

Doctoral Dissertation

**Design of Psychological Self-Help Support
for Olympic Athletes after Retirement**

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Summary of Doctoral Dissertation

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Title: Design of Psychological Self-Help Support for Olympic Athletes after Retirement			
Abstract: <p>Elite athletes aiming for the Olympics are often nurtured within the sports success framework developed by the sports policies in their own countries. Although some are involved in several Olympic Games, athletes who make it to the Olympics ultimately retire from sports. Multifaceted support is needed to meet various difficulties at retirement, and the National Olympic Committees of each country have begun to develop career support for present and retired athletes. Psychological adjustment difficulties, one type of difficulty at retirement, are identified as continuing for a long time after retirement. However, retired athletes who are no longer registered as athletes in their sports organizations are beyond the scope of existing support. Moreover, previous studies have pointed out that elite athletes have difficulties in seeking support due to their psychological state after retirement. This makes it difficult to observe actual situations of retired athletes.</p> <p>This thesis aims to demonstrate the process of clarifying the psychological difficulties of retired Olympic athletes, and to design tailored support using the case of Japanese career support and Japanese retired Olympic athletes. To achieve this aim, the conceptual model of adaptation to retirement is applied, and each factor in the model is investigated. With regard to the available resources as one of the factors in the model, the current situation of career support is investigated and it is found that Japan's career support has developed occupational support, but psychological support is not provided due to a lack of psychological professionals.</p>			

To clarify what kind of support Japanese Olympic athletes might need after retirement in Japan's current situation without psychological support, retired Olympic athletes are examined with reference to the factors in the model: the causes of retirement, developmental experiences, and difficulties in adaptation to athletic retirement. For the causes of retirement, 473 retired Olympic athletes are analyzed in groups as follows: male/female participants in the Summer Games (SMO/SFO), and male/female participants in the Winter Games (WMO/WFO). The results show that the percentage of SFOs who retired for psychological reasons was relatively higher than that of SMOs, WMOs, and WFOs. Regarding developmental experiences, through the life story analysis method with a female Olympic medalist, it is revealed that developmental experiences during the athletic career affected the athlete's identity formation and loss of self-confidence after retirement. In addition, regarding types of stressors in adaptation to retirement, a survey of retired female elite athletes from 13 sports highlights both emotional and psychological difficulties.

The findings reveal that athletes not only have psychological difficulties, but also have difficulties in seeking help. Based on this fact, psychological Self-Help support for retired athletes is designed around the concept of mental health literacy in elite athletes. The purpose of the support is to increase the degree to which athletes are able to seek professional help by improving knowledge about what career support is and what the psychological difficulties in retirement are. The support is evaluated by a study of effectiveness and feasibility, in which 24 retired female Olympic athletes including 19 medalists participated.

This thesis is conducted using a systems engineering approach, and makes an original contribution to the existing conceptual model of adaptation to retirement. The practical contribution of applying the Self-Help support is suggested. In the above points, this thesis contributes further knowledge in the field of psychological self-help support, especially among elite athletes such as Olympic athletes.

Keywords: Elite athletes, Mental health literacy, Olympic athletes, Psychological support, Retirement, Self-help

論文要旨

学籍番号	815552027	氏名	ウルヴェ 京
主論文題名： オリンピック選手の競技引退後における心理的自助支援の設計			
(論文要旨) オリンピックを目指す一流選手は、自国のスポーツ政策で作られた成功戦略の中で育つことが多い。何度もオリンピックを経験する選手もいるが、オリンピックに出場した選手たちは競技を引退する。引退時の様々な困難に対応するためには多面的な支援が必要であり、各国オリンピック委員会では現役・引退選手のキャリア支援を展開し始めている。引退時の困難の一つである心理的困難は引退後も長く続くことが確認されている。ただし所属していた競技団体への選手登録から外れた引退選手は、従来の支援対象外となる。さらに先行研究では、一流選手は引退後の心理状態により、他者へ支援を求めることが困難であることが指摘されている。そのため、引退した選手の実態が見えにくくなっている。 本研究では、日本のキャリア支援と日本人の引退したオリンピック選手のケースを用いて、引退したオリンピック選手の心理的困難を明らかにするプロセスを示し、テラーメイドの支援を設計することを目的とした。 この目的を達成するために、引退適応の概念モデルを用いてモデルの各影響因子を調査した。モデルにある要因の一つである「利用可能な資源」について、キャリア支援の実態を調査したところ、日本のキャリア支援は職業支援を発展させたものであるが、心理学的な専門家がいないために心理支援が行われていないことが明らかになった。 心理支援のない日本の現状から、日本のオリンピック選手が引退後にどのような支援を必要としているのかを明らかにするために、モデルの各因子（引退理由、発達体験、競技引退への適応に向けた困難）について引退したオリンピック選手を調査した。引退したオリンピック選手 473 名を、夏季大会に出場した男性/女性（SMO/SFO）、冬季大会に出場した男性/女性（WMO/WFO）に分けて分析した。その結果、SFO の心理的理由に			

よる引退の割合は,SMO,WMO,WFO に比べて相対的に高くなった.発達体験については,女性オリンピックメダリストを対象としたライフストーリー分析の手法により,競技人生での発達体験が,引退後のアスリートのアイデンティティ形成や自信喪失に影響を与えていることが明らかになった.また,引退後の適応に関するストレス要因については,13 競技の引退した女性一流選手を対象とした調査により,感情的・心理的な困難が浮き彫りになった.

これらの結果,心理的困難とともに,「一流選手は助けを求めることが難しい」という課題が明らかになった.この事実をもとに,一流選手のメンタルヘルスリテラシーの概念を用いて,引退した一流選手のための心理的自助支援を設計した.支援の目的は,「キャリア支援とは何か」「引退後の心理的困難とは何か」という知識を身につけることと,選手が専門家に相談する度合いを高めることとした.この支援は 19 人のメダリストを含む合計 24 人の引退した女性オリンピック選手が参加したフィージビリティスタディの効果によって評価した.

本研究は,システムズエンジニアリングのアプローチによって行い,既存の引退適応の概念モデルに対して独自性のある貢献をしたと考える.また,自助支援を適用するための実践的な貢献も提案した.以上の点から,本研究は,特にオリンピック選手などの一流選手の競技引退後の心理的自助支援において,知見の獲得に貢献できた.

キーワード：一流選手メンタルヘルスリテラシー,オリンピック選手,心理支援,競技引退,自助

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1 INTRODUCTION

1.1 BACKGROUND

1.1.1 OLYMPIC ATHLETES IN THE SPORT SUCCESS FRAMEWORK

Elite athletes aiming for the Olympics are often nurtured in the sport success framework developed by the sports policies in their own countries. De Bosscher, et al. (2006) developed a conceptual framework for analyzing sports policy factors based on a literature review of the determinants contributing to international sporting success (Figure 1.1) (De Bosscher et al., 2006).

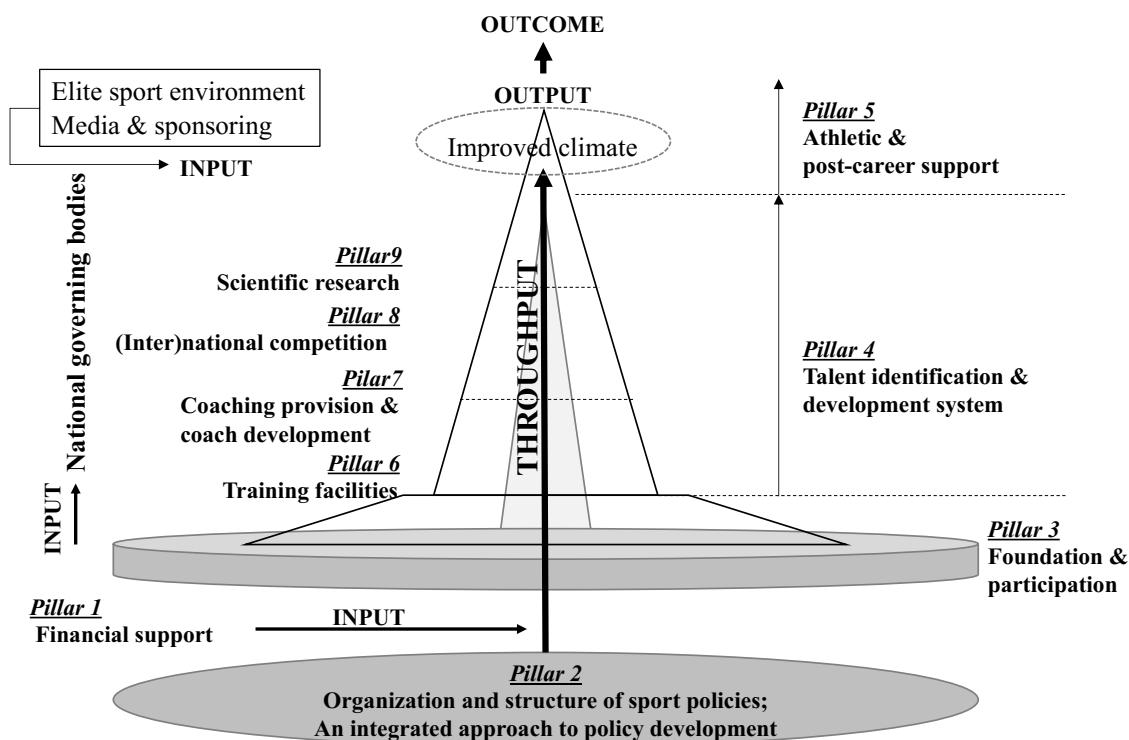


Figure 1.1 The nine pillars of sports policy factors (De Bosscher et al., 2006)

In the framework, the pillars 3, 4, and 5 show the development process of athletes becoming elite: from Foundation & participation, Talent identification & development system, to Athletic & post-career support. Wylleman et al., (1998) added the post-career support as the discontinuation phase of the framework, which occurs when the athletic career comes to an end (Wylleman et al., 1998). These transitions in the sporting career of an athlete are often accompanied by athletic, psychological, psycho-social, academic & vocational, financial, and legal transitions all taking place at different times (Wylleman, 2019b) (Figure 1.2).

Age	10	15	20	25	30	35	
Athletic Level	Initiation		Development		Mastery		Discontinuation
Psychological Level	Childhood		Puberty/ Adolescence		(Young) Adulthood		
Psycho-social Level	Parents/ Siblings/ Peers		Peers/ Coach/ Parents		Partner, Family, Coach, Support staff, Teammates, Student-Athletes, Students		Family, (Coach), Peers
Academic & Vocational Level	Primary Education		Secondary Education		(Semi) Professional Athletes Higher Education		(Semi) Professional Athletes Post Sport Career
Financial Level	Family		Family, Sport Governing Body		Sport Governing Body, NOC, Sponsor, Family		Family, Employer
Legal Level	Minor			Adult (of age)			

Figure 1.2 The holistic athletic career model (Wylleman, 2019b)

1.1.2 OLYMPIC ATHLETES DEVELOPMENT FRAMEWORK IN JAPAN

Kinugasa et al. (2019) applied the framework in the Japan Sport Council (JPC), which runs the High Performance Sport Center located in the National training center for

Olympic athletes, and explained about the athletes' development framework for becoming elite, based on the Japanese sports policy (Kinugasa et al., 2019). It shows Foundation (F1: Acquisition and mastery of basic movements, F2: Acquisition and refinement of movements, F3: Dedication to sports and athletic competitions), Talent (T1: Manifestation of sports talents / classifications, T2: Verification of sports talent, T3: Practice and attainment, T4: Breakthroughs and praise), Elite (E1: Elite representatives, E2: Achievements, E3: Success), and Mastery (M1: Sustainable success) which can be categorized as being in pillars 4 and 5 of the original conceptual framework by De Bosscher et al. (2006). However, the post-career support within the pillar 5 is not explained in the Japanese framework.

1.1.3 CAREER SUPPORT FOR ATHLETIC RETIREMENT

It is inevitable that elite athletes retire from their sports. Retirement from elite level sport, often referred to as the transition out of sport, is the process of ending a competitive career as an athlete and beginning a new life (Park et al., 2013a). In this retirement process, various research has indicated that athletes need to adjust to numerous psychological, social, and vocational changes (Cecić Erpič et al., 2004; Stambulova et al., 2007). To adjust to these changes, sports organizations such as national Olympic committees (NOCs) have developed career support for Olympic athletes. Park et al. (2013a) conducted a systematic review of retirement from sport that included 126 studies published between 1968 and 2010 and that covered 13,511 athletes, of whom 1,768 (16%) reported that their career transition experiences had involved adjustment difficulties or problems (Park et al., 2013a). Career support provides several interventions supporting athletes in their sporting careers and their interaction with other life contexts. There are two major perspectives in career transition interventions: (1) preventive/supportive and (2) coping with crisis/negative consequences (Figure 1.3) (Stambulova & Wylleman, 2014). The preventive/supportive perspective interventions are aimed at helping athletes to prepare themselves for the forthcoming/current transition

demands and dual career balance. Interventions for coping with crisis/negative consequences include assisting athletes to analyze crisis/traumatic situations and find the best ways to cope. Career support is often structured into programs, organized by an institution. From the perspective of career development and career transitions in sport, Wylleman et al. (2004) defined career support programs as integrated and comprehensive combinations of workshops, seminars, educational modules, individual counseling and/or a referral network providing individualized and/or group-oriented multidisciplinary support services to athletes with regard to their athletic participation, developmental and lifestyle issues, and educational and vocational development (Wylleman, Theeboom et al., 2004).

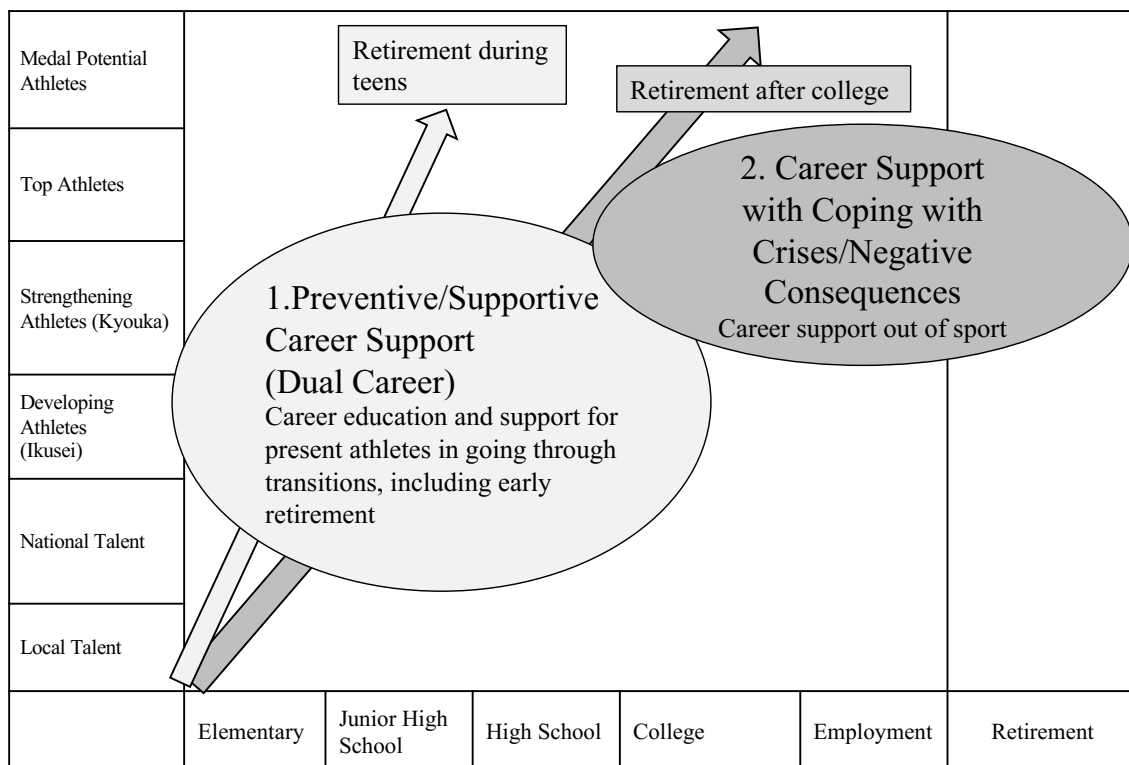


Figure 1.3 Types of career support for athletic retirement (Stambulova and Wylleman, 2014)

The spread of career support programs around the world caught the attention of academic research. Stambulova & Ryba (2013) reviewed career transition research and career support and assistance programs in 19 countries (Australia, Belgium, Brazil, Canada, China, Denmark, France, Germany, Greece, Ireland, Japan, Mexico, New Zealand, Russia, Slovenia, Spain, Sweden, the UK and the USA). The authors concluded that "in spite of some commonalities in the content of programs in different countries, career support is more contextualized and culturally informed than career research because practitioners are 'closer' than researchers to the athletes' everyday life and lived culture". The importance of specificities and evidence-based local practices was highlighted. However, the argument was expanded in this contribution by highlighting that career programs were mainly based on athletes' needs, but lacked the support of scientific evidence derived from their evaluation.

1.1.4 CONCEPTUAL MODEL OF RETIREMENT FROM SPORT

Lavallee et al. (2014) outlined a conceptual model of adaptation to retirement to gain a better understanding of the career termination process (Figure 1.4). In the model, psychological adjustment to athletic retirement was influenced by three interrelated factors. The first involves the causes of athletic retirement, with a focus on voluntary and involuntary reasons for retirement. The second factor considers resources available for coping and adaptation to career transition, including social support. The third factor in the model involves developmental experiences related to the adaptation process, focusing specifically on identity-related issues. As Lavallee et al. (2014) suggest that the conceptual model can assist organizations in developing effective support system once specific retirement difficulties are demonstrated, appropriate psychological support can be recommended. At the present time, however, there has been very little research conducted on the needs of retiring and retired athletes and the system requirements to help them make an optimal transition.

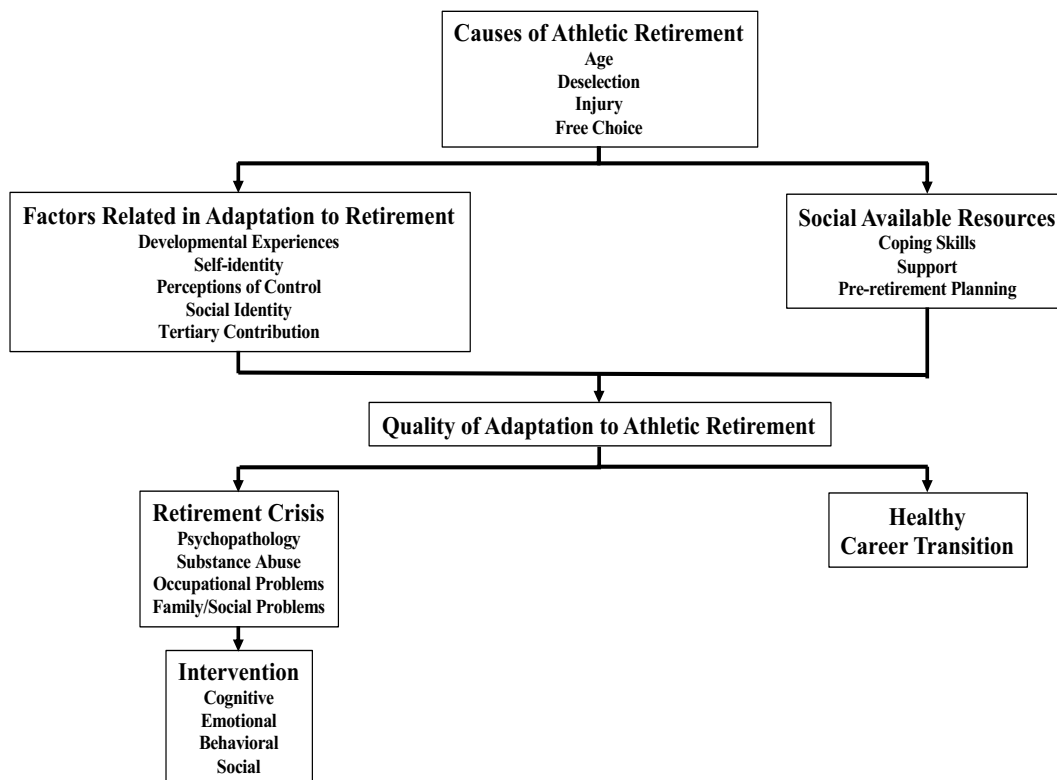


Figure 1.4 The conceptual model of adaptation to retirement (Lavallee et al., 2014)

1.1.5 PSYCHOLOGICAL DIFFICULTIES

A systematic review (Park et al., 2013a) investigated what percentage of athletes experience psychological adjustment difficulties following retirement from sport. The study found that across 126 published studies and 13,511 participants, 16% (1,768) athletes reported career transition difficulties. Park et al. also observed that most studies (i.e., 68%) reported that their participants expressed negative emotions, feelings of loss, identity crises, and distress when they ended their career. The experience of loss, in particular, has been a focus for sport career transition practitioners and researchers (Lavallee et al., 2014). Petitpas (1997) explained the common reaction to ending an elite career in professional and elite athletes through their experiences of working with retiring and retired athletes (Figure 1.5), and mentioned that these feelings could last several

months or even several years. For example, a newspaper, The Denver Post (2020) featured elite athletes' mental health issues. In the article, Michael Phelps, a multiple Olympic gold medalist in swimming, revealed that he had had suicidal thoughts at the peak of his remarkable swimming career and called depression and suicide among Olympic athletes an "epidemic". In addition,, Jeremy Bloom, a three-time world champion skier and two-time Olympian, also said, "It [Sport] does define you, and you lose your human identity". However, retired elite athletes' psychological difficulties after retirement are not easily to get supported through the existing career support (Lavallee & Wylleman, 2000; Petitpas, 1997). One of the reasons is explained in research (Brown et al., 2018) indicating that elite athletes have difficulties in seeking help. Goutteborge et al. (2021) also revealed that the two-thirds of the participants at the International Olympic Committee (IOC) Athletes' Forum in 2019 agreed that talking about mental health symptoms was taboo in elite sports (Goutteborge et al., 2021). To support and help those elite athletes, a different method from the existing career support needs to be considered. At the same time, especially those who are retired might be assumed to find it more difficult to access help, since they are out of the sport organizations' support frameworks.

Table 1.1 Complex psychological difficulties in elite athletes

Common reaction to ending elite career in Pro and elite athletes

1. Sadness over loss of the sport
2. Loss of self identity
3. Anger at circumstances surrounding the end of the career
4. Loneliness at separating from teammates and coaches
5. Fear of an uncertain future
6. Loss of confidence toward life
7. Frustration over no longer having a special status in life
8. Fear of being behind everyone in the career world
9. Frustration over losing a sense of entitlement
10. Concerns about managing money

1.1.6 SELF-HELP INTERVENTION NEEDS PRIOR TO SOCIAL SUPPORT

Regarding adjustment difficulties at athletic retirement, research has been done into numerous personal and contextual factors that influence the process of adjustment. One of the consistent findings is the importance of social support during transition. Athletes who feel supported find it easier to adjust to retirement transition (Park et al., 2013a). Social support refers to "social interactions aimed at inducing positive outcomes" (Bianco & Eklund, 2001). Social support has been referred to as a 'multi-construct' comprising three primary dimensions: (1) a structural dimension that reflects the composition and quality of social support networks; (2) a functional dimension that reflects the social exchanges involved in providing and receiving support, including the type of support that is delivered; and (3) an appraisal dimension that includes assessments of the availability and quality of support (Vaux, 1988). The functional dimension of social support concerns support that is actually received or enacted, such as emotional support, informational support, esteem support, and tangible support such as financial support. The appraisal dimension of social support is referred to as 'perceived support'. The perception that support is available, regardless of whether that support is actually sought or received (Barrera, 1986). Research on transition has tended to focus on the structural and functional dimensions of social support by highlighting the types of support that athletes have received, and from whom (Park et al., 2013a). For example, athletes reported that when they received information from organizations, former teammates, and coaches they were able to manage their transition better (Park et al., 2012). Furthermore, athletes who received tangible support to develop their career within a formal support program from national sporting organizations experienced fewer difficulties following retirement than those athletes who did not receive support (M. Leung et al., 2005). The importance of emotional and esteem support has been discussed widely, with findings suggesting that these types of support can help with account making, reducing emotional distress, and fostering positive self-regard (Grove et al., 1998; Lavalley et al., 2000; Perna et al., 1996).

However, research on perceived support during transition at retirement is scarce. In general, the evidence suggests that athletes who feel supported during transition experience fewer difficulties. Indeed, athletes have reported a lack of organizational support, leading them to feel used and abandoned as they struggled with their transition (G. Brown & Potrac, 2009). Furthermore, athletes' social networks tend to be related to their involvement in sport. It would be imagined that retired athletes may quickly lose contact with network members such as coaches, staff, and teammates, and thus receive little support from them (Lally, 2007; Sinclair & Orlick, 1993). As a result, retired athletes may become lonely and socially isolated, hindering their ability to adapt to their new life (Park et al., 2013a). Given the limited availability and quality of support from sporting organizations and social networks within sport, it is supposed that many athletes turn to family and friends for support during transition. Family members and friends often play an important role in transition by providing work opportunities, career support and assistance, and emotional support (Kadlcik & Flemr, 2008; Werthner & Orlick, 1986). In particular, partners/spouses have been recognized as important sources of emotional comfort and, in many cases, are seen by athletes as their primary source of support (Sinclair & Orlick, 1993). However, there is variability in the quality of the support that athletes receive from family and friends. Athletes who have experienced difficult transitions have reported that their family and friends did not fully understand what they were going through. As a result, athletes found it difficult to turn to them for support or see value in the support that was offered (Gilmore, 2008). Based on this research, social support should be understood in the context of the recipient's evaluations of the support rather than of the support itself (Lahey & Cohen, 2000). Brown et al., (2018) explored retired elite athletes' subjective experiences of social support at their retirement to understand their perceptions of the support. It was found that retired athletes felt that they had received support from various people, including their families, at retirement. However, they also felt that the level of support offered by their sports organizations was

limited, and with the changed relationships with their coaches after retirement, they felt lonely. They also had difficulty in seeking help even when they were experiencing significant psychological distress. The reasons why seeking help was difficult were that they felt ashamed to ask and their self-concept as being "mentally tough" prevented them from seeking help. Indeed, athletes often have difficulty in seeking help because they are often discouraged from showing psychological, emotional, or physical weakness when competing (Sinden, 2010). Even after retirement, their athletes' identities associated with being physically and mentally tough make it difficult for them to seek help (Andersen, 2011). The feelings of shame in seeking support may be related to the perceived social costs associated with losing their 'elite' identities (Brown et al., 2018). Brown et al. (2018) concluded that as a result, athletes may be unwilling or unable to engage with social support in the first instance. Therefore, self-help interventions should have less threatening first step to encourage retiring and retired athletes to engage with support and seek help, especially if delivered online.

1.1.7 CAREER SUPPORT IN JAPAN

The Japan Sports Agency launched a Sports Career Support Consortium in January 2017 before the 2020 Tokyo Olympic Games in order to unify all Japanese sports organizations (e.g., Japanese Olympic Committee (JOC) and Japan Sport Council (JSC)), which had individually had developed career support programs for elite athletes, including Olympic athletes. The overall aim was to design a career support program with consistency and continuity for present, retiring, and retired elite athletes. At present, the JOC career support program, called "JOC Career Academy" (JCA) is for present and retired Olympic athletes, and the JSC career support program, called "JSC Dual Career Education Program" is available to present and retired athletes. (Since 2020, private companies have been conducting dual career projects commissioned by the Japan Sports Agency.) When designing a career support program for Olympic athletes at their retirement, it is important to consider athletes' needs (Stambulova & Ryba, 2013). The

JOC started developing a career program for Olympic athletes in 2002, and then launched the JCA to coincide with the launch of the National Training Center in 2008. Hong & Coffee (2018) conducted a survey about the contents of career programs across 19 countries (Hong & Coffee, 2018), including Japan, and found that: the JOC is responsible for delivering the JCA program; JCA runs its own program distinct from the IOC Athletes Career Program; JCA offers tailored support services depending on athletes' needs; and JCA does not have specific practitioners who have knowledge of athletic career transition for the program. The JCA offers its own program with tailored support services despite the absence of specific practitioners. There is no clarity about details of what kind of specific practitioners are absent, nor of what kind of tailored support services based on the athletes' needs are available at JCA. In Japan, several studies have been conducted on the retirement experiences of elite athletes. Toyoda and Nakagomi (1996) found that Japanese athletes faced some psychological difficulties following athletic retirement (Toyoda & Nakagomi, 1996). Nakagomi (2012) highlighted the risks associated with a strong and exclusive athletic identity for retiring Japanese athletes (Nakagomi, 2012).

1.2 RESEARCH OBJECTIVE

Based on the extant research, the following issues should be investigated. 1) The nine pillars of sports policy factors include career support as the pillar five. However, the Japanese framework has not included the career support, and it is unclear why this is not in the framework. 2) Career support programs for elite athletes have been developed in many countries based on athletes' needs. However, research evaluating the program is scarce. 3) Retired elite athletes have psychological difficulties after retirement. Yet they have difficulty in seeking help. It has not yet been adequately investigated what kind of support is needed to assist these athletes.

Therefore, the objective of this thesis is to investigate what kind of support is needed with psychological difficulties among retired elite athletes who are out of the sports

organizations. To achieve this objective, the thesis demonstrates the process of clarifying the psychological difficulties of retired Olympic athletes and designing tailored support, using evidence from Japanese career support and Japanese retired Olympic athletes.

1.3 CONTRIBUTION OF THIS WORK

The thesis contributes to the advancement of knowledge in the area of athletic retirement among retired elite athletes in several ways. The original contributions: 1) demonstrate a systematic analysis of both existing career support and the needs of retired athletes with psychological difficulties at their retirement, using a conceptual model to investigate the gaps between the support and the needs of the athletes as users of the support, and 2) demonstrate how to design the support to fill the gap between the support and needs. In more than 30 years of research on athletic retirement and career transition, little research has been done with Asian athletes or published in English, and to date no research on existing Japanese career support for Olympic athletes has analyzed whether the support is fulfilling the needs of the athletes. The findings of the thesis may be helpful in expanding knowledge about athletic retirement and career transitions in different cultural backgrounds.

Finally, through the originality and the usefulness of the thesis, the thesis presents the challenge of developing a new way of supporting retired athletes by designing psychological Self-Help support for athletes who have difficulty seeking help from existing support programs. This challenge is expected to benefit retired athletes with psychological difficulties and those who are not willing to express their feelings to others.

1.4 DEFINITION OF TERMS

Athletic identity: The degree to which an individual identifies with the athletic role (Brewer, Van Raalte et al., 1993).

Athletic identity foreclosure: Commitment to the athletic role in the absence of exploration of occupational or ideological alternatives (Brewer & Petitpas, 2017).

Athlete support program: Programs designed to develop athletes' social, educational, and vocational skills (Anderson & Morris, 2000).

Career support: Career support developed by National Olympic Committees (NOCs) is also called "Career Assistance". The aim of Career Assistance (CA) is to help athletes with various issues related to their careers in and outside of sport (N. Stambulova & Wylleman, 2014). The term, Career support is used in the thesis because IOC has been using the term, "Career support" for the support of Olympic athletes.

Retired elite athletes: Retired elite athletes are defined as those who used to be professional or Olympic athletes (Gorczyński et al., 2021).

Transition: An event or non-event, which results in changes in oneself or one's world, behavior, or relationships (Schlossberg, 1981).

Mental health literacy: "A state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to her or his community" (WHO, 2018).

1.5 STRUCTURE OF THE THESIS

Figure 1.5 shows the outline of the thesis, which consists further of the following chapters. Chapter 2 reviews the related works, covering: 2.1 Retirement from elite sports, 2.2 Theoretical framework for athletic retirement, 2.3 Athletic career support in Olympic committees, and 2.4 Problems defined. Chapter 3 investigates the existing career support programs for Olympic athletes in Japan. Chapter 4 analyzes the support needs of elite athletes after athletic retirement. It includes: 4.2 Causes of retirement among Japanese Olympic athletes, 4.3 Developmental experiences and athletic identity, and 4.4 Needs related to stress and coping after retirement among elite athletes. Chapter 5 designs a

psychological Self-Help support as a psychological support based on the research findings. Chapter 6 discusses the results and findings of this thesis and describes the future study directions. Finally, Chapter 7 concludes the thesis. In Figure 1.6, all related published papers and conference presentations are listed.

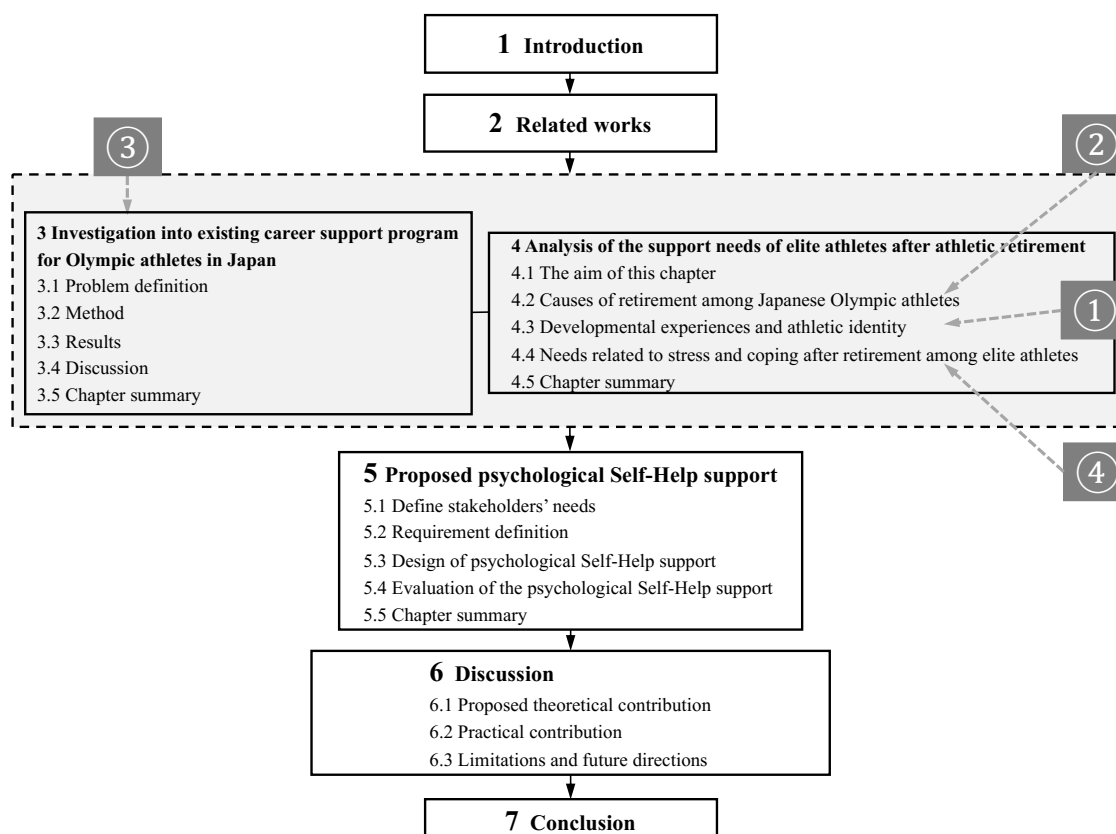


Figure 1.5 Structure of the thesis

1. Oulevey, M., Hirata, D., Lavalley, D., & Kohtake, N. (2020). Developmental Experiences Related to Retirement from Sport: Insights from Japan. *Journal of Loss and Trauma*, 1-20.
2. Oulevey, M., Tsutsui, K., & Kohtake, N. (2018). Quantitative research on Japanese Olympians' causes of career termination depending on the differences between Summer/Winter and male/female. *Journal of Japan Society of Sports Industry*, 28(4), 295-306. (Paper Awarded in 2019 at the conference.)
3. Oulevey, M., Tsutsui, K., Lavalley, D., & Kohtake, N. (2020). Analysis of Career Support Programs for Olympic Athletes in Japan with Fifteen Conceptual Categories. *International Conference on Olympic Sports* <https://panel.waset.org/conference/2020/07/tokyo/ICOS>
4. Oulevey, M., Lavalley, D., & Kohtake, N. (2020). Matching Coping Strategies to Athletic Retirement Stressors among Japanese Female Athletes. *International Conference on Psychology* <https://waset.org/psychology-conference-in-november-2020-in-tokyo>

Figure 1.6 Papers related to the thesis

2 RELATED WORKS

This chapter outlines related works on athletic retirement and discusses issues unsolved through existing research. First, research on retirement from elite sports is presented. Then conceptual models of career transition in sport, which have been developed to explain athletes' career transition process at retirement, are discussed. Existing intervention programs for supporting elite athletes are provided. Finally, gaps in the research area and focuses of the current thesis are highlighted.

2.1 RETIREMENT FROM ELITE SPORTS

Early research on athletes' retirement and career transition was done by Haerle, (1975) and Mihovilović, (1968). Haerle collected data from 312 former professional baseball players and revealed that more than half of the participants experienced negative emotions regarding the end of their sports career, and most of the respondents considered their post-retirement lives or plans only when they retired. Mihovilovic acquired data from 44 Yugoslavian amateur soccer players focused on the causes of retirement and the general mechanism of the career transition. The study showed that they had negative emotional responses and vocational needs. This research (Haerle, 1975; Mihovilović, 1968) was not conducted with theories or any conceptual models, because of the lack of elaborated theoretical frameworks. Therefore, researchers (Johns et al., 1990; McPherson, 1980; Rosenberge, 1981; Washington, 1981) tried to understand the phenomenon of athletes' retirement and career transitions by comparing several social gerontological theories e.g., activity theory (Havighurst & Albrecht, 1953); disengagement theory (Cummings et al., 1960); and social breakdown theory (Gruenberg & Zusman, 1964). Social gerontological theories (Atchley, 1976) focused on interactions between society and aging individuals, concentrating on retirees from the general workforce. Each of

these theories might explain some aspects of athletes' experiences of career transition. However, researchers (Lavallee, 2000; McPherson, 1980) have argued the incompatibility between social gerontological theories and athletes' retirement and career transition, based on differences in the timing of retirement and developmental and vocational needs after retirement occurs. Some researchers (e.g., Fortunato & Marchant, 1999; Lerch, 1984) have suggested applying thanatological models to understand the athletes' retirement process, which are more focused on athletes' emotional reactions and psychological experiences than social gerontological theories. Thanatology is the study of the process of death and dying (Lavallee, 2000). Thanatology studies have not just focused on individuals' physical death or psychological death or physical death, but also on social death. In a sports context, researchers have employed three thanatological models to understand athletes' retirement, including social death (Kalish, 1966), social awareness (Glaser & Strauss, 1965), and stages of death (Kübler-Ross, 1969). The thanatological models have been supported specifically by studies with participants who have experienced forced retirement from their sport (e.g., Fortunato & Marchant, 1999; Lerch, 1984; Zaichkowsky et al., 2000). There are associations found between athletes' retirement and these thanatological models. However, the applicability of the models has been debated among researchers due to the lack of explanation about what causes adjustment difficulties in the athletic career transition process (e.g., Coakley, 1983; Lavallee, 2000). Moreover, athletes' retirement can be considered as a social rebirth and a process, rather than social death or a singular event (e.g., Koukouris, 1991; Taylor & Ogilvie, 1994). Therefore, some other researchers have tried to apply process-oriented transition models to understand the process of athletes' retirement and career transitions. Whereas social gerontological and thanatological models view retirement as a singular event, transition models (Schlossberg, 1981) characterize retirement as a process. Transition models describe changes in individuals' worlds, behaviors, and relationships. Schlossberg's (1981) model of human adaptation to transition is one of the models most

applied to investigate the athlete career transition process (e.g., Sinclair & Orlick, 1994; Swain, 1991). The model tries to explain all the kinds of transitions that human beings experience during their lifespan. It contains three major factors that influence transition outcomes, including individuals' perceptions of the transition (e.g., role change, affect, and timing), characteristics of pre-transition and post-transition environments (e.g., internal support system or institutional support), and characteristics of the individual (e.g., psychosocial competence, age, and state of health). Based on findings from athletic studies, Schlossberg's model seems to explain athletes' retirement and career transition as a process (Schlossberg, 1981). For example, in the athletic context, perceptions of the particular transition can be considered as reasons for sports career end, timing of retirement, and individuals' perspectives on the consequences of the transition. The characteristics of pre-transition and post-transition environments include athletes' social support networks and institutional support, such as support from sports organizations, and characteristics of the individual include demographic factors and degree of life skills development. However, other researchers have noted the limitations of Schlossberg's model because of the lack of operational detail associated with the specific components as they relate to sports career transitions (Taylor & Ogilvie, 1994). In fact, social gerontological and thanatological models do not indicate what factors influence the quality of adaptation to retirement from sport, and transition models that have been applied to sport lack operational detail of the specific components related to the career transition and retirement adjustment process (Taylor et al., 2006). Since the 1990s, based on previous findings in the research area, researchers have attempted to develop models that specifically explain athletes' career transitions and retirement (e.g., Gordon, 1995; Sinclair & Orlick, 1994; Stambulova, 1994; Taylor & Ogilvie, 1994; Wylleman & Lavallee, 2004).

2.2 THEORETICAL FRAMEWORK FOR ATHLETIC RETIREMENT

Sinclair & Orlick (1994) and Gordon (1995) introduced modified models of Schlossberg's (1981) human adaptation to transition model. The modified transition models were developed to provide more precise perspectives on the athlete career transition process and retirement. Taylor & Ogilvie (1994) developed a conceptual model of adaptation to retirement among athletes based on empirical findings to provide better understanding of athletes' retirement experiences. Stambulova (1994) suggested psychological models of the sports career that contain two aspects: synthetic description (series of essential characteristics of sports career) and analytic description (chronological periods and crisis). Then, Wylleman & Lavallee (2004) introduced the developmental model, which explains athletes' normative transitions during the whole athletic career, based on individuals' developmental experiences. The models of Taylor & Ogilvie (1994) and Wylleman & Lavallee (2004) are the most widely used models explaining different aspects of athletic careers. For example, these two models have been used to understand athletes' retirement from their sport (Coakley, 2006; Munroe et al., 1999), and examine within transitions with sports careers (Pummell et al., 2008). Findings (e.g., Coakley, 2006; Pummell et al., 2008) indicated that these models provided explanatory variables which help to predict particular aspect of athletes' career transitions.

2.2.1 CONCEPTUAL MODEL OF ADAPTATION TO RETIREMENT

Taylor & Ogilvie (1994) developed a conceptual model of adaptation to retirement among athletes based on literature on retirement from sports, and in 2014, the model was updated by Lavallee et al. (2014). The model shows three major factors that influence the quality of adaptation to retirement, including causes of athletic retirement, factors related to adaptation to retirement, and available resources for adaptation to retirement. The model also indicates potential consequences of athletes' retirement (career transition

distress and healthy career transition) and suggests providing interventions if athletes experience career transition distress.

Causes of athletic retirement

The causes of athletic retirement include age, deselection, injury, and free choice. The causes are considered as one of the significant predictors for the quality of adaptation to retirement. Lavalley et al. (1997) showed that involuntary reasons such as age, deselection, and injury are important issues in athletic retirement. The voluntariness of the retirement decision was found in previous studies (e.g., McKenna & Thomas, 2007; Werthner & Orlick, 1986) to be one of the influential factors in athletes' quality of adaptation to athletic retirement. Research by Wylleman et al. (1993) demonstrated that many individuals freely elected to terminate their sports career for a combination of personal and psychological reasons. Some athletes may decide to end their careers because of financial reasons, ethnic or gender-related issues, or an overall lack of life satisfaction, whereas others may want to spend more time with their families and friends (Baillie, 1993).

Factors related to adaptation to retirement

The factors related to adaptation to retirement include developmental experiences, self-identity, social identity, perception of control, and territory contributors (such as financial resources and health status). Through developmental experiences in sports environments, athletes develop identities. Researchers have shown that athletic identity, "the degree to which an individual identifies with the athlete role" (Brewer et al., 1993), can have a significant effect on the quality of adjustment. Brewer and his colleagues (Brewer et al., 1993; Good et al., 1993) discussed athletic identity within the framework of a multidimensional construct and described a person with strong athletic identity as "more likely to interpret a given event (e.g., an injury) in terms of its implications for that individual's athletic functioning than a person only weakly identified to the athlete role"

(Brewer et al., 1993). Brewer et al. also described athletic identity as a social role, one that is heavily socialized by the influences of family, friends, coaches, teachers, and the media. Whereas the benefits of strong athletic identity include adherence to and involvement in sport and exercise, development of athletic skills, sense of self, and confidence, the potential risks of strong athletic identity relate to difficulties athletes may experience during career transitions and specifically problems associated with deselection, injury, and athletic career retirement (Murphy et al., 1996; Pearson & Petitpas, 1990). A strong and exclusive athletic identity is thought to be a risk factor for emotional problems following retirement because "individuals who strongly commit themselves to the athlete role may be less likely to explore other career, education, and lifestyle options due to their intensive involvement in sport" (Brewer et al., 1993, p. 241). Research has provided support for the hypothesis that strong exclusive athletic identity creates potential for emotional difficulties upon retirement. For example, Lavalley & Robinson (2007) conducted a study of female gymnasts and found that those who adopted an identity based solely on their role as a gymnast knew little about who they were or what they wanted to do with their lives upon retirement, and were consequently forced to distance themselves from their past to establish a new identity apart from gymnastics. Webb et al. (1998) demonstrated that athletes who ascribe great importance to their involvement in sport are more at-risk of experiencing retirement-related difficulties than those who place less value on the athletic component of their self-identity. In this study among 91 high school, college, and professional athletes, athletic identity was related to retirement difficulties but not to overall life satisfaction. Finally, Lally (2007) reported that athletes who proactively diminish their athletic identity prior to retirement are more likely to experience a healthier career transition at retirement. Athletes in this qualitative study had anticipated disrupted identities post-retirement, and therefore, protected their identity during the career transition process. Another factor, the perception of control,

indicates the degree to which an athlete is aware of his or her control over retirement decisions.

Available resources

Available resources for adaptation to career transition include athletes' coping resources and support networks during the retirement process, such as coping strategies, social support, and pre-retirement planning. Several research studies revealed that social support from significant others, in terms of both psychological and instrumental support, plays an important role in athletes' career transitions at retirement (e.g., Leung et al., 2005; Warriner & Lavalley, 2008). Studies showed that athletes tried searching for social support from others close to them during the retirement process, and athletes stated that support from family and friends had helped them to ease transition difficulties (e.g., Young et al., 2006). Pre-retirement planning is one of the significant influential factors in the quality of athletes' transitions because pre-retirement planning includes various activities, such as having other interests during the athletic career and developing life skills (see e.g., Alfermann et al., 2004). According to findings from North & Lavalley (2004), athletes may have two different plans for their career transitions, including short-term plans and long-term plans. This result might suggest a need to identify differences in these two plans, in terms of time frames for the planning and differences in focuses of the plans. Although several researchers have examined social support networks among involuntarily retired athletes, such as retired injured athletes (e.g., Ford & Gordon, 1993; Udry, 1997), little research has been conducted in this area with voluntarily retired athletes. A number of theorists have outlined the obligations of coaches and sports associations in preparing athletes for retirement from high level competition (e.g., Thomas & Ermler, 1988), and research by Fortunato & Marchant (1999) found that those athletes who had terminated their career on a voluntary basis and/or remained actively involved in their sport (e.g., as a coach) experienced more positive transitions than did those who ended their careers due to injury or deselection.

However, research on any psychological difficulties in voluntarily retired athletes who decided to leave sports organizations is scarce.

Adaptation to retirement

The models of Taylor & Ogilvie (1994) and Taylor et al. (2006) also show the positive and negative consequences of athletes' retirement. The models contain possible crises athletes may face, including psychopathology, substance abuse, occupational/financial problems, and family/social problems. Previous studies showed that athletes' retirement from sport can be either a moderate change or not a difficult experience for them (e.g., Alfermann, 1995; Johns, et al., 1990); however, there were also athletes who perceived the end of their sports career end as a traumatic experience (e.g., Lally, 2007; McKenna & Thomas, 2007).

Intervention strategies

Finally, the model suggests several intervention strategies for assisting in athletes' cognitive, emotional, behavioral, and social issues, including organizational support. Taylor et al. (2006) noted that there is a need to help athletes to have a balanced identity and organizational support. In addition, the model suggests that it might be helpful for practitioners to use various traditional therapeutic approaches to support athletes, including cognitive restructuring (Garfield & Bergin, 1978), stress management (Jaremko & Meichenbaum, 2013), and emotional expression (Yalom, 1980). Although Taylor et al.'s model suggests intervention strategies, the strategy is reactive. Researchers (Gilmore, 2008; Wylleman et al., 2004) have emphasized the need for assisting athletes with proactive interventions, because of the importance of pre-transition planning and life skills development. However, since there is no information related to the actual timing of initiation of the retirement process, there is no accurate suggestion about appropriate timing of providing proactive interventions. In general, Taylor and Ogilvie's model (Taylor & Ogilvie, 1994) tended to provide exploratory variables, which related to the

quality of athletes' post-sport adjustment process. Coakley, (2006) and Munroe et al., (1999) employed Taylor and Ogilvie's model to understand the process of athletes' retirement from sport. The findings supported the model, in terms of the importance of individual development, coping strategies, and reasons for sports career termination for the quality of athletes' adjustment to retirement.

2.2.2 THE HOLISTIC ATHLETIC CAREER MODEL

Wylleman & Lavallee (2004) introduced a developmental model based on previous studies on both transitions within sports careers and retirement from sport, and Wylleman (2019) revised the model to contain six levels: athletic, psychological, psycho-social, academic and vocational, financial, and legal levels (Wylleman, 2019b). There are two types of transitions, which are normative and non-normative. Normative transition refers to a transition that is predictable and can be anticipated (Schlossberg, 1981), related to biological, social, and emotional changes through aging (Baltes, 1987), and influenced by social context (Wapner & Craig-Bray, 1992). The developmental model of Wylleman & Lavallee (2004) takes a developmental and holistic perspective on athletes' normative transitions during their athletic careers from the initiation to discontinuation stages. Athletic level deals with factors related to athletes' transitions based on changes in their competitive levels, and the changes are determined by organizational characteristics. The athletic level has four different stages that can occur during sports career transitions, which are Bloom (1985)'s three stages of talent development (i.e., initiation, development, and mastery or perfection) and the discontinuation stage. The initiation stage indicates the period when young athletes enter their sport, the developmental stage refers to the time when athletes dedicate time and effort to their sport to develop their sports skills, the mastery stage is the period when athletes reach their highest performance, and the discontinuation stage refers to transition out of competitive sport. The psychological level in the model is based on conceptual frameworks of individuals' lifespan development (e.g., Erikson, 1950; Havighurst, 1973; Piaget, 1971), and contains major developmental

stages (i.e., childhood, adolescence, and adulthood). Childhood indicates young athletes' readiness for structured sports competition, including motivational viewpoints (e.g., degree of interest in and attention to participating in the sport) and cognitive viewpoints (e.g., capacity for understanding rules, responsibilities, relationships, and causes of performance outcomes). Adolescence and adulthood refer to the period when athletes face various life skill developments, such as social skills and self-identity. In this period, athletes build new or mature relationships with peers and become emotionally independent from their parents. It is argued that athletes' self-identity development in the adolescent stage is crucial, and their identities can be both positively and negatively influenced depending on the degree of their commitment to their sport and the development of other life skills. The psychosocial level presents athletes' development of social networks, including interaction with their surroundings and changes in the roles of significant others through the athletic career. The model shows that parents, siblings, peers, and coaches are the most influential others for young athletes, and in the latter stages of an athletic career (adulthood), partners, families, and coaches play important roles in athletes' social networks. The academic and vocational level explains athletes' educational and occupational development during participation in competitive sport and covers primary education, secondary education, higher education, and vocational training and professional occupation. In the early stages, athletes are mostly in the initiation stage. Later, when athletes are in primary education and in the early adolescent stages, they experience transition into secondary education. The transition possibly accompanies changes in their sports teams, and social networks, so athletes need to deal with these changes. Several studies reveal that athletes overlook their education during their athletic careers, resulting in absence from classes and causing delays in academic skills development (e.g., De Knop et al., 1999; Stronach & Adair, 2010). Finally, those athletes coming out of a sports career, whether it is the end of a collegiate sports career or a career at an international level, must step into the vocational level and need to have vocational

training or learn a professional occupation. Alfermann (2000) suggested that academic progress is related to different education policies in different nations, and athletes' vocational opportunities are associated with sports structure, but eventually, most athletes need to find post-sport careers. As the developmental model provides a conceptual perspective on athletes' whole sports career, Bruner et al. (2008) tried to understand a sports career transition by using two layers (i.e., athletic level and psycho-social level) from the developmental model, and suggested that the model provided a fruitful conceptual framework to understand young athletes' sports career transition experiences.

2.3 ATHLETIC CAREER SUPPORT IN OLYMPIC COMMITTEES

Career support (CS) is often structured into programs, organized by a sports organization mainly intended for athletes. CS is also called Career Assistance. Wylleman, Theeboom et al. (2004) defined Career Assistance Programs as integrated and comprehensive combinations of workshops, seminars, educational modules, individual counseling and/or a referral network providing individualized and/or group-oriented multidisciplinary support services to athletes regarding their athletic participation, developmental and lifestyle issues, and educational and vocational development (p. 511). One of the key points is that the philosophies of CS programs are of two main types. Some CS programs aim to provide financial aid to athletes and ready solutions for their problems, that is taking a curative approach once the problems have appeared. Other CS programs aim to provide athletes with resources and information, thereby taking a preventive approach before problems appear. Both approaches are designed to support athletes. However, while the latter emphasizes athletes' autonomy and increases their readiness to cope with future situations, the former might generate dependence. One of the pioneering programs that has lasted until today, and which has been the most internationally influential, is the Athlete Career Education (ACE) program. This was set up in 1990 by the Victorian Institute of Sport in Melbourne (Australia). In 1995, the ACE became a national standard when it was adopted by the Australian Institute of Sport (AIS)

and all other Australian Institutes and Academies of Sport (Anderson, 1993; Chambers et al., 2013). The ACE was 'carbon copied' in New Zealand (Ryan & Thorpe, 2013), and its influence also spread to places and cultures as far afield as the United Kingdom (Park et al., 2013b) and the Republic of Korea (Kang & Kim, 2013). Another pioneering program reported in the scientific literature was the Ladies Professional Golf Association's (LPGA) Preparing for Future Careers Program (Petitpas & Elliot, 1987). Following these early examples, different organizations worldwide, from different perspectives and for different athletes, have developed and implemented programs. Stambulova and Ryba published a book titled *Athletes' Careers Across Cultures* (Stambulova & Ryba, 2013). The book reviews career transition research and career programs in 19 countries (Australia, Belgium, Brazil, Canada, China, Denmark, France, Germany, Greece, Ireland, Japan, Mexico, New Zealand, Russia, Slovenia, Spain, Sweden, the UK and the USA). The book identifies three dominant (i.e., North American, Australian and Western European) and two emerging (i.e., Asian and Latin American) discourses in career research and support programs for athletes. The authors conclude that a career support program is more contextualized and culturally informed than career research because practitioners are 'closer' than researchers to the athletes' everyday life and lived culture. The importance of specificities and evidence-based local practices is clear. However, the argument is expanded that career support programs are mainly based on athletes' needs, which is good, but lack the support of scientific evidence derived from their evaluation. One of the best-known programs for Olympic athletes worldwide is the Athlete Career Program (ACP) organized by the International Olympic Committee since 2006 (IOC, n.d.). This is delivered across three core areas: education, life skills, and employment. The ACP is offered to Olympic and Paralympic athletes in more than 30 countries (n = 22,000) through their National Olympic Committees, and builds on previous or parallel programs offered by National Olympic Committees. Chronologically, from the mid-1990s the Australian Sport Commission offered the Olympic Job Opportunity

Program (OJOP), which gave athletes vocational training, provided links with organizations and companies, and sought to secure permanent employment for athletes (Chambers et al., 2013). USA Track & Field offers a similar program called OJOP through the United States Olympic Committee (USOC) (Petitpas et al., 2013), and since 2004, the Japanese Olympic Committee (JOC) has run the Second Career Project (SCP) that offers seminars to train elite and former elite athletes (Toyoda, 2013). The Canadian government organizes the 'Canadian Sport for Life' movement (CS4L) for the improvement of sport and physical activity in Canada (Schinke et al., 2013). In association with Sport Canada, they created the Long-Term Athlete Development Program (LTAD). Schinke et al. (2013) highlighted that this multi-stage program, with the long-term aim of promoting an active lifestyle among children and young adults, includes specific parts to assist athletes with the transition out of sport. Part of the LTAD's focus is on keeping retired athletes actively involved in sport through supporting roles (e.g., coaching, sports administration, officiating). It also offers life services to help athletes to develop skills through peer mentorship, academic and career counselling, instruction on vocational skills, tutoring and public speaking courses. In Australia, the ACE program was rebranded in 2015 within the Personal Excellence Program (PEP) as part of a national strategy driven by the Australian Institute of Sport (AIS) (Chambers et al., 2013). This new program built on the original ACE Program and strengthened athlete career and development support in Australia. It was adopted in every state with the aim of enhancing the ability of athletes to make informed decisions that impact performance in sport and life. Torregrossa & Regüela (2020) mentioned the future challenges for career support programs, and one of them was complementing the needs-based nature of career support programs with scientific evidence. They revealed that career programs mainly started based on the needs of athletes, significant others (e.g., coaches, families) and the context. There was a concern that these practices should be scientifically evaluated, and that the absence of scientific evaluation was a major shortcoming of the first career

support programs (e.g., Chroni et al., 2013). Stambulova & Ryba (2013) claimed that research into career support programs was scarce, although there had been relevant examples in the USA, the UK and Spain (Bobridge et al., 2003; Mateos et al., 2010; Shiina et al., 2003). The next step should be to increase the scientific evaluation of programs and use the results to complement needs-based initiatives with scientific evidence. Holt et al. (2018) explored factors associated with the use of research evidence in sports organizations following the Promotion Action on Research Implementation in Health Services (PARIHS). According to the PARIHS framework, the implementation of successful research is viewed as a function of the relationship between evidence, context and facilitation within the organization. Moreover, to quickly enrich needs-based career support programs with research evidence, it is important: (a) to emphasize the applied relevance of the research evaluating career support programs, (b) to promote a context in which evidence is understood and valued by career support providers, and (c) to provide organizational support and facilitation mechanisms to incorporate research results into the everyday practices of the programs. To date, scientific evaluation of career support in Japan is scarce, even though there have been several research studies on athletic retirement among Japanese elite athletes.

2.3.1 CAREER SUPPORT IN JAPAN

Research on athletic retirement among elite athletes in Japan

Career research in Japan has presented three major themes: Athletic identity studies, Athletic retirement, and Career support programs in Japan. Nakagomi (1993) pointed out that the formation of athlete identity at the university stage tends to be completed earlier than any other stage of self-identity formation. During the character formation of an athlete in adolescence, "the feeling of identity as an athlete" might both contribute to and hinder his or her role experimentation. Since the athlete's identity is fixed at an early stage, it could hinder the formation of a mature identity in their lives.

Nakagomi (1993) insists that high correlations between athletes' competitive lives and their self-identity warn of athletic identity foreclosure, which he believes is a particularly active process of psychological development at university level. Toyoda & Nakagomi (1996) conducted personal interviews with several former elite athletes and through the interviews, classified them into five types from the viewpoint of their identity restructuring after retirement. The research showed that all types of retired athletes faced some degree of difficulty in the transition to their retirement. Toyoda (1999) also investigated the process of identity reconfiguration in retired Olympic athletes. Semi structured interviews were conducted with two Japanese retired Olympic athletes who had participated in the 1964 Tokyo Olympic Games and experienced their athletic retirement far before the time of the study. The results indicated that the process of identity reconfiguration of retired athletes had the following four stages: 1) confronting the difficulties of athletic retirement, 2) reconsidering their lives as athletes and choosing their course toward athletic retirement, 3) transition from athletic activities, and 4) active commitment to their new workplace. Toyoda (1999, 2007) and Toyoda & Nakagomi (1996, 2000) also pointed out that athletic retirement is a process during which it is possible to expect development and growth rather than just difficulties. They insisted that athletes should not only rely on external support but should also make their own efforts towards creating their careers out of sport. Athletes must resolve complicated and multidimensional problems when facing retirement. Toyoda (2008) carried out a study that focused on the developmental tasks confronted by Japanese retired Olympic athletes and their coping behaviors. He conducted semi-structured interviews with five Japanese retired Olympic athletes who retired more than 20 years prior to the data collection. All of them were female handball players who had participated in the 1976 Montréal Olympic Games and experienced career transition in their 20s. The first finding was related to the following set of three developmental tasks: identity change, lifestyle change, and cultivation of new relationships. The second

major finding of this study was psychological suffering. Within this category the participants talked about lingering attachment to athletics, lack of planning for the future, making comparisons with others in terms of career achievements, lack of a sense of reality, vanity, guilt, anxiety, solitude, inconsistency, mourning and identity confusion. Nakagomi (2012) reported on the psychological support he provided to a world-class athlete in over 83 sessions within a 10-year period. The psychotherapy sessions could be divided qualitatively into 4 periods: coping with retirement, stagnation and depression, self-discovery, and returning to the athletic field as a coach. Correspondingly, the internal transformation of the athlete-client in the retirement adjustment process evolved from retirement ceremonies and mourning to self-discovery, internal psychological development, and ensuring self-consistency by connecting the athlete's past, present, and future.

Development of career support in Japan

The Japan Sports Agency launched a Sports Career Support Consortium in January 2017 prior to the 2020 Tokyo Olympic Games to unify all Japanese sports organizations (e.g., Japanese Olympic Committee and Japan Sport Council) which individually had developed career support programs for elite athletes, including Olympic athletes. The overall aim was to design a career support program with consistency and continuity for present, retiring, and retired elite athletes. At present, the Japan Olympic Committee (JOC) career support program, called "JOC Career Academy" (JCA) is for present, retiring and retired Olympic athletes, and the Japan Sport Council (JSC) career support program, called "JSC Dual Career Education Program", was available to present and retiring athletes until 2019. When designing a career support program for Olympic athletes at their retirement, it is important to consider athletes' needs. The JOC started developing a career program for Olympic athletes in 2002, and then launched the JCA to coincide with the launch of the National Training Center in 2008. To develop the program, JSC conducted a survey including the causes for retirement of Olympic athletes (Japan

Sport Council, 2014). This study surveyed 82 retired Olympic athletes, including both summer and winter athletes, and found that the causes of retirement differed by gender. It was argued that career support needs to consider methods for each gender. However, because the survey was conducted by approaching the sports organization, it was difficult to survey retired Olympic athletes who had already left their sports organizations, and the number of respondents was limited to 82 in total. Hong & Coffee (2018) conducted a survey about the contents of each career program across 19 countries, including Japan, and found that: the JOC is responsible for delivering the JCA program; JCA ran its own program different from the IOC's ACP; JCA offers tailored support services depending on athletes' needs; and JCA does not have specific practitioners who have knowledge of athletic career transition for the program. The JCA offers its own program with tailored support services despite the absence of specific practitioners. Details of what kind of specific practitioners are absent and what kind of tailored support services are available at JCA are not clear. Toyoda (2013) suggested that investigating and verifying the effects of the existing career support program that has been established in Japan would lead to even more useful career support.

2.4 PROBLEMS DEFINED

The research area of athletic retirement has been developing for the past three decades. However, there are still unsolved issues regarding athletic retirement. First, research evaluating career support is scarce although some examples relevant to Australia, USA, UK, and Spain have been provided. The majority of studies have been conducted with Western samples, and there is very little evidence related to cultural influences and sport contexts on athletes' career transitions and athletic retirement. Retired elite athletes tend to have difficulty in seeking help at retirement even when they have psychological difficulties. It is suggested that Japanese retired elite athletes with psychological difficulties should seek professional support; however, there is little research on what

kind of psychological support the retired athletes can obtain in the existing career support program or what kind of psychological difficulties the athletes have.

2.5 SUMMARY OF LITERATURE REVIEW AND STATEMENT OF THE PROBLEM

This chapter has described related work on athletic retirement and discussed unsolved issues through existing research. First, early research on retirement from elite sports has been presented to understand the phenomenon of athletes' retirement and career transitions with several theories and models have been presented. Second, conceptual models of career transition and retirement in sport, which were developed to explain the athlete career transition process at the retirement, have been explained. These are the conceptual model of adaptation to retirement and the holistic athletic career model. Then, research on existing intervention programs for supporting Olympic athletes has been described and the development of Japanese career support has been explained. It has been revealed that research evaluating career support is scarce although some examples relevant to Australia, USA, UK, and Spain have been provided. Most studies have been conducted with Western samples, and there is very little evidence related to cultural influences and sports contexts on athletes' career transitions and athletic retirement. Retired elite athletes tend to have difficulty in seeking help at the retirement even when they have psychological difficulties. It is suggested that Japanese retired elite athletes with psychological difficulties should seek professional support; however, there is little research on what kind of psychological support retired athletes can obtain in the existing career support program or what kind of psychological difficulties athletes have. As Lavalley et al. (2014) suggested, the conceptual model can assist organizations in developing effective support systems once specific retirement difficulties are demonstrated, and appropriate psychological support can be recommended. At the present time, however, there has been little research conducted on the needs of retired athletes and the system requirements to help them make an optimal transition. It can be

assumed that it is especially difficult for those who are already retired to obtain help since they are out of the sports organizations' support frameworks. Therefore, this thesis investigates both the existing career support in Japan and the needs of retired Japanese elite athletes in their retirement using the conceptual model. Through the investigation, the thesis aims to design and verify the required support for retired athletes to fill the gaps in the existing support.

3 INVESTIGATION INTO EXISTING CAREER SUPPORT PROGRAM FOR OLYMPIC ATHLETES IN JAPAN

3.1 PROBLEM DEFINITION

At present, the Japan Olympic Committee (JOC) career support program, called the "JOC Career Academy" (JCA) is available to present, retiring and retired Olympic athletes. JCA was launched at the National Training Center in 2008. A survey conducted by Hong & Coffee (2018) found that JCA offers its own program of tailored support services despite the absence of specific practitioners. Details of what kind of specific practitioners are lacking and what kind of tailored support services are available at JCA are not clear. However, previous studies on the retirement of Japanese elite athletes by Toyoda and Nakagomi (1996) revealed that Japanese athletes faced some psychological difficulties in their retirement (Toyoda & Nakagomi, 1996). Therefore, the problem defined in this chapter are: 1) What kind of "own program" (Hong & Coffee, 2018) does JCA deliver? 2) What kind of support service contents are provided for psychological difficulties? 3) What kind of needs do Japanese Olympic athletes have for support? 4) What kind of needs do Japanese career support services have?

3.2 METHOD

To investigate the service content of JCA in relation to athletes' career transition needs, a semi-structured interview was conducted with the JCA director who had started the program and managed it since its inception. Through the one-to-one interview method, the interview was conducted in June 2016 for an approximately 90 minutes and focused on the following questions: Why and how was JCA started? What service contents are included in JCA? Are there differences between Summer/Winter and Male/Female

Olympic athletes using JCA? Are there any challenges for the JCA program in tailoring the contents to the needs of athletes?

3.2.1 INFORMED CONSENT

The study purpose was explained, and consent was obtained to record data with an IC recorder. To respect human rights and ensure security, sufficient ethical consideration was given, such as guaranteeing the right of the subject to choose to stop participating in the study at any point. In this study, since the subject had only one job role in Japan, it was possible to identify the individual. The subject signed a letter of consent to participate in the study based on the understanding of the study purpose.

3.2.2 ANALYSIS

All data obtained from the interviews were transcribed into typed text. The text data was analyzed by the following four steps with reference to Sato's qualitative analysis method (Sato, 2008).

Creating document segments

From the text data, three themes were extracted as semantic units: Past and current situations of JCA; Athletes using JCA; and Current challenges of JCA. These document segments were the source of the analysis.

Open coding

Each document segment collected in each theme was labeled depending on the kind of semantic content included and was summarized.

Focused coding

Focusing on the similarities and differences of labels, each label with similar contents was coded. Each code was labeled with more semantic units than in open coding, and subcategories were generated.

Conceptual categorization

The subcategories generated by the focused coding were collected and integrated through conceptual categorization into higher-level abstract categories.

3.2.3 CREDIBILITY AND CERTAINTY

Based on the methodology of qualitative research (Miles & Huberman, 1994), the analysis procedure from the viewpoint of credibility (reality of the data) and certainty (whether the data or procedures could be relied on) was verified (Uchigaito, et al., 2006). Interviewing the subject, who was involved in the establishment of the JCA and its management as program director, enabled detailed descriptions and ensured credibility. In addition, co-researchers confirmed the analysis process from the perspective of consistency, and when different interpretations arose, a discussion was made until a consensus was reached, thereby ensuring certainty. The principal analyst was the first author of the study, who was a sports psychology expert with over 15 years of research and practice focusing on athletic careers. In addition, since the co-researchers had expertise in sport psychology and qualitative research methods, the analysis was possible with a view from specialized fields complementing the study theme. By conducting semi-structured interviews using an interview guide, it was possible to focus on the study theme while providing flexibility. In addition, the researchers asked questions in a non-instructive manner, so as not to prompt or direct the subject's remarks, and analyzed the subject's own words as transcribed. In the qualitative data analysis conducted in this study, the entire context of the original document was considered many times rather than in one direction of data reduction, and the analysis was conducted with an emphasis on bidirectional flow.

3.3 RESULTS

Conceptual categories were generated for each of the three themes: 1) Past and current situations of JCA; 2) Athletes using JCA; and 3) Current challenges of JCA.

3.3.1 PAST AND CURRENT SITUATIONS OF JCA (TABLE 3.1)

As a result of summarizing the document segments related to the "Past and current situations of JCA", 26 labels were obtained. Then coding for each label with similar contents resulted in four conceptual categories by focusing on the similarities and differences of labels. In the process of coding the 29 labels, one label was identified as the only one belonging to a certain category and was coded as an independent conceptual category.

1) Starting JCA

This category was created to describe the beginning of career support (JCA) at JOC. One label was assigned regarding the increasing number of companies withdrawing from sports due to the recession. Only one label was created on the reasons why Japan had to start career support as the subcategory "Why to start". The subcategory "How to start" was obtained by summarizing the seven labels regarding the start of JCA. Since only one label was obtained about what was difficult from the beginning, it was classified as "Difficulty at the start". "Starting JCA" was composed of these 9 subcategories.

2) Situation of JCA

This category was created to describe the current situation of JCA. The subcategory "Seminars" was obtained from the three labels on seminar content. The subcategory "Counseling" was obtained from the three labels on the methods and quality of consultations conducted. The subcategory, "Marketing" was obtained from the two labels on conducting the study and involving people. The subcategory "Collaboration with JOC and National Federations (NFs)" was derived from the five labels on coordinating with other organizations to determine JCA action plans. "Situation of JCA" consisted of these four subcategories.

3) Asu-Navi (occupational support)

This category was created to explain Asu-Navi's activities as occupational support. The subcategory "Occupational Support" consisted of two labels describing what kind of corporate association helped with the support and what kind of athletes used the support were in the category. The subcategory "Staff for Asu-Navi" was derived from labels on how to obtain the human resources needed to maintain the support. "Asu-Navi" consisted of these two subcategories.

Table 3.1 Past and current situations of JCA

Conceptual category	Subcategory	Labels from Open coding
Starting JCA	Why start	Japanese companies cannot support athletes financially
	How to start	Holding seminars for athletes about career options
		Survey of NFs about athletic career programs
		Trying to start projects collaborating with other organizations
		Starting occupational support at their retirement
		Copying the program design from Professional Soccer Association career project
		Contacting retiring athletes
	Publishing a flyer explaining what it is	
	Difficulty at the start	No professional individuals in athletic retirement among the program
Situation of JCA	Seminars	Occasional speeches by retired athletes
		Seminar about communication skills
		Seminars about 100 times yearly
	Counseling	Counseling by non-professionals
		Lack of knowledge of counseling
		Unorganized counseling system
	Marketing	Involving retiring athletes
		Trying to do survey for science-based career assistance
	Collaboration with JOC and NFs	Establishing a project to support both athletes and coaches
		Group meetings with college professors and NFs for problem solving
		Establishing a project because of the shortage in the budget from JOC
		Trying to establish a project to establish a career advisory system within NFs
Difficulties in communications with JOC career staff		
Asu-Navi (Occupational support)	Occupational support	Occupational support collaboration with Japan association of corporate executives
		Occupational support especially for winter sports athletes
	Staff for Asu-Navi	Non-professional staff for starting the support
		Continuation of Asu-Navi
		Contract renewal
		Sponsoring company employees to become Asu-Navi staff
Asu-Navi Next		Occupational support for retired athletes

4) Asu-Navi Next

This category was created to describe Asu-Navi Next's activities. As only one label was obtained for the support of retired athletes, it was independently classified as the conceptual category of "Asu-Navi Next".

3.3.2 ATHLETES USING JCA (TABLE 3.2)

A total of 29 labels were obtained in this category. Focusing on the similarities and differences of labels, four conceptual categories were obtained.

1) Tendencies in reasons for accessing support

This category was created to describe who came forward for support and what they asked for. The subcategories of "Summer athletes", "Winter athletes", "Male athletes" and "Female athletes" were obtained.

2) Financial situation of athletes

This category was created to describe the characteristics of differences in the financial situations of summer and winter sports. The subcategories of "Summer athletes" and "Winter athletes" were grouped under three labels each. "Financial situation of athletes" consisted of two subcategories.

Table 3.2 Athletes using JCA

Conceptual category	Subcategory	Labels from Open coding
Tendencies in reasons for accessing support	Summer athletes	Not many seek support since they come to National Training Center for training camps
		Not many since it is difficult for them to get sponsors for occupational support
	Winter athletes	Seeking assistance with obtaining financial support
		Coming to get support since they come to National Training Center in the off season
	Male athletes	They do not come until they really have problems
		They come with female athletes to get sponsors
	Female athletes	Want to talk about performance and daily problems
Want to talk about relating to sponsors Career planning after retirement		
Financial situations of athletes	Summer athletes	Team sports have companies' support
		Individual sports have difficulties in obtaining sponsorship
		Sports disciplines which do not have sponsorship go to Asu-Navi
	Winter athletes	Getting sponsors to continue sports
		When company stops sponsorship problems occur Financial problems influence reasons to retire
Characteristics of athletes accessing support		Willing to use the support
		Have a career plan
		Need information and networking
Career choices after retirement	Inflexible choices	Gaps between the athletes' desires and intentions of their clubs
		Some do not want to continue staying in their clubs to work as a second career
		Cultural tendencies not to be able to say what kind of careers athletes want to pursue
	Summer athletes' career choices	Ball sports players tend to become coaches at their clubs
		Depending on sports discipline, no possibility to choose coaching career
		Tendencies to believe it is the best to stay at their clubs to work
	Winter athletes' career choices	Depending on sports discipline, no possibility to choose coaching career
		Tendencies to choose to start their own business
	Male athletes' career choices	Strong bond with their sports disciplines
	Female athletes' career choices	More and more free choices
	No strong bond with their sports, so diverse choices of career	

3) Characteristics of athletes accessing support

This category was generated to describe the characteristics of the athletes who voluntarily came forward for support. Three labels relating to the fact that athletes who came on their own initiative were prepared in advance were consolidated. Since there were no other subcategories, they were independently classified into the conceptual category of "Characteristics of athletes accessing support".

4) Career choices after retirement

This category was created to describe the career choices of athletes. The subcategory "Inflexible Choices" was obtained from the three labels on the gaps between athletes' desires and their clubs' intentions. The labels on the tendencies of career choices of athletes depending on Summer/Winter and Male/ Female differences were obtained as subcategories. "Career choices after retirement" consisted of five subcategories.

3.3.3 CURRENT CHALLENGES OF JCA (TABLE 3.3)

By focusing on the meaning and content of each, 23 labels were obtained in this category. Focusing on the similarities and differences of labels, seven conceptual categories were obtained.

1) Operational difficulties in JOC

This category was created to explain difficulties within the organization, JOC.

Table 3.3 Current challenges of JCA

Conceptual category	Subcategory	Labels from Open coding
Operational difficulties in JOC		Limitations of JOC executives' understanding of careers
		Issues related to cooperation with Japan Sports Council (JSC)
		Issues related to the JOC Athlete Committee's activity policy
Difficulties in JCA	No systematic support	Seminar schedule that cannot be systematized
		Asu-Navi working, but other service contents (counseling and seminars) not organized
		Systematic seminar and counseling contents contributing to development of Asu-Navi
	Lack of specialized personnel	No professionals to design or run the JCA counseling system
		Free staff from JOC sponsoring companies
	Needs identified in athletes	Athletes need to know what JCA is
		Retired athletes are not coming to National Training Center
	No data on retired athletes	
Difficulties in Asu-Navi	Changes in the number of participating companies	Faced with the reality of difficult employment on the corporate side
		Increasing participation in Asu-Navi since Tokyo 2020 was decided
	Asu-Navi benefit from sponsoring companies	Good status to become a staff member in JCA
		Providing facts related to national projects to companies
	Staff from sponsoring companies	Free human resources, but not professionals in athletes' careers
Difficulties in NFs		Not promoting well how important JCA is
Lack of use of past evidence	Difficulties working with sport psychology staff in JISS	Gap between sport psychologists and JCA staff
	Difficulties copying EIS program system	Not able to place the career professionals in each NF
Difficulties in management		Management of Asu-Navi system
		Management of JCA
Ideal career support		Assignment of career professionals within NFs
		Human educational program for athletes to transfer their acquired skills from sports to society

2) Difficulties in JCA

This category was created to explain the difficulties in operating JCA. The subcategory "No systematic support" was obtained by grouping three labels related to counseling and seminar service contents. The subcategory "Lack of specialized personnel" was also derived from two labels on lack of professionals. JCA was not clear in deciding who their services were for or for what period. Because of this ambiguity, the three labels were obtained in the subcategory of "Needs identified in athletes". These three subcategories were coded as "Difficulties in JCA".

3) Difficulties in Asu-Navi

This category was created to describe the difficulties in the corporate collaboration that was essential for running Asu-Navi. The subcategory "Changes in the number of participating companies" was obtained from the two labels on securing Asu-Navi participants among both athletes and companies. The two labels for companies using Asu-Navi resulted in a subcategory, "Asu-Navi benefit from sponsoring companies". Only one label was obtained regarding the fact that the staff were from sponsoring companies to reduce labor costs. It was independently classified into the subcategory "Staff from sponsoring companies". "Difficulties in Asu-Navi" consisted of these three subcategories.

4) Difficulties in NFs

This category was created to explain the NFs' understanding of career support. Since only one label was obtained regarding the NFs' lack of understanding of ongoing career support, it was independently considered to be the conceptual category "Difficulties in NFs".

5) Lack of use of past evidence

This category was created to explain not being able to draw on successful cases in overseas career support at the beginning of JCA. From the label on the gap between overseas organizations with a counseling system by psychological experts and the current situation of JCA, two subcategories were obtained: "Difficulties working with sport psychology staff in the Japan Institute of Sports Sciences (JISS)" and "Difficulties copying other elite program systems, such as those of the English Institute of Sport (EIS)". From these, the code "Lack of using past evidence" was used.

6) Difficulties in management

This category was created to describe the difficulties in managing JCA as a director. The subcategory "Difficulties in management" was obtained by combining the two labels related to the direction of Asu-Navi and the management duties in JCA. Since there was no other subcategory, it was independently classified as a conceptual category of "Difficulties in management".

7) Ideal career support

This category was created to describe optimal career support based on the subject's experience as a director. The two labels on the assignment of career professionals within NFs and the purpose of career support were consolidated into a conceptual category called "Ideal career support".

3.4 DISCUSSION

The results of the analysis of "Past and current situations of JCA" reveal how sports career programs in Japan developed from the 1990s, as several companies withdrew from sports support due to the recession. The availability of Asu-Navi and Asu-Navi Next for athletes' employment has important implications for occupational and financial support. "Athletes using JCA" also generated conceptual categories of occupational and financial

issues, similar to the results on "Past and current situations of JCA". This suggests the importance of occupational and financial support. The results also showed there were differences between the Summer/Winter and Male/Female athletes regarding the tendencies to visit and access JCA services, their financial situations, and their career choices after retirement. It is necessary to provide multifaceted support, not only depending on the causes of career termination, but also on the situations each Olympic athlete faces. "JCA current challenges" reveals two issues, "Issues with JCA's shortage of human resources" and "Issues with JCA's systematic support". While JCA started with a shortage of human resources, results suggested that securing adequate human resources was an issue. Wylleman (2019a) pointed out that support services should be provided in an interdisciplinary way, including psychologists, medical doctors, physiotherapists, strength and condition experts, nutritionists, academic and vocational support professionals, and financial experts based on the holistic athletic career (HAC) model. Since at JCA there appears to be a shortage of staff competency to meet the needs of athletes, "counseling by non-professionals" was undertaken. Therefore, study on appropriate human resources is an issue for the future. Similarly, it is questionable what kind of evaluation system was used to secure human resources in the areas of occupational and financial support. Asu-Navi has been beneficial to both the JOC and the corporate sponsors. JOC was able to undertake this project at a lower cost as some of the human resources were provided by the corporate sponsors. The sponsors were also proud to help athletes as a national project. However, the ability and aptitude standards of the human resources necessary to carry out the support services were not specifically defined, and in that sense, as described in the HAC model, study needs to be done to secure "experts" for the future. Their results show that the service contents of seminars and counseling sessions were not systematized. In this situation, it was difficult for athletes to know what kinds of support JCA provided. In fact, from the results of "Athletes using JCA", it is clear that only athletes who already had a clear awareness of issues with their

career, and those who wanted to gain sponsors or who had financial problems, were accessing support. From these results, for the unification of the programs, it is necessary to consider career support that meets the needs of athletes using various career transition models as a framework. In particular, various prior studies have indicated that career support should be tailored to differences in the reasons for retirement and psychological problems peculiar to retirement. In a unified program, it was suggested that Olympic athletes need to have opportunities to understand how to use their career support effectively. In conclusion, the relationships between all 15 conceptual categories generated by the qualitative analysis method were organized focusing on three items related to career support: "Situation of JCA", "Difficulties in JCA", and "Athletes' situations" (Figure 3.1). JCA started with the need for occupational support, and so Asu-Navi and Asu-Navi Next were started. The services of Asu-Navi and Asu-Navi Next were beneficial to both JOC and the corporate sponsors. Since part of the human resources was provided by the corporate sponsors, JOC was able to conduct these projects a lower cost. However, JCA had difficulties with other sports organizations. Due to the lack of athletic career professionals in JCA, the support scheme was not systematized, and there was no multifaceted support such as shown in the HAC model. It has become clear that this situation and current difficulties are affecting career support for athletes. The results showed that while sports career programs in Japan (JCA) provide occupational and financial support, support for athletic, psychological, psychosocial, academic and legal aspects was not found. Further study needs to be done to know more specifically what kind of support is needed and what kind of human resources are needed for career support programs for Olympic athletes in Japan.

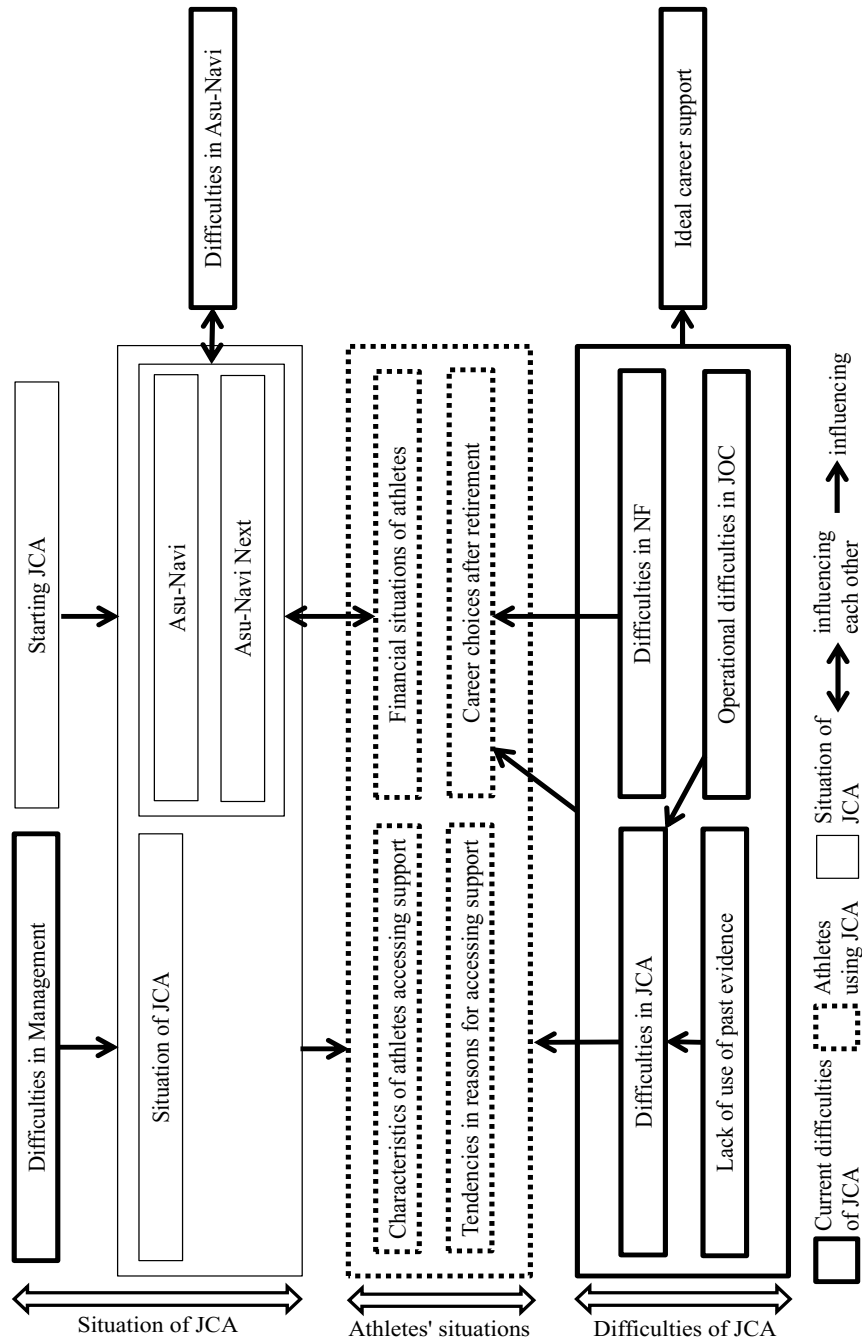


Figure 3.1 Situation of JCA, difficulties in JCA, and athletes' situations

3.4.1 LIMITATIONS AND FUTURE DIRECTIONS

In this chapter, an interview with the director of JCA is analyzed to reveal the situation of JCA, athletes' situations, and difficulties in JCA, including how it started and how it has been managed since its inception. The director was interviewed as the only person who started and developed the JCA from the beginning. However, in the analysis, consideration should be taken of the possibility of his subjectivity. In addition, this interview was conducted in 2016 which was before the pandemic. Therefore, it must be pointed out that the athletes' needs of career support and corporate conditions for Olympic athletes since the pandemic and after the postponement of the 2020 Tokyo Olympics might be different. Based on these limitations, continuous research will be needed on the existing support regarding whether it meets the needs of the athletes.

3.5 CHAPTER SUMMARY

This chapter has investigated the service content of the JCA in relation to athletes' career transition needs. Semi-structured interviews with the JCA director were conducted and analyzed, and a total of 15 conceptual categories were generated through the analysis. Four categories were in the results of "Situation of JCA", 4 categories were in the results of "Athletes using JCA", and 7 categories were in the results of "Current challenges of JCA". It was revealed that: 1) JCA provided support for both current and retired Olympic athletes; 2) Other support such as psychological support was unclear due to the lack of psychological professionals in JCA; 3) There were difficulties in collaborating with other sports organizations; 4) There were differences in tendencies to access support from JCA among athletes, for example, on their financial situations and career choices; 5) JCA's needs were the following: Need of budget to hire psychology professionals for the support, need of a counseling system, need of effective promotion of career support within JOC and NFs, and need of career professionals in NFs.

4 ANALYSIS OF THE SUPPORT NEEDS OF ELITE ATHLETES

AFTER ATHLETIC RETIREMENT

4.1 THE AIM OF THIS CHAPTER

In the previous chapter, it was found that the existing career support in Japan provided occupational support for both current and retired Olympic athletes, but other support such as psychological support, was unclear due to the lack of psychological professionals in the support service. However, previous studies on retirement of Japanese elite athletes by Toyoda & Nakagomi (1996) revealed that Japanese athletes faced some psychological difficulties at their retirement.

Therefore, the aim of this chapter is to find out what kind of needs Olympic athletes have for their career support. To understand the needs of athletes at their retirement, this chapter investigates athletes' needs on the basis of the factors of quality of adaptation to athletic retirement defined in the conceptual model of adaptation to retirement. These factors are: Causes of athletic retirement, Developmental experiences as one of the factors related in adaptation to retirement, and Available resources. First, Japanese retired Olympic athletes registered in the Olympic Association of Japan (OAJ) are analyzed to find out for what kind of reasons they retired. Second, one retired female Olympic medalist is interviewed to analyze what kind of developmental experiences affected athletic retirement and the psychological difficulties, if any, after leaving sport. Based on this analysis, lastly, retired elite female athletes are analyzed regarding what kind of stressors they had at their retirement. In each section, each problem definition is specified. In the conclusion of this chapter, the gaps between the existing career support in Japan and the needs of the athletes are presented.

4.2 CAUSES OF RETIREMENT AMONG JAPANESE OLYMPIC ATHLETES

4.2.1 PROBLEM DEFINITION

The causes of athletic retirement are considered as one of the significant predictors of the quality of adaptation to retirement. In previous studies (e.g., McKenna & Thomas, 2007; Werthner & Orlick, 1986), the voluntariness of the retirement decision was found to be one of the influential factors in athletes' quality of adaptation to athletic retirement. The Japan Sport Council (2014) conducted a survey including the causes of retirement of Olympic athletes and found that the causes of retirement differed by gender, and argued that career support needed to consider methods for each gender. However, because the survey was conducted by approaching sports organizations, it was difficult to survey retired Olympic athletes who had already left their sports organizations, and the number of respondents was limited to 82 in total. Therefore, further detailed research on the causes of retirement among Japanese Olympic athletes would be needed to find out the actual situations of athletes at their retirement. The definition of the problems are:

- 1) What are the causes of retirement among Japanese Olympic athletes?
- 2) Are there any tendencies in causes of retirement depending on gender or sports, such as Summer/Winter Olympics?

4.2.2 METHOD

Participants

From a total of 5,191 Olympic athletes (3,954 in summer and 1,237 in winter) as of October 2014, the 965 registered as members of the OAJ, were targeted. OAJ is an association established in 2003. Olympians who participated as representatives of Japan (from the first participation in the 5th Summer Olympics Stockholm games in 1912 to the

23rd Winter Olympics PyeongChang Games in 2018, including the 1980 Moscow Games representatives who were not able to participate in the Olympics) are eligible to register as "members". Prior to the 2014 Winter Olympic Games in Sochi, registration was voluntary, and the number of registrants was limited. However, since Sochi it has been changed to automatic membership for participants.

Table 4.1 Question items

1. Male/Female
2. Summer/Winter Olympics
3. Number of years required from the start of the sport to participation in the Olympics
4. Retirement age
5. Causes of athletic retirement a: Satisfied with my results b: Age c: Financial problems d: To prioritize paid work e: No longer enjoying my sport f: Injury g: Other
6. Annual Self-Pay Amount

Procedure

From October to November 2014, a questionnaire survey was conducted by postal method. In this survey, it was difficult to obtain personal contact information because the subjects were retired Olympic athletes who were out of the sports organizations. With the cooperation of the Japan Olympic Committee (JOC) and OAJ, the survey was possible by incorporating it into a part of the "2014 Survey on the Career of Olympians" of the Sasakawa Sports Foundation (SSF). In order to increase the response rate, SSF sent a

separate postcard requesting cooperation to all members after the return deadline. The questionnaire was returned to the survey organization "Survey Research Center Co., Ltd.", which SSF entrusted with the collection.

Design of the questionnaire

The question items were designed based on the conceptual model of adaptation to retirement (Lavallee et al., 2014). Regarding the causes of retirement items, the focus was on items directly resulting from an athlete's "relationship between one's sport and oneself". The causes were grouped according to: Those due to psychological reasons (a, e), those due to physical reasons (b, f), and those due to financial reasons (c, d) (Table 4.2).

Table 4.2 Items of causes of retirement

<p>Psychological Reasons</p> <ul style="list-style-type: none"> • Satisfied with my results • No longer enjoy my sport
<p>Physical Reasons</p> <ul style="list-style-type: none"> • Age • Injury
<p>Financial Reasons</p> <ul style="list-style-type: none"> • Financial Problems • To Prioritize Paid Work

"Other" was added to the items about causes of retirement, but in the analysis of the χ -square test to see the difference between male and female in the summer and winter of the psychological, physical, and financial causes of retirement, "Other" was excluded.

Regarding the annual expenses required to continue the sport, in order to make it easier for the survey subjects to understand the meaning of the question, when investigating, "How much money does it cost to continue your sport?" the term, "self-pay amount" was used. Regarding the self-pay amount, since the activity of athletes aiming to participate in the Olympics continued for multiple years, in order to have a certain degree of uniformity in the target year, the expenses borne by the individual in the year previous to participating in the Olympics targeted the total amount. Those who had participated multiple times were asked to respond regarding the last Olympics in which they participated.

Analysis

In order to clarify the difference between male and female athletes in summer and winter from the data obtained, descriptive statistics, analysis of variance, chi-square test, and residual analysis were performed. SPSS16.0J (SPSS Japan version, 2007) was used for statistical analysis.

4.2.3 RESULTS

Basic attributes of respondents

The questionnaire was distributed to all 965 registered members of the OAJ, and the number of valid responses was 473, who included the participants from the 1952 Winter Olympic Games in Oslo and the 1952 Summer Olympic Games in Helsinki, with an effective recovery rate of 49.0%. As of March 2015, the male-female ratio of OAJ members was 68.0% for males and 32.0% for females, so the 69.6% for males and 30.4% for females in this survey can be said to be similar (Figure 4.1). In addition, when the gender ratio was calculated for each of the summer and winter competitions for 472 valid responses (excluding one male who participated in both the summer and winter competitions), the number of males was more than females in both games (Figure 4.2).

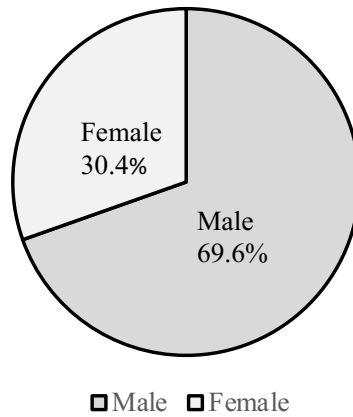


Figure 4.1 Male/Female ratio

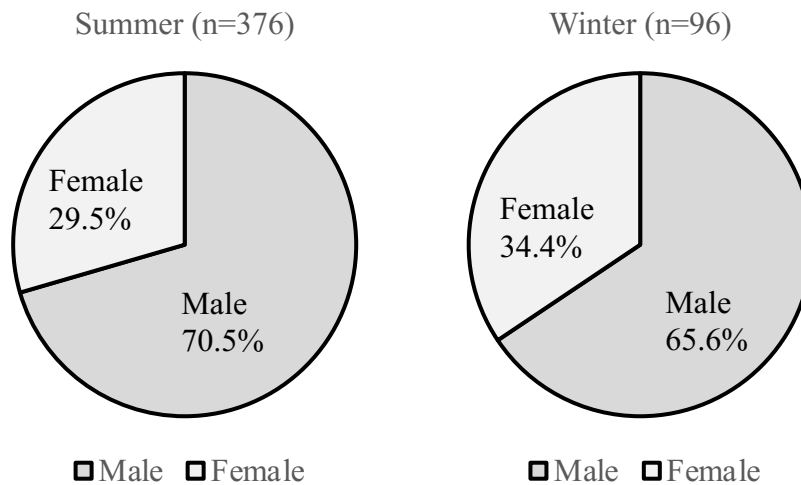


Figure 4.2 Male/Female and Summer/Winter ratio

The average age of the respondents was 62.3 years (SD = 13.5, maximum 89, minimum 26) for summer male (SMO), 51.6 years (SD = 14.9, maximum 82, minimum 21) for summer female (SFO), 53.8 years (SD = 17.8, maximum value 83, minimum value 15) for winter male (WMO), and 36.1 years (SD = 12.5, maximum value 72, minimum value 18) for winter female (WFO). The age distribution of the 473 valid responses is shown in Figure 4.3, with about half of those in their 60s and above.

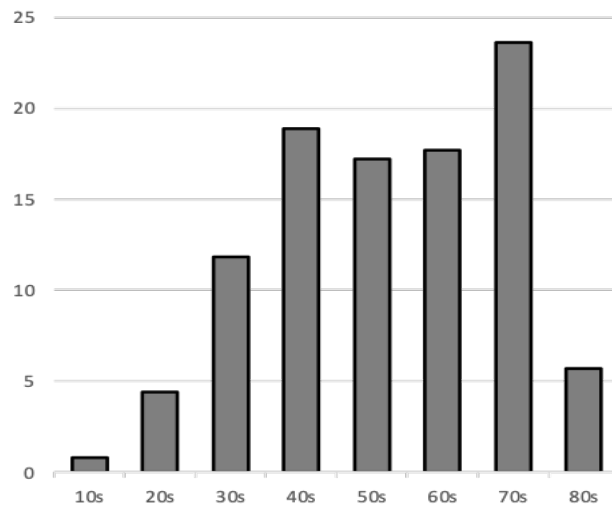


Figure 4.3 Participants' ages

Years to participating in the Olympics

Regarding the years to participating in the Olympics among the 435 valid responses (excluding one male who participated in both the summer and winter competitions from the number of valid responses), SMOs were 9.4 years (SD = 4.9, maximum value 28, minimum value 1), SFOs were 10.3 years (SD = 5.5, maximum value 26, minimum value 1) years, WMOs were 11.1 years (SD = 4.8, maximum value 22, minimum value 1), and WFOs were 11.9 years (SD = 5.4, maximum value 27, minimum value 3) (Figure 4.4).

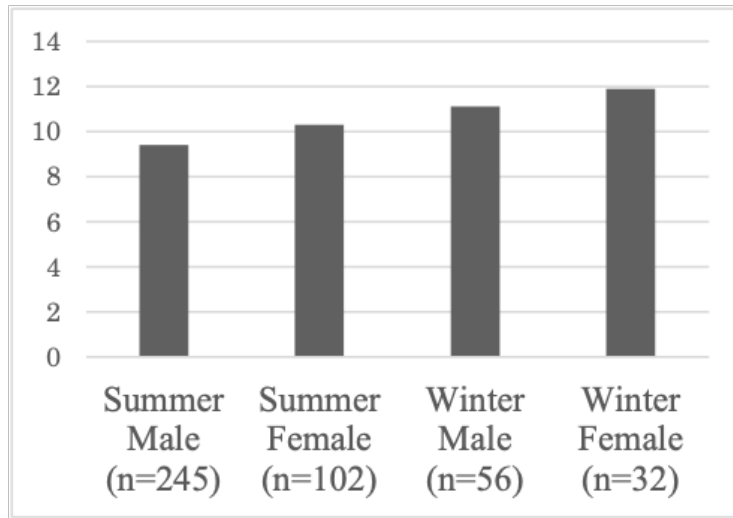


Figure 4.4 The years to participating in the Olympics

Retirement age

The retirement ages of 431 respondents with valid responses (excluding one male who participated in both the summer and winter competitions) are shown (Figure 4.5). SMOs were 31.5 years (SD = 8.3, maximum 70, minimum 18), SFOs were 26.8 years (SD = 6.0, maximum 54, minimum 18), WMOs were 29.6 years (SD = 5.3, maximum 50, minimum 22), and WFOs were at 27.4 years old (SD = 4.7, maximum value 34, minimum value 18). In both Summer and Winter, females were younger at retirement than males. In particular, SFOs were significantly younger than SMOs ($F(3.427) = 2.63$, $p < .01$) (Figure 4.5).



Figure 4.5 Retirement age

Causes of athletic retirement

Regarding the causes of athletic retirement, 431 respondents among the SMOs, SFOs, WMOs, and WFOs (excluding one male who participated in both Summer and Winter competitions) gave valid responses. As a result of cross-tabulating each and performing Pearson's chi-square test, "Satisfied with my results" ($\chi(3) = 21.05, p < .01$), "Financial problems" ($\chi(3) = 19.25, p < .01$), "To prioritize paid work" ($\chi(3) = 53.78, p < .01$), and "No longer enjoying my sport" ($\chi(3) = 27.99, P < .01$) were significantly different. In addition, Haberman's residual analysis was performed, and significant differences were found, as shown in Table 4.3. It was clarified that SFOs had a relatively large number of retirements due to psychological reasons such as "Satisfied with my results" and "No longer enjoying my sport". In contrast, WFOs tended to have more financial problems. Males tended to prioritize work more than females, and SMOs in particular showed a significant difference.

Table 4.3 Causes of retirement

Causes of retirement		SMO	SFO	WMO	WFO
Satisfied with my results	No	220 (87.3) 2.6 **	70 (68.6) -4.5 **	49 (90.7) 1.6	20 (87.0) 0.5
	Yes	32 (12.7) -2.6 **	32 (31.4) 4.5 **	5 (9.3) -1.6	3 (13.0) -0.5
Age	No	137 (54.4) -0.2	56 (54.9) 0	28 (51.9) -0.5	15 (65.2) 1
	Yes	115 (45.6) 0.2	46 (45.1) 0	26 (48.1) 0.5	8 (34.8) -1
Financial problem	No	234 (92.9) 1.1	98 (96.1) 1.9	47 (87.0) -1.3	16 (69.6) -3.9 **
	Yes	18(7.1) -1.1	4 (3.9) -1.9	7 (13.0) 1.3	7 (30.4) 3.9 **
To prioritize paid work	No	108 (42.9) -5.5 **	83 (81.4) 6.3 **	23 (42.6) -1.8	19 (82.6) 2.8 **
	Yes	144 (57.1) 5.5 **	19 (18.6) -6.3 **	31 (57.4) 1.8	4 (17.4) -2.8 **
No longer enjoying my sport	No	242 (96.0) 3.7 **	81 (79.4) -5.3 **	51 (94.4) 0.7	22 (95.7) 0.7
	Yes	10 (4.0) -3.7 **	21 (20.6) 5.3 **	3 (5.6) -0.7	1 (4.3) -0.7
Injury	No	213 (84.5) -1.1	91 (89.2) 1	49 (90.7) 1.1	18 (78.3) -1.1
	Yes	39 (15.5) 1.1	11 (10.8) -1	5 (9.3) -1.1	5 (21.7) 1.1
					** : p<.01

Self-pay amount for annual expenses

Figure 4.6 shows the average of 325 respondents (excluding one male who participated in both Summer and Winter competitions) regarding the self-pay amount of annual expenses for continuing their sports. Regarding self-pay amount for females, the SFOs was 2.507 million yen (SD = 3.711 million, maximum value 15 million, minimum value 0), and the WFOs was 4.609 million yen (SD = 6.415 million, maximum value 30 million, minimum value 0.1 million). For males, the SMOs was 2.062 million yen (SD =

4.545, maximum value 45 million, minimum value 0) and the WMOs was 2.454 million yen (SD = 4.619, maximum value 30 million, minimum value 0). It was found that the burden of WFOs tended to be large.

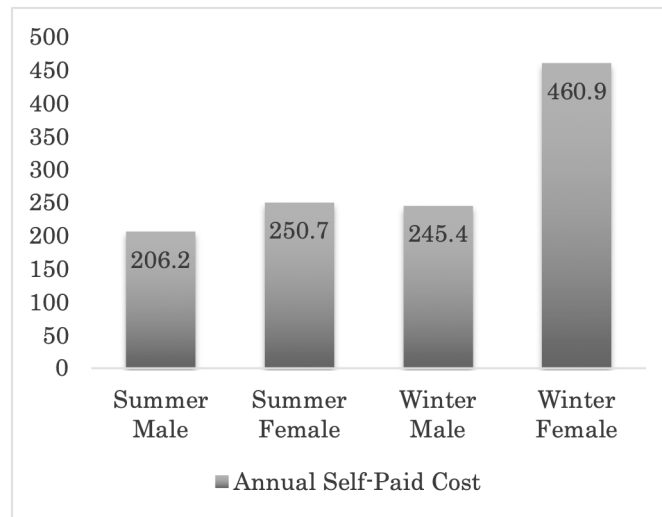


Figure 4.6 Annual self-pay amount (Yen)

4.2.4 DISCUSSION

It was assumed that tailored career support depending on the different causes of athletic retirement with male/female and summer/winter would be needed. The percentage of SFOs who retired for reasons such as "Satisfied with my results" or "No longer enjoying my sport" (20.6 to 31.4%) was relatively higher than that of males and WFOs (4.0% to 13.0%). More than half of males (57.1 to 57.4%) listed "To prioritize paid work" as the cause of athletic retirement, which was higher than in females (17.4 to 18.6%). In addition, 30% (30.4%) of WFOs cited "Financial problems" as the cause of athletic retirement, and the ratio was higher than that of males and SFOs (3.9 to 13.0%). The psychological causes of athletic retirement, which were high in SFOs, such as "Satisfied with my results" and "No longer enjoying my sport", would be included in the "voluntary causes of athletic retirement by free choice" in the career transition adaptation

conceptual model (Park et al., 2012). It is often thought that "voluntary retirement" does not cause any problems, but there may still be difficulties during retirement (Kerr & Dacyshyn, 2000). Park et al. (2012) mentioned that even if an athlete says, they "retired voluntarily", it may not have been voluntary, and the true causes of athletic retirement have been inherent, such as the relationship with the coach. These facts indicate that individual qualitative research with an SFO athlete should be conducted to know more details of what kind of career support would be necessary for athletes, who "retire voluntarily" such as for psychological reasons. Furthermore, what is the meaning of the cause of athletic retirement, "To prioritize paid work", as seen by male athletes? The question is whether they would continue if they were paid to continue to their sports. More than half of the males (51.9-54.4%) had no physical problems due to age, and about 90% of the males (87.3-90.7%) were not satisfied with their athletic results. Therefore, financial support for continuing sports would be necessary as occupational support for athletes. In career support, not only support related to employment after athletic retirement, but also employment support that can make it possible to continue sport might be necessary. Since a significant cause of athletic retirement of WFOs was "Financial problems", relations with the self-pay amount of expenses for continuing the sport need to be considered. According to WFOs, the average burden of "Annual self-pay amount" was 4.609 million yen, which was much higher than the average burden of 2 million yen for SMOs, SFOs, and WMOs. The percentage of the self-pay amount of less than 5 million yen was 91.1% for SMOs, 82.5% for SFOs, and 89.6% for WMOs, accounting for more than 80%, while WFOs was only 65.2%. The percentage of people who had to pay 10 million yen or more was SMOs 5.2%, SFOs 11.1%, WMOs 6.3%, and WFOs 17.4%. The reason why the amount for WFOs was generally higher than others is thought to be that the proportion of people who paid less than 5-million-yen was low and the proportion of people paid 10 million yen or more was high. In these calculations, account was not taken of inflation, so this may have affected the relative self-pay amounts in the different groups

of athletes. However, it is suggested that for WFOs continuing in sport tends to lead to an increase in the self-pay amount, which may contribute to the causes of athletic retirement. Therefore, it is necessary to investigate further what kind of career support would be practically effective for retirement due to financial problems. This demonstrates that there were differences in causes of athletic retirement depending on categories between male/female and Summer/Winter. It is certain that financial career support would be needed to avoid retirement due to financial reasons for present athletes. And, for retired athletes, tailored career support depending on each cause of athletic retirement is suggested.

Relationship between duration of athletic career years until participation in the Olympics and identity formation

From the results for the duration of the athletic career in years until participation in the Olympics, it was clarified that Winter athletes took longer than summer athletes in both males and females, and female athletes took longer than male athletes in both Summer athletes and Winter athletes. The number of athletic career years required for Summer/ Winter and male/female to participate in the Olympics was 20.7% in 1-5 years, 37.0% in 6-10 years, 29.2% in 11-15 years, 9.7% in 16-20 years, 2.8% in 21-25 years, and 0.7% in 26 years and above. It is clear that 6-15 years account for 60%, which means an average of 10 years ($SD = 5.1$, maximum value 28, minimum value 1 year) from the start of the sport. With 10 years leading up to participate in the Olympics, it can be assumed that athletes were involved in their sports for a long time from junior high school, through high school, to university, which would affect their identity formation and psychosocial development. In previous studies, athletes who devoted themselves to their sports during adolescence, in which identity is formed, are thought to form athletic identities. Although this athletic identity has a positive effect on sports performance in an active athletic career (Werthner & Orlick, 1986), it has been pointed out that it can cause many stresses during or after retirement (Wylleman et al., 1999). The International Olympic Committee (IOC)

provides career support for such stresses related to identity during retirement. The IOC Athletes Career Program, which began in 2006, is currently targeting Olympic athletes around the world, regardless of whether or not they have specific problems during retirement. For support with identity conflict at the time of retirement, the main career support facilitators are former Olympic athletes (IOC athlete committee members and international sports federation athlete committee members) (IOC, 2006). Based on these support cases, if the athletic identities of Japanese Olympic athletes are causing some kinds of stresses during and after retirement, what are they and what kinds of support are needed? Further investigation is needed to understand athletes' situations at their retirement depending on Summer/Winter and male/female.

4.2.5 LIMITATIONS AND FUTURE DIRECTIONS

The following shows the main issues and prospects for the future related to this section.

- 1) The average age of the Olympic athletes who responded to this questionnaire was 56.8 (SD = 16.2), from the youngest of 15 years old to the oldest of 89 years old. Although there were valuable findings in this investigation, since only 5% of respondents were under 20s, it will be necessary to investigate the actual conditions of younger athletes immediately after retirement.
- 2) Differences in causes of athletic retirement of SMOs, SFOs, WMOs, and WFOs were indicated in this investigation. Regarding WFOs, the findings suggested that urgent financial career support during their athletic careers is needed. However, since this was a quantitative survey, in the future, a qualitative survey would be needed to understand the actual situations of Summer/Winter and male/female athletes.

4.2.6 SECTION SUMMARY

Japanese Olympians' causes of career termination depending on the differences between Summer/Winter and male/female Olympians have been investigated. The Olympians registered in OAJ were asked: 1) the lengths of their sports career until their first participation in their Olympic games, 2) their ages and the causes of career termination, and 3) the cost of continuing their sport. Questionnaires were distributed to 965 Olympians, and 472 retired Olympians answered the questions regarding their career termination. The data collected was analyzed using descriptive statistics, analysis of variance and the chi-square test. Some of the most significant findings were: 1) The average lengths of the sports careers until the first participation in the Olympic games were about 10 years; 2) The causes of career termination showed variation, such as: a) SFOs tended to retire for psychological reasons—namely, either they were satisfied their results or they no longer enjoyed participating in their sports, b) WFOs retired because they lacked the money needed to continue, and c) SMOs & WMOs retired because of searching for paid employment; and 3) WFOs required approximately twice the amount of money to continue their sports, compared with the other three categories. These study findings provide valuable basic information to develop Japanese career support.

4.3 DEVELOPMENTAL EXPERIENCES AND ATHLETIC IDENTITY

4.3.1 DEFINITIONS OF THE PROBLEMS

The aim of this section is to find out what kind of needs Olympic athletes have for their career support. The investigation is conducted according to the factors determining the quality of adaptation to athletic retirement (Causes of athletic retirement, Developmental experiences, and Available resources) in the conceptual model of adaptation to retirement (Lavalley et al., 2014).

In the previous section, the causes of retirement were examined and it was found that: 1) the average lengths of the sports careers until the first participation in the Olympic

games were about 10 years among Summer/Winter and male/female Olympic athletes; and 2) SFOs tended to retire for psychological reasons.

This section focuses on the influence of developmental experiences and athletic identity on retirement. The definitions of the problem in this section are:

- 1) What kind of psychological reasons do SFOs have for their retirement?
- 2) What kind of developmental experiences does a female elite athlete have during her athletic life?
- 3) How do an athlete's developmental experiences affect the adaptation process to athletic retirement?

4.3.2 METHOD

The Participant

One Olympic medalist (hereinafter referred to as "P") in synchronized swimming (hereinafter referred to as "Synchro") was interviewed. Although the name of the sport was changed in 2018 to Artistic swimming, the name of Synchronized swimming is used to match the time of P's involvement in this sport. She was initially approached to participate in this analysis because she was a retired Olympic athlete. After the purpose of the analysis had been explained, she broadly outlined her developmental experiences related to her career transition process as an elite athlete. P's retirement story is thought to be of help in achieving the analysis aim.

Procedure

A life story interview was conducted in a room in P's home. All the data obtained from the one-on-one interview were recorded and transcribed. A semi-structured interview guide was developed to ensure the freedom to change expressions and the order

of the questions according to the situation. The question items were designed based on the Athletic Retirement Survey (Alfermann et al., 2004).

Informed consent

The purpose of the study and audio recording of the interview was explained to the participant prior to data collection, and consent was obtained. During the interview, the highest priority was given to respecting human rights and ensuring safety, for example by guaranteeing the right to choose to stop participating in the study at P's own will. The participant was asked to confirm the content of the transcribed interview prior to data analysis. All verbatim quotes included in this paper were also confirmed by P. This study was approved by the study ethics screening of the university to which the first author of this study belongs.

Credibility

The main analyst (the first author) was an expert in sport psychology and had over 20-years' experience of research and practice in athletic retirement. This background allowed the study to be distinguished from other media interviews. An independent researcher confirmed the analysis process to verify whether the first author's analysis was conducted from a consistent point of view. When different interpretations arose, discussions were held until the opinions of both parties agreed to ensure certainty (Miles & Huberman, 1994; Sakurai, 2002). The independent researcher was an expert in sport psychology and had experience in qualitative research. During the interview, the interviewer (first author) asked questions in a non-directive manner so as not to induce a particular response from the participant. To secure credibility, the participant's own words were used in the analysis, considering the influence of the interviewer. However, a study limitation is that interview responses were originally transcribed in Japanese, and quotes were then translated into English. The original responses of the interview in Japanese are shown in appendix A.

4.3.3 RESULTS AND DISCUSSION

P started participating in the sport of Synchronism at the age of 6 and was influenced by her two sisters, who were already participating in Synchronism. P participated in the Olympics at the age of 20 and won two medals. At the age of 23, P retired and experienced various careers such as going on to complete a master's degree at university, marriage and childbirth, and becoming a TV commentator. The present life story study identified 9 themes, including: 1) Starting Synchronism; 2) Deepening commitment; 3) Competitive characteristics; 4) Sporting values; 5) Retirement difficulties; 6) Current challenges; 7) New values; 8) Transferable skills; and 9) Advice for the next generation.

Starting Synchronism

"I started Synchronism at the age of 6 or 7 years old in the first grade of elementary school. Then it was actually we three sisters. I am the youngest of the three sisters and my two sisters happened to go to a Synchronism course there, and my two sisters got into it. Well, my mom is a strange person, she thinks it's better to do something not everyone does than to do something everyone does, like swimming. Yes, so my two older sisters did Synchronism, and I'm 5 years apart from my second sister. Naturally, I started looking to them."

P's reason for starting Synchronism was not a self-motivated intention to do so. As the quote above indicates, it was largely influenced by her sisters, who started Synchronism first. It can be said that the beginning of the relationship with Synchronism for P was due to an extrinsic motivation. This type of motivation can be explained by the self-determination theory of motivation (Deci & Ryan, 1985). Her initial motivation was an extrinsic motivation, with her family involvement as a social support.

Deepening commitment

"There was one time I really wanted to quit at the beginning. It was when I moved from 6th grade to junior high school.... It was a bit tough in the days when I didn't swim for 2 weeks. The fact of being "a person who doesn't swim". So, I thought of going back. It all came to me, so I went back. At that time, I realized that I couldn't continue unless the coach believed me. I actually made a false

accusation. I don't remember doing that, but the coach said I did. No matter how much I loved Synchro, I couldn't continue unless she believed me. So, I quit. But I loved Synchro, so I went back. When I couldn't swim for two weeks, I realized that I really needed Synchro. I was really worried. I was in the middle of my adolescence. You know it was a tough time. The environment changed. I started going to junior high school. In many ways, I felt that it was painful that I couldn't do Synchro. Yes, no matter what I did, it wasn't fun. Even when running at the track and field club. It was when I started the first grade in junior high school. Then I went back, and well it was really fun."

P felt that she was not trusted by the coach and so decided to quit Synchro. While P was away from Synchro, she became involved in a track and field club for two weeks. This showed how important the trusting relationship with the coach was to P to continue Synchro. However, for the two weeks away from Synchro, P felt that it was difficult to see herself without Synchro. P realized that she really liked and needed Synchro. The commitment to immerse herself in Synchro was growing, and at the same time, it is considered that her motivation changed. This motivation shift can be explained by the self-determination continuum (Ryan & Deci, 2000). Her motivation was shifted to integrated regulation (she needed Synchro), and to intrinsic regulation (enjoying Synchro). Her athletic identity as a Synchro swimmer began to be built during this period.

Competitive characteristics

"When I think of it now, I think I was very childish. I wonder if I could have been a little calmer and I could have thought in an adult way or given an adult response. But you know, there is only zero or 100 at that age, don't you think?"

P was able to look back at herself objectively saying that she was childish and could not express herself properly when her opinions differed from the coach's opinion. However, P still felt even now that she could not help acting like this. It is assumed that the expression, "There is only zero or 100 at that age, don't you think?" demonstrates the feeling of everything being "black or white", and asks understanding of the interviewer.

With this kind of narrative with the generalization, "don't you think?", it can be considered that P recognized that the interviewer understood the model story, which was observed as being the "model story of an athlete who lives in the Synchro world". Moreover, the expression, "zero or 100", can be regarded as a sense of distance from Synchro. It can be imagined that there was no halfway for P due to the strength of the commitment. This way of thinking can be read as "all-or-nothing thinking" in cognitive therapy (Beck, 1995) and as such, can cause stress in life events for example at retirement.

"Well, what can I say, you know, maybe it sounds bad, but as an athlete, I really felt like a machine. I was like a swimming machine. I was treated as a swimming machine. The machine was named "Athlete". I was so sad that my opinion as a person was not respected or heard at all. To some extent, I thought I had been recognized as an athlete after overcoming both the Olympics and the World Championships. It was like a complete rejection."

The "swimming machine" is a metaphorical expression indicating that she could not change her movements at will. This expression may reflect the competitive characteristics of Synchro. Synchro is a closed-skill sport. It is important to complete the prescribed movements as practiced and to synchronize with others. It is very different from open-skill sports, such as soccer and basketball, where the situation changes on the spot, and it is necessary to judge it accordingly. Also, because of the characteristics of the sport being scored by others, it can be said that the coach's evaluation became absolute, leading to the perception that the athlete is a swimming machine driven by the coach. For P, it seemed that she started wanting to assert her opinions as she had achieved some results; however, the reality was different. Because she expected that her opinion would be listened to by the coach, P was sad and ended up saying, "I was like a swimming machine". At the same time, it can be said that a machine is highly accurate and will never betray control. The expression might be capturing herself as a synchronized swimmer who established a strong connection with the coach, who was the pilot of the

machine. The phrase "swimming machine" can be said to be a characteristic expression of athletic identity in terms of how she perceived herself. It is also assumed that thinking of herself as a machine can be explained as a foreclosed athletic identity, which often occurs among elite athletes and can lead to psychological adjustment difficulties (Brewer, Van Raalte et al., 1993; Lavalley & Andersen, 2000).

"Even though I thought I had done very well, the coach got mad at me. The score did not match. What was it? Sometimes when I didn't do well, the score was high. The coach praised me. That meant what I did and the result didn't match. It is such a disgusting sport. At that time, I was really wondering what this was about."

In soccer, for example, players can visually confirm the track of the ball kicked by a player. Even in gymnastics, a similar sport to Synchro as it is a scoring sport, it is possible to feel and visually check the quality of work by touching the ground. However, it can be assumed that it is very difficult for a Synchro swimmer to check her performance herself, and her sense of performance and the evaluation of others may differ. Generally, in sport, the feeling of "I did it" is one of the great feelings; but the feeling did not always match the result or the coach's evaluation. This fact influenced her view of it being "a disgusting sport". Based on the phrase "at that time", it is believed that P now accepts and understands the characteristics of Synchro.

"I knew in my head that it was important to think I should just do my best and it was OK if I thought I had done well. But you know, we were people who were graded, so it was really important and we were sensitive to the evaluation of others. I was just worried about what people thought of me."

P knew that the feeling, "I did well" was important. But at the same time, P was very concerned about the evaluation of others because Synchro is a judged sport. In Synchro, a sport in which one's feelings and others' evaluations often differ, the meaning of being oneself while caring about others' evaluations is captured. Nakagomi (2012) pointed out that elite athletes who had a strong athletic identity in adolescence would have psychological challenges at their retirement if they were not able to follow career choices

which their surroundings offered. If P's thought of being "sensitive to other people's evaluation" was cultivated through Synchro, then it can be considered that this thought may have negatively influenced her psychological adjustment to retirement.

"Perhaps until now, there have been many people who have instructed me without me asking to be instructed. I was doing it even though I didn't like doing it. So, I think I didn't really ask for anything."

The days P devoted herself to Synchro were under the strict guidance of the coach, which meant that P was always with someone who instructed her. There was also a competitive characteristic in Synchro, where the evaluation by others was important. And since P's training was usually for meeting the demands of coaches, P analyzed herself as having little experience of seeking instruction herself. Through Synchro, P developed her own tendencies in her interaction with others.

Sporting values

"Well, I was very weak. My mind, like my mentality, my mind was weak. I was influenced easily and became lazy. Well, basically I just didn't want to lose against myself."

Based on this self-awareness, it is shown that P valued "not losing against herself". It can be said that P was constantly living a life that was not easy. Perhaps P was able to move toward autonomy because she could recognize herself as a person who wanted to enjoy herself without being overconfident.

"I skipped some training. I was young. And when I was young, I didn't go to training several times. But the feeling was uncomfortable. When you skip training, you can't help thinking, 'Ah, now they're training. Maybe this is the time they started the warm-up. Now they're doing a swimming menu... Now they're doing routine training.' Maybe you know, right? You can't help thinking each minute. Not fun at all. So, I realized at the age of being in elementary school, it is refreshing to go and do some hard practice."

P had the experience of "skipping training" when she was young. And, at that time, P felt that skipping training was neither comfortable nor enjoyable, so that by the time P

was in elementary school, she ended up having the notion that "it is refreshing to go and do some hard practice". It is assumed that this kind of notion led her to commit to Synchro and developed her athletic identity. This was not because of the fact that adults might say, "Don't skip training"; P realized this herself, based on her own emotional experiences. So P grew up to become a voluntarily training athlete. Moreover, the expression, "Maybe you know, right?" can be explained as a reference to the "model story of a player who lives in "the Synchro world", which is also observed here. The interviewer was asked to understand.

"I would think that there was no point unless you win. But not only winning. Winning was not enough. Winning with the coach's OK sign was important. So even when I won, if the coach didn't look happy, of course I would try to win though, but then I had no clue. In myself, sometimes I had the feeling that I swam very well. So, when my feeling and the evaluation matched, I had a great feeling of achievement. But somehow there were quite a few things that I did not feel clear about in myself."

P believed that it would be meaningless if she did not win. At the same time, it was important for P to win with the coach's "OK sign". This is considered to indicate again that it is a unique sport in which athletes cannot check their performances. Therefore, P could achieve a sense of accomplishment only when three points were established: winning, the "OK sign" from her coach, and her own feelings. It is assumed that P was not only committed to Synchro but also to her coach. It can be assumed that it would have been psychologically difficult for P if her decision about career termination and career choice after retirement had not been accepted by her coach.

After retiring from Synchro, P worked at Cirque du Soleil for few years and performed in their Las Vegas show as a professional (salaried) Synchro swimmer.

"It's just like the difference between professional baseball players and Olympic athletes. The Cirque is 365 days. But you have a day off twice a week, and within that, if you hit 30%, it's good. But for the Olympics, you see, it's different. It's only once in 4 years and it's only 5 minutes or 3 minutes when you really need to focus. To the extreme. You know? That's different."

Considering her experience as a show performer, P explained the difference between an Olympic Synchro athlete and a show performer. The Olympics are held only once every four years, but the Las Vegas show was held every day. P thought that she needed to focus "to the extreme" when she was an Olympic athlete.

"It was not being perfect. Rather, I always wanted to aim higher. I wanted to go higher. The desire to be strong was extremely high. The desire was really huge."

The expression "I always wanted to aim higher" showed a strong desire to set endless goals and continue to pursue better things. This is thought to lead to the expression "The desire was really huge".

"I have the personality to drive myself hard. I feel I have to. Otherwise, I can't do anything. So, I need to put myself in a tough situation. Otherwise, I can't start doing things. That's me."

P analyzed herself, saying that she could not move forward unless she put herself in a tough situation. In other words, it can be said that P was able to drive herself even in a tough situation. Moreover, P was also able to see the tough situation as if she had created it. This kind of a coping strategy, reappraisal (changing the way a situation is viewed), is used frequently used by elite athletes (Uphill & Jones, 2011). Because of this self-awareness, it seems that P knew what to do when she was in a tough situation during her athletic career.

Retirement difficulties

"I had huge pride at the beginning after retiring. You see, in the Synchro world, I was top. I had a strange pride in myself that I used to be top in the Synchro world, so I couldn't honestly say I didn't understand when I didn't understand. I entered the TV world at first. I could have asked for instruction if I didn't understand. But I tried to fix it by myself. It was tough. It was really tough. Then, I couldn't show my weaknesses or couldn't show my weak points. I felt I was so alone. For a long time. But you see, I was proud. So the ideal in me was really high. In everything. Even as a TV reporter, TV commentator, in myself, my ideal image was so high. This was good though, but then after all, my ability was not good at all. The gap was tough in the first year. I was a TV commentator

once a week. Every time on the way back home in the taxi, I got very depressed. I cried going home. Really. It was really tough."

P was very depressed every time after finishing her job, and it was tough. However, P was not able to cope with the feeling by seeking help. P had a self-image associated with being at the top in the world of Synchro. And the pride in her self-image prevented her from seeking help. P might be categorized as an athlete who has "the Olympic self-image" (Petitpas et al., 1992). Petitpas & Champagne (2000) pointed out that athletes with the Olympic self-image may have developed a sense of entitlement, and this perception of entitlement may be covering up feelings of fear or insecurities about lacking the skills necessary to become an elite performer in another career. It is assumed that P's case was similar. It is also considered that P had an irrational belief, "Absolute must's and should's" in Rational Emotive Behavioral Therapy (REBT) (Ellis & MacLaren, 1998), such as, "I should do well in world other than sports", "I should solve problems by myself", "I shouldn't have to be instructed by others", and "I shouldn't show my weaknesses". Because of these irrational beliefs, P ended up deciding to act alone.

"After all, when I retired, I wondered why everyone in the world wasn't working so hard. Why were these people, saying they can't? They can't because they're not working hard enough. I really didn't get it. So? Well, then you just do it. Why you don't? I was really wondering why."

The criteria and the definition of "working hard" would be different depending on each person and each situation. However, it is considered that her firm definition of "work hard" had been formed through the experience of spending time with her teammates who aimed to participate in the Olympics and win medals during their careers as athletes. Therefore, it seems that P applied her own definition to everyone immediately after retirement, and P evaluated people as "not doing their best" on the basis of the gap with her own definition. It suggests that P was confused and irritated by the gap. It can be said that the people who interacted with P changed due to her retirement, and P felt the difference in the common sentiment in her community during her athletic career and

others. It would be difficult for P to get social support from others while having the feelings above.

"How can I put it, really, I have to keep my energy in check. I shouldn't show my feelings. I have to live without letting out my feelings. I have to be gray. Gray in color. I have to act like this. You know even if I told them, no one understood. That's it. Okay, okay, maybe that's the way it is. That is what it means to become an adult. Wow, what is that? Somehow, it seems that people have to walk at the same pace in society. You have to adjust."

P uses the term "act". It seems that P felt the need to live in a "gray" self (not black or white, but rather in the middle), which was different from her true self. However, P thought that her feelings were not understood by others and convinced herself that this was what it meant to become an adult and she tried to keep pace with the people in the society. As P said, "even if I told them, no one understood", it is thought that P felt it to be meaningless to talk to anyone about her feelings. This can be seen in elite athletes at their retirement. Petitpas & Champagne (2000) pointed out that many transitioning athletes believe that few people understand what they are going through. In that case, it would be difficult to get a social support even if it were available. P was uncomfortable with the difference in her life as an athlete and her life after retirement. However, P also felt that it was unavoidable. From this, it can be seen that P thought that the world in which she lived changed due to the turning point of retirement. The ways of thinking such as "being gray in color", "keeping my energy in check", and "walking with the same pace" are thought to be her coping strategies in going through the transition.

"I wanted to be aiming higher. I had my ideal image higher. I was able to reach a high level in Synchro, but as a TV commentator, well, suddenly, a person like a baby takes on an ideal image for a greater level. There is a dilemma. I was also irritated about the laziness of the people around me."

P was willing to aim higher in her new working environment after retirement. However, it was difficult for P to accept her ability in the job as a commentator, in which she had no experience at all, unlike Synchro in which she had prolonged experience by

then. As a result, P suffered the difficulty not being able to do well in the work. When P was not satisfied with her own ability, she also judged the people around her as being lazy. It is thought that P was not able to share her feelings of difficulties with the people around her as she judged them as being lazy. At the same time, it is questioned what kind of feelings P had inside her when evaluating others as being "lazy".

Current challenges

"As a wife, mom, TV commentator, everything was not the same. In the past, I thought I would just do whatever I wanted to do, but now, well, there are so many things you can't do even if you want to. Sometimes I feel, What? But the kids come first. Family first. Balance around that, the balance for living. How to balance yourself around that so that nothing breaks."

P used to have the idea of always doing what she wanted to do. However, now, she had to fulfill multiple roles as a wife, mother, and commentator. So she seems to have come to the idea that there were things that she could not do even if she wanted to. It is probable that P was able to concentrate on the role of an athlete in her athletic life. However, in the current situation where multiple roles needed to be performed at the same time, it can be seen that she was facing the new challenge of worrying about balance in life. It is questioned, though, whether P did not have to balance her life roles in her athletic life. Petitpas et al. (1997) emphasized the importance of recognizing multiple life roles. During P's athletic life, she would have had many different life roles such as daughter, student, athlete, friend, and she would have balanced the roles. However, P seemed to have difficulties in balancing multiple roles as a new challenge. Recognizing multiple roles as an athlete and foreseeing future life roles have been a part of self-exploration interventions in career assistance programs for decades. If P had known about the notion of life roles in advance, the way of looking at her current situation might have been different.

"That's why, there is no challenge at all anymore. That is, well, I think it can't be helped. Yes. But, if you give up something, it will not continue, so I go on."

P felt that the current situation was not challenging, using her own definition of "challenge" based on her experience as an athlete. In addition, when looking around at others, P regarded the post-retirement world as a world in which it was not necessary to live a challenging life. Besides this, P regarded the current world as a world where she had to care about the balance in living. From this, it seems that P accepted the current situation as being unavoidable. Although P was dissatisfied with the fact that it was not challenging, she thought that if she gave up and quit, it would be the real end. So, she made the choice to continue.

"In the past, you would have to use 120% of your strength. Otherwise, you didn't feel you were working hard enough. It's not like that now. The environment I have now, the environment given to me now, you just do what you can in the given environment. This, doing what you can do, is like only 30 or 40% of my effort compared with the past. So, that kind of myself, is it OK like this? I just think I want to do more; a burning heart. You know we have the kind of DNA, don't you? I am trying to make it good, adjust it myself. A balance is needed for me now."

For P, the definition of "work hard" based on her athletic experience was to exert 120% of her strength. However, now this was important not to use it as her standard, but to do things as much as possible in the current environment. At the same time, since this standard cultivated in the athletic life was deeply rooted in P, she felt that this was only 30% compared with the past. Therefore, P sometimes desired to do more in this present situation, and she was using the term DNA to describe herself. This was considered to be the recognition that P thought that she had the characteristics of an athlete. Also, from the expression "don't you?", the reference to "the model story of an athlete who lives in the Synchro world" was observed here, and the interviewer was asked to recognize the person as having that DNA. And from the statement "a balance is necessary for me now", it can be seen that she recognized that applying 120% of her strength according to the athlete's DNA would be overkill in her current life.

"I think being an athlete was definitely more stressful than now if I think about it now. But, at that time, we went on to the end, right? We did 100%. But now, I have the stress that I can't do 100%. I

have the stress that I can't go on until the limit. It means that I can't push myself hard. In my mind, I don't have time. You know I want to do so much, but I have to pick up the kids. I have this kind of stress. I'd better really not to think this is stress, but I can't help feeling stressed about those things. I guess I feel stressed to be in the halfway."

P felt that it was more stressful now than the time of being an athlete even though the athletic time must have been really hard. She felt stressed about not being able to do what she wanted, such as not working hard and lacking time, compared with the days of working hard to the limit every day as an athlete. And P self-analyzed that being halfway was stressful, and also seemed to understand the value learned from the appearance of others met after retirement. There was a conflict between herself as an athlete and herself at present.

New values

"It's a completely different way of thinking from the way as an athlete. So, it is not winning for myself only. I just realized so many things. When I was an athlete, I was just doing my best. But not that. I was at the top, above the people who supported me. I was just sitting in the most shining place. I realized in the TV studio that there were so many people supporting me. Sitting on the stage in the studio, you see, there are many kinds of people in the studio. There are sub-directors, sceneshifters, and others. I can see them right in front of me. Wow, there are so many people supporting the TV show. Then, I noticed that maybe Synchro was the same. I noticed it now. It's been so long since I retired. How silly I was when I was an athlete. I was not thinking about anything."

P strongly recognized the difference in the way of thinking from the time of being an athlete. Through her work on television, she learned that she could shine in a good position only with the support of many people. Through this awareness, P realized that it was the same when she was doing Synchro. At that time, she was thinking about herself only, and she did not notice the support of people.

"But I was saying thank you very much in words. I said it, but what did I really appreciate? I've just realized that. I felt that the only thing I could see in front of me was the coach."

P used to say thank you during her athletic career, but began to realize that it might have been superficial. P remorsefully reconsidered that she cared only about her coach, and so she could not see the many people who supported her, and she could not be truly grateful. Looking back on herself as an athlete, P realized that the quality of gratitude was different than it was now.

"For me, I tried a lot of challenging things, and even at the Cirque, I did what I wanted to do. I've lived a long time thinking that I can't understand unless I try. But I realized that there are people who can't do this. I realized that it was strange to impose my thoughts on people."

P was able to challenge what she wanted to. Also, when P was an athlete, she spent a lot of time with coaches and teammates who had the same goal of winning medals at the Olympics. So that she assumed that her thoughts were correct. However, after retirement, P met many people and found that not all of them lived the same way as she did. Then, P seemed to have begun to realize the meaninglessness of evaluating others based on her own criteria as an athlete and imposing her own thoughts.

"If I make it simple, it's just not about winning. Winning, I've always thought that I won't be recognized unless I win, but, I think the world is like that. But being recognized by people isn't everything. We are not living to get people to recognize us. I would be happy to get recognized, and I'm happy if I'm praised or told that I'm amazing. But that's not everything. Not only that sense of value, but what you are is actually the most important thing."

Since P lived in the world of judging sports where rankings were decided by judges, it seems that she had a strong feeling of being recognized otherwise she would not have been able to win. However, after retirement, she began to think not only about winning and losing, but also about her own way of life. At the same time, P thought that the desire for approval was also a natural desire for humans. It is considered that P has come to accept herself as having the desire of being recognized.

"After retirement, I went to the media world. Of course, if I did something wrong on TV and people hated it, I would not be able to stay there. But I'm not working to be liked by millions of people, so as myself, who I am, I can live a little more naturally and it's OK to be relaxed in life."

Being involved in the media business, P realized that she was not working to be liked by everyone. As a result, she encountered a new way of life in which she could live naturally and relaxed.

"Gradually, I started to notice various things little by little. Well, well, I was at the top in Synchro, but the level of commentating was less than zero. For example, I was swimming all the time when all ordinary students were studying for 4 years. My starting line was really behind compared with others. It is obvious that the level or my starting line was behind. After all, I wondered what this was for various people. I was starting to wonder if it was okay to expose myself a little more. That was the second or third year after starting the job."

P thought that even though she was the top in the world of Synchro, there were things that she could not do well because the challenges changed. Then, she began to accept herself that it was all right to be behind compared with others, because she had been an athlete for a long time. By admitting not being able to do things well, she was able to correctly evaluate what she could do at the same time. It seems that this led to the courage to expose herself to others.

Transferrable skills

"To get results, enough preparation is needed mentally and physically. It's easy to say, but I was able to really experience it. That applies to anything. In anything, preparation and process are important. There is no unfounded confidence. It's similar to what I talked about earlier, but I have well-founded confidence only in me. You just need to prepare. At least the minimum preparation. At work as well. And preparing for kids is the same. Everything needs preparation. I need to prepare for the coming time. That was something very important as an athlete."

Transferable skills are defined as skills learned in one area of life that can be used in another area (Murphy, 1995). Athletic transferable skills can be defined as abstract skills learned in the athletic environment that are applicable to another career (Mayocchi & Hanrahan, 2000). P was experiencing how much mental and physical preparation was needed to produce results. P seems to have learned about the necessary approach to produce results no matter what the issues were. This kind of preparation is thought to

have come from her will to succeed. The will to succeed is one of the transferrable skills among elite athletes (Mayocchi & Hanrahan, 2000). It is assumed that P did not know the notion of the transferrable skills, but she knew she had learned these through her athletic life and that they were still useful in her present life.

"I had to be sharp otherwise I couldn't reach the top. So if you are lax, you can't become the number one in the world. I used to be very, very sharp. I think that having such an experience when I was young was an extremely valuable asset. I can't live like this for the rest of my life. But after all, being able to experience such a thing when I was young, once you become an adult, you can't that do easily, don't you think?"

P thought that it was important not to be lax, but to be sharp in order to aim for the top in the world in a certain field. The experience was difficult to gain after becoming an adult, even if one tried. That is why she regarded her experience of being able to do so when she was young as a valuable asset. Also, from the expression "don't you think?", "a model story of an athlete living in the Synchro world" was observed here as well, and P recognized the interviewer as someone with the same experience of a sharp state in her youth. P thought having the experience of being sharp was valuable even though she thought that this sharp state was not needed in the world after retirement. If the experience of being sharp can be interpreted as a feeling of achievement, then it can be thought of as a transferable skill (Petitpas et al., 1992).

"I learned that it is important to make an effort. So, you see, some people don't know how to make an effort. Like someone saying, What does effort mean? Maybe asking, Why do I make an effort? Well, it's not just good results, but it's kind of like repeating something that comes with results and something new comes out of it. It was very important that I learned how important it is to build up a career. Since I was kid, I learned that. That is very important."

P thought that she had learned how to make an effort to get results during her athletic life. This can be interpreted as several transferable skills. "Knowing how to make an effort to get results" can be defined as transferable skills such as the ability to attain goals, perseverance, and self-motivated (Mayocchi & Hanrahan, 2000). P had been involved in

sport since she was a child and thought that this continuous experience was important. Also, she thought that doing competitive sports and taking on challenges brought experience of negative results when things did not go as expected. However, P believed that if she continued to make an effort, something new would be born, and she believed that continuous experience would form her career.

"There is the term, having a successful experience. But for us, we experience both success and failure through sports, right? Because I experienced all of these totally, I know if I do something, I will either succeed or fail. But I know someday success will come. After all, if you do not take on a challenge first, nothing will start. I think that the valuable experience that I had in sports is being utilized to the fullest in my subsequent life."

P knew empirically that anyone who had a successful experience knew both success and failure. It can be said that she knew experientially that nothing would start unless she took on challenges in her sport. This can be explained as a transferable skill, the ability to take on challenges, based on her acceptance of failure on the road to success (Mayocchi & Hanrahan, 2000). It can be seen that P felt that the experience gained through sports was still useful in life after retirement. The expression "for us, ... right?", indicates the feeling of asking the interviewer to understand. This kind of narrative can be considered to indicate that P recognized the interviewer understood the model story, which was considered to refer to the "model story of an athlete who lives in the Synchro world". It can be seen that P felt that the experience gained through sports was still useful in life after retirement.

Advice for the next generation

"I just think you should learn. First you should learn. Because athletes are not stupid. Don't you think? Athletes are aware of the problems in many ways. They are even aware of the problem of retirement. Also, of problems such as those of society, the sports world, and so on. Not only by feeling, but you also have to have the competency to explain things properly through theories. Otherwise, you are not useful in society; you can't survive in life. This learning, maybe all athletes should do. Perhaps it depends on what you want to do, but if you start working, you can never avoid

it. Without learning, for the time being, I think there's still a trend that it's OK to just do sports. This should be changed, don't you think?"

P thought that athletes had a strong sense of finding problems in society and themselves. From the expression "don't you think?", the reference to "the model story of an athlete who lives in the Synchron world" was also observed here, and the interviewer was to be recognized as having the same awareness. However, if the awareness of the problem through the athletic experience remained too sensuous, it would be difficult to convey it to others and it would not be possible to discuss it. P pointed out that it was important to develop the ability to explain one's feelings in theory in order to live in society. It was important to study for that purpose, and P asked agreement of the interviewer "don't you think?" that P still felt that there was a trend that it was all right to do only sports without studying during the athletic career.

"When I was an athlete, I was directed to do this and to do that by the coach. But I was directed without noticing that I was directed. I was on the set rails. They were not the rails I chose. I was running on the rails, and I was pushed from behind. So, instead of being pushed on the rail from behind, after all, you have to choose your own way to go, you have to hold your own rudder, you have to have your driving force, you have to go forward by yourself. Otherwise, if you don't do that, you'll regret it somewhere, and myself, I think there are various regrets about this, when I was an athlete. That's why I was able to do that, you know. That is why I was able to win a medal. I know that is why I am here. But well, you know. Even when you are in a second career, if you stumble again, well I am sure you stumble. Even if you take a detour, you should go on your own."

P thought she was running on her own rails but realized that she was actually running on rails without her will. It is assumed that the rails were decided by her coach. And because of that, P believed that she was able to win the medal. At the same time, she admitted that she had regrets. Because P believed that her regrets led to a stumbling block in her second career, she advocated the need to go on one's own, even if one makes a detour. P emphasized that what was needed immediately after retirement was learning

and autonomy. In other words, looking back now, it can be inferred that P herself wanted to learn and become autonomous at retirement.

From P's life story, several important results are observed. First, development of her athletic identity was found. She committed herself to her sport and developed her athletic identity around the age of junior high school, and her self-image was developed relating to her sport as a "swimming machine" and "zero or 100". Second, the Olympic self-image caused difficulties at retirement. Third, starting a new career demanded some coping strategies with her transferable skills. And lastly, psychological difficulties relating to athletic identity still existed even decades after her retirement.

At the end of the analysis of P's life story, the following should also be noted. P achieved her athletic goal by attaining two Olympic medals and three world championships medals. After the successful results, P was considered to have retired for psychological reasons. Since sporting goal achievement was positively related to post-sports life satisfaction among retired athletes (Sinclair & Orlick, 1993), P might have been expected to be satisfied with her post-sports life. P did not mention the degree of satisfaction in her life; however, P told the interviewer that she still did not want to confront the real causes of her retirement. In other words, P revealed in the interview that she did have a different reason for the retirement from what she used to say in public. Although P did not have clinical psychological issues during or after her retirement, it is assumed that P had some psychological adjustment difficulties even now. P managed by herself using various coping strategies in her own way, but it is presumed that there was still a conflict between herself as an athlete and her present self even after nearly 30 years of retirement. Athletic retirement research so far has clarified the need for interventions at the time of retirement and the need for proactive interventions before the retirement. From P's case, it is observed that a former elite athlete who had been retired for several decades still had psychological difficulties, including an athletic identity issue. It is assured that a psychological intervention for athletic retirement is needed in Japan.

The purpose of this analysis was to further advance research in the area of retirement from sport, with a specific focus on the developmental experiences related to the adaptation to retirement in Japan. The findings have added details to the conceptual model (Lavallee et al., 2014). Specifically, the results of the analysis reveal that the developmental experiences during the athletic career affected the athlete's identity formation and loss of self-confidence (Lavallee et al., 2014) for the psychological adjustment difficulties related to athletic identity at retirement, helping athletes develop a sense of who they are beyond sport is a useful intervention that can occur at any time in an athlete's career (Lavallee & Andersen, 2000). It would be better to consult a sport psychology professional prior to the retirement as a proactive coping strategy. However, once athletes retire, a psychological approach by professionals is needed to help athletes develop an understanding of what they are going through in the transition (Baillie, 1993; Petitpas et al., 1996).

4.3.4 LIMITATIONS AND FUTURE DIRECTION

There has been increasing research in the area of athletic retirement, but Stambulova & Ryba (2013) indicated that further research on cultural differences is required. Moreover, Taku & Arai (2020) highlighted the importance of research in Japan given the postponement of the 2020 Tokyo Olympic and Paralympic Games as a result of COVID-19. Even though the present study advances knowledge in this area in Japan, the present analysis cannot generalize Japanese athletes' psychological difficulties at their retirement. Further investigation would be needed.

4.3.5 SECTION SUMMARY

The purpose of this section is to focus on the developmental experiences related to the adaptation process to athletic retirement. One retired Olympic medalist was analyzed through the life story analysis method (Sakurai, 2002), which was adopted in order to examine identity-related issues. The analysis revealed that the developmental experiences

during the athletic career affected the athlete's identity formation and loss of self-confidence (Lavalley et al., 2014). The findings of the analysis also added details to conceptual model of retirement from sport.

For the psychological adjustment difficulties related to athletic identity at retirement, helping athletes develop a sense of who they are beyond sport is a useful intervention that can occur anytime in an athlete's career (Lavalley & Andersen, 2000). Therefore, it would be better to seek consultation with a sport psychology professional prior to the retirement as a proactive coping strategy. However, once athletes have retired, a psychological approach by professionals is needed to help athletes develop an understanding of what they are going through in the transition (Baillie, 1993; Petitpas et al., 1996). Even though this study advances knowledge in this area in Japan, the present analysis cannot generalize Japanese athletes' psychological difficulties at their retirement. Further investigation would be needed (e.g., into whether other retired female elite athletes have psychological difficulties at their retirement).

4.4 NEEDS RELATED TO STRESS AND COPING AFTER RETIREMENT AMONG ELITE ATHLETES

4.4.1 DEFINITION OF THE PROBLEM

Athletic retirement has been found to be associated with psychological distress for many athletes. Accordingly, it is necessary to match career support depending on the stressors. The JOC Career Academy (JCA) has focused on the service contents regarding occupational support, which can be said to provide support with financial and occupational stress; however, other support such as psychological support was unclear due to the lack of psychological professionals at the JCA (chapter 3). When tailoring the program, it is important to match the service contents to the needs of the athletes at athletic retirement. Japanese Olympic athletes have been found to retire for different reasons. Especially female athletes competing in the Summer Olympic Games were

found to retire for psychological reasons (chapter 4.1). In addition, a Japanese retired female elite athlete had psychological difficulties relating to athletic identity issues in retirement (chapter 4.2).

Therefore, "What kind of psychological support is needed among Japanese elite athletes?" is the main question of this section. The purpose of this section is to find out types of stressors in retirement in elite female athletes. It is hypothesized that types of stressors can be conceptualized through interviews, and types of coping strategies can be examined based on the conceptualized stressors.

4.4.2 METHOD

Forty-four retired female athletes from 13 competitive sports (Table 4.3) were asked, "What kind of stress did you experience at retirement from your sport?" during their participation in a coaching education seminar for women. The number of professional athletes and those who had experiences of competing at world level competitions (hereinafter referred to as elite athletes) was 9, which was 20.5% of the participants in the study. In the analysis, the KJ method was employed to better understand stress experienced as a result of retirement. In the analysis, discussions were held until the two KJ method interpreters, who had followed stress coping training, agreed on the interpretation.

Table 4.4 Participants of the study

Sports	Number
Track & Field	8
Swimming	4
Gymnastics	6
Cycling	1
Soccer	6
Basketball	4
Handball	2
Volleyball	4
Tennis	2
Softball	3
Rugby	1
Golf	2
Cheerleading	1

4.4.3 RESULTS

Result 1: Athletic retirement stressors

Eighty-seven responses were obtained from 36 respondents with a response rate of 81.8%, excluding non-responders. As a result of sorting and consolidating using the KJ method, nine conceptualized stressors were generated; 1) Desire to live as an athlete, 2) Regrets about sporting results, 3) Conflict with athletic retirement, 4) Relationship with close surroundings after retirement, 5) Denial of past athletic life, 6) Challenges of working as a woman in the society, 7) Career development as a coach, 8) Career plan after retirement, and 9) Conflict with athletic identity.

1) Desire to live as an athlete

This stressor was created to describe the stresses related to the desire to live as an athlete. The subcategories were "Concerns about food", "Lack of the same amount of passion as in the athletic life", "Physical changes since the days as an athlete", "Lack of satisfaction with exercising", and "No connection with teammates".

2) Regrets about sporting results

This stressor was obtained from two of the subcategories which were: "Did not end with satisfying results" and "Did not become an Olympic athlete".

3) Conflict with athletic retirement

This stressor was created from the stresses regarding athletic retirement. The subcategories were: "Feelings about continuing my sport" and "Regrets looking back on athletic life".

4) Relationship with close surroundings after retirement

This stressor was created from stresses relating to people around the athletes. The subcategories were: "Difficulty in communication with federation and coaches", "Interference by people around", and "Feeling sorry for people around".

5) Denial of past athletic life

This stressor was obtained from the stresses relating to the feeling of denial of the past. The subcategories were: "Feeling a lack of ability to use skills learned from sport", "Feeling like avoiding involvement in my sport", and "Lack of confidence about body image".

6) Challenges of working as a woman in the society

This stressor was created from the stresses related to challenges of working as a woman in Japanese society. The subcategories were: "Difficulties in working as a woman", and "Male dominated atmosphere in sports federations".

7) Career development as a coach

This stressor was created from two answers without creating the subcategory. These answers were: "I'm not good at expressing my thoughts well during coaching" and "Irritation about the gap between myself as an athlete and as a coach".

8) Career plan after retirement

This stressor was created from the stresses relating to the career plan after retirement. The subcategories were: "Anxiety about employment/life" and "Anxiety about future".

9) Conflict with athletic identity

This stressor was created from the stresses related to athletic identity. The subcategories consisted of 4 categories; "Anxiety about myself outside of sports",

"Anxiety about adapting to society", "Anxiety about the lack of knowledge of how to live outside of the sports world", and "Lack of energy in life".

Result 2: Stressors categorized into adjustment types

In order to understand the match between coping strategies and athletic retirement stressors, each stressor was classified according to the four types of adjustment which tend to be experienced by athletes towards the end of their careers (Stambulova & Samuel, 2019). The four adjustment types are: psychological, social, financial, and occupational changes. Nine stressors were categorized into the four adjustment types and a ratio was calculated. Stressors relating to psychological adjustment were created from 5 conceptualized stressors: "Conflict with athletic identity", "Desire to live as an athlete", "Denial of past athletic life", "Regrets about sporting results", and "Conflict with athletic retirement". This psychological stressor, athletic identity conflict accounted for 69.0%, revealing that it is an important issue in Japanese female athletes not limited to top athletes. There was also stress relating to social adjustment of re-building relationships with people around the athletes. In addition, stresses relating to Financial and Occupational adjustment were identified and one of the stressors in this category was related to women in the society, namely the challenges of working as a woman in Japan.

Table 4.5 Results of the stressors at the athletic retirement

Answers	Subcategory	Conceptualized Stressors
Guilt about eating normally	Concerns about food (2)	Desire to live as an athlete (13)
Stress about food		
I don't like myself not being a hard worker anymore	Lack of the same amount of passion as in the athletic life (6)	
Conflict of wanting to feel passion about something		
My body shape has changed	Physical changes since the days as an athlete (2)	
Weight gained and physically weaker		
Unable to relieve stress by exercise	Lack of satisfaction with exercising (2)	
I can move my body but I can't move as well as		
Loneliness of not being with my team mates	No connection with team mates (1)	
I did not end my sport career with satisfactory results	Did not end with satisfying results (4)	Regrets about sport results (5)
I couldn't reach the level that I would be satisfied with a player		
People tell you great only if you competed in the Olympics	Not become an Olympic athlete (1)	
I wonder if I could have continued my sport a little longer	Feeling about continuing my sport (3)	Conflict with athletic retirement (8)
I think I escaped when I retired		
I noticed too late that I was able to cope with things earlier	Regrets looking back on athletic life (5)	
Regrets in various situations when I look back		
Not along with my coach at the retirement	Difficulty in communication with federation and coaches (2)	Relationship with close surroundings after retirement (8)
Not communicating well with my sport federation		
People ask me whether or not I'll marry and have children	Interference from people around (5)	
People around me dictate my future		
Feeling sorry for my parents	Feeling sorry for people around (1)	
I felt that all my hard work during my sport career was useless	Feeling lack of ability to use skills learned from sport (4)	Denial of past athletic life (8)
I can't use my skills that I learned in sport in any other places		
I didn't even watch my sport on TV because I wanted to leave my sport	Wanting to avoid involvement in my sport (3)	
I don't like my sport anymore		
I don't like my body size that matches my sport	Lack of confidence about body image (1)	
Pressure of being successful in both parenting and coaching	Difficulties in working as a woman (2)	Challenges of working as a woman in the society (3)
The movement of women into the workforce		
Male dominated in sports federations	Male dominated atmosphere in sports federations (1)	
I'm not good at expressing my thoughts well during coaching		Career development as a coach (5)
Irritation about the gap between myself as an athlete and as a coach		
I didn't have a career after retirement, so I wondered how to think about future employment.	Anxiety about employment/life (6)	Career plan after retirement (11)
Is there any other way to make a living besides coaching?		
Worrying about my future	Anxiety about future (5)	
I couldn't imagine my future		
I'm not confident when I feel no value in myself except being an athlete	Anxiety about myself outside of sports (3)	Conflict with athletic identity (26)
I worried what I should do because I was only doing my sport		
I feel embarrassed about my lack of social experience	Anxiety about adapting to society (6)	
Lack of peers and networks in other fields besides		
How should I spend the time I used for my competitive sport?	Anxiety about the lack of knowledge how to live outside of my sports world (12)	
I have no clue how to live after leaving my sport		
Emptiness	Lack of energy in life (5)	
Feeling I am losing all the things that I have been		

Table 4.6 Stressors categorized into adjustment types

Stressors	Labels	Adjustment types	%
Conflict with athletic identity	26	Psychological changes	69.0%
Desire to live as an athlete	13		
Denial of past athletic life	8		
Regrets about sport results	5		
Conflict with athletic retirement	8		
Relationship with surroundings after retirement	8	Social changes	9.2%
Career plan after retirement	11	Financial & Occupational changes	21.8%
Challenges of working as a woman in the society	3		
Career development as a coach	5		

4.4.4 DISCUSSION

The nine conceptualized stressors were aggregated by the KJ method, and each stressor was classified according to four types of adjustment: psychological, social, financial, and occupational changes. The results revealed that stressors relating to psychological adjustment accounted for 69.0% of coping-related needs. In the psychological adjustment, the stress, "Conflict with athletic identity" was especially important since it consisted of 26 labels, the greatest number of labels among all stressors.

Besides the stressor of "Conflict with athletic identity", several stressors related to the individual as an athlete were revealed in the stresses relating to psychological adjustment. The sense of desire to return to life as it was when I was an athlete (Desire to live as an athlete), and regrets about retirement were the examples. Furthermore, in social adjustment, it was found that people around athletes could be stressful. Originally, it was thought that they might become the athletes' social support, but they could be a cause of stress. This affected significant social support which is often an important way of coping with athletic retirement (Lavalley et al., 2014). Moreover, questions about marriage and childbirth by people around the athletes were stressful for female athletes. Finally, regarding occupational adjustment, the stress for women regarding working in the Japanese occupational environment was identified. These findings add detail to the existing models of retirement from sport (Lavalley et al., 2014).

4.4.5 LIMITATIONS AND FUTURE DIRECTIONS

In this section, 44 retired female athletes from 13 competitive sports completed an open-ended questionnaire. Through analysis by the KJ method, the stressors in retirement were found and conceptualized. However, since all the athletes who participated in this analysis were retired athletes, the stressors they felt immediately on retirement were described only by tracing their memories.

4.4.6 SECTION SUMMARY

This section aimed to investigate the types of stressors that Japanese female athletes experience at athletic retirement. 44 retired female athletes from 13 competitive sports completed an open-ended questionnaire. The KJ method was used to analyze stressors experienced at retirement. As a result, nine conceptualized stressors were found. The stressor related to psychological adjustment was 69.0%, the financial and occupational adjustment was 21.8%, and social adjustment was 9.2%. Further research needs to be done to develop the ideal support for athletes.

4.5 CHAPTER SUMMARY

The aim of this chapter has been to find out what kind of needs Olympic athletes have for their career support. To understand the needs of the athletes at retirement, this chapter investigated athletes' needs by each factor of the adaptation quality to athletic retirement in the conceptual model of adaptation to retirement (Lavallee et al., 2014), such as Causes of athletic retirement, Developmental experiences as one of the factors related to adaptation to retirement, and Available resources.

First, Japanese retired Olympic athletes registered in the Olympic Association of Japan (OAJ) were analyzed to find out for what kind of reasons they retired. Some of the most significant findings were: 1) the average lengths of the sports career until their first participation in the Olympic games was about 10 years, 2) the causes of career termination varied, such as: a) Summer Female Olympians (SFOs) tended to retire for psychological reasons—namely, either they were satisfied with their results or they no longer enjoyed participating in their sports, b) Winter Female Olympians (WFOs) retired because they lacked the money needed to continue, and c) Male Summer and Winter Olympians (SMOs & WMOs) retired to seek paid employment, and 3) WFOs required approximately twice the amount of money to continue their sports, compared with the other three categories.

Second, one retired female Olympic medalist was interviewed to analyze what kind of developmental experiences affected athletic retirement and the psychological difficulties after leaving sport. The analysis revealed that the developmental experiences during the athletic career affected the athlete's identity formation and loss of self-confidence (Lavallee et al., 2014).

Further, retired female athletes were analyzed regarding what kinds of stressors they had at their retirement. 44 retired female elite athletes from 13 competitive sports were asked an open-ended questionnaire. As a result, nine conceptualized stressors were

aggregated, such as "Conflict with athletic identity", "Desire to live as an athlete", and "Career plan after retirement". In order to match support to the stressors, each stressor was classified with the four types of adjustments: psychological, social, financial, and occupational (Stambulova & Samuel, 2019). It was revealed that stressors relating to psychological adjustment accounted for 69.0% of coping-related needs, Financial and occupational adjustment was 21.8%, and social adjustment was 9.2%. These findings add details to the existing models of retirement from sport.

Through the previous two chapters, it has been found that there are psychological difficulties, including having difficulty seeking help from others at retirement among female elite athletes. The existing career support in Japan provided occupational support for both current and retired Olympic athletes; however, other support, such as psychological support, was unclear due to the lack of psychological professionals in the support. Therefore, it is revealed that there was a gap between the existing career support in Japan and the needs of the athletes at their retirement.

In the next chapter, the gap is presented based on the previous findings, and a design for support to fill the gap is suggested.

5 PROPOSED PSYCHOLOGICAL SELF-HELP SUPPORT

In the previous chapters, the factors affecting the quality of adaptation to athletic retirement have been analyzed (Figure 5.1).

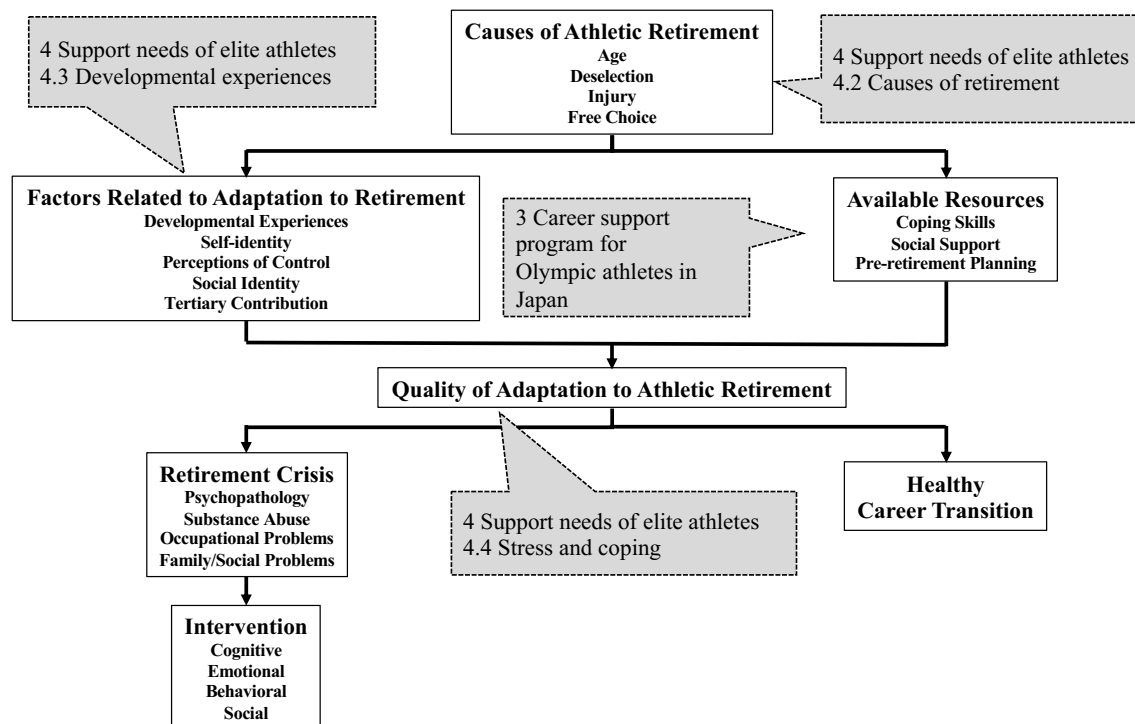


Figure 5.1 Investigation into the existing support and retired athletes using the conceptual model

This chapter gathers together the findings from the previous chapters regarding both the existing career support in Japan and the needs of retired elite female athletes after retirement. Then, through the findings, the gap between the existing support and the needs of the athletes is specified. As a result, this thesis designs psychological Self-Help support to fill the gap, and evaluates this support. To design the support, the process of systems engineering, which is a method aiming to solve a defined problem on the basis of

a requirement analysis of stakeholders, is utilized. In this thesis, the word "system" does not mean "an information system for processing data using a computer"; rather system is defined as "a combination of interacting elements organized to achieve one or more stated purposes" (Walden et al., 2015). The process to design the support is: 1) Define stakeholders' needs, 2) Define the requirements according to the stakeholders' needs, and 3) Design and evaluate the support.

5.1 DEFINE STAKEHOLDERS' NEEDS

5.1.1 STAKEHOLDERS

The central stakeholders in the support are athletes, and other possible stakeholders are those surrounding the athletes. To understand the current situation of retired athletes in the career support as described in the findings, the current situation of present athletes is first shown, based on a previous study (Japan Sport Council, 2014) (Figure 5.2). Then the current situation of retired athletes in the career support, described in the findings, is shown in Figure 5.3. As shown in Figure 5.2, previous studies reported that present athletes were closely surrounded by coaching staff, team members, families, and friends. In addition, since present athletes were registered in their sports organizations, they were supported by several career support providers, sponsors, companies, and schools, during their athletic lives. Then once they retired, different surroundings were added, such as company colleagues and media managers. Regarding organizational support, retired athletes had no support from International Federations (IFs), National Federations (NFs), or the Sports Agency once they were out of the sports organizations. However, retired athletes could be supported by the International Olympic Committee (IOC) since IOC provides career support in several forms for all Olympic athletes from all over the world (IOC, n.d.), and it has been found in this thesis that JOC has occupational career support for retired athletes. The result indicate that retired athletes can receive support from

organizations and close surroundings only if they ask for help; but they have difficulty seeking help from others.

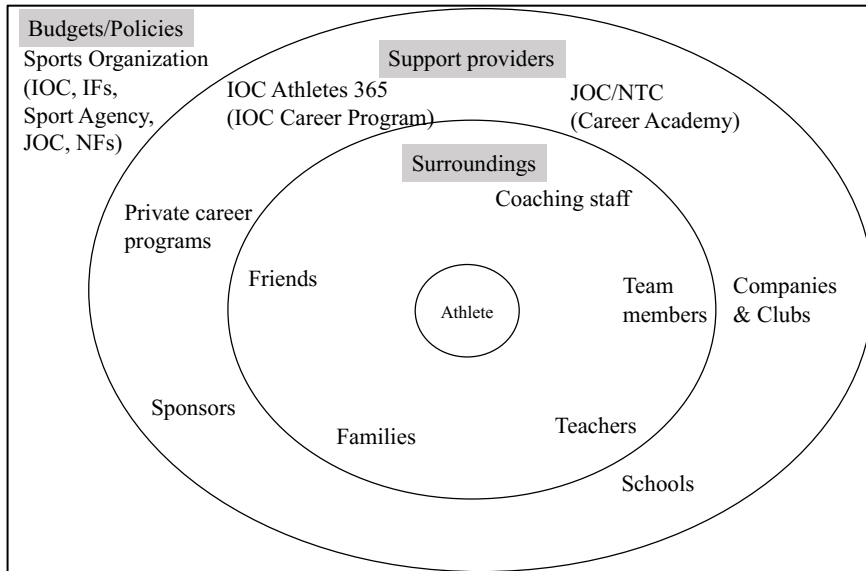


Figure 5.2 Career support stakeholders for present Japanese Olympic athletes (JSC, 2014)

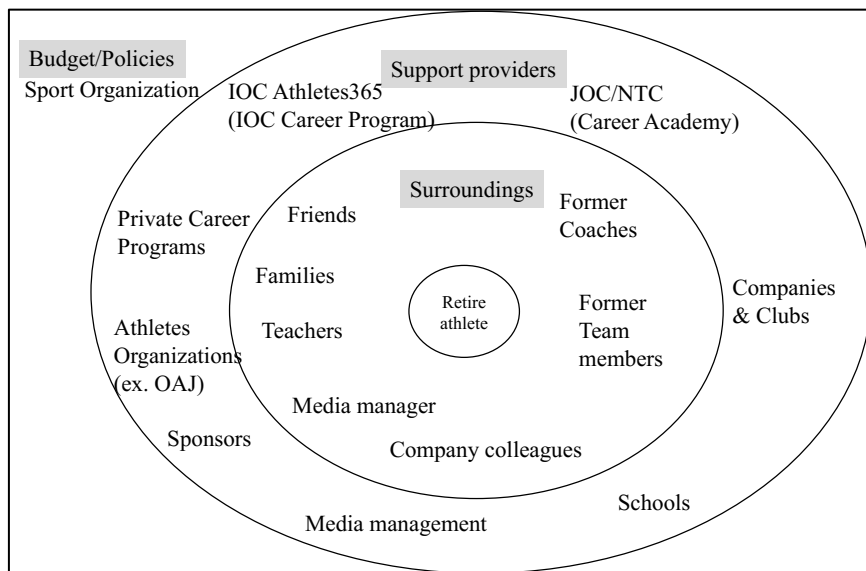


Figure 5.3 Career support stakeholders for retired Japanese Olympic athletes

5.1.2 DEFINING STAKEHOLDERS' NEEDS

In this thesis, two stakeholders are analyzed: JOC career support as a provider of support, defined as a customer; and retired athletes, as a user of the support provided. The main findings within JOC career support and retired athletes are presented in Table 5.1. The left parts (JOC career support, 1-4) are the findings from chapter 3 regarding the existing career support in Japan. In the right parts, the 1 in "Retired athlete" is the finding from chapter 4.2 regarding the needs of retired athletes, based on the causes of retirement. The 2 and 3 in "Retired athlete" are the findings from chapter 4.3 regarding the needs of the retired athletes based on developmental experiences. Then, the 3 and 4 in "Retired athlete" are the findings from chapter 4.4 regarding the needs of the retired athletes based on stressors at the retirement. As shown, various needs are found for the career support in Japan. From Table 5.1, needs relating to psychological adjustment difficulties support are specified in the Table 5.2 in light gray. It is found that there is a need to develop a counseling system within the needs of the JOC career support, and retired athletes also need psychological support through their developmental experiences and even after retirement; however, the extant research findings have proved that it is possible to provide support for all the needs.

Table 5.1 Needs of the JOC career support and retired athletes

	JOC Career Support	Retired Athlete
1	Need of budget to hire psychology professionals for support	Tailored career support depending on the different causes of athletic retirement for male/female and summer/winter is needed
2	Need of counseling system	Support depending on the athletes' developmental experiences with identity formation is needed
3	Need of effective promotion of the career support within JOC and NFs	Support for athletes having difficulty seeking help is needed
4	Need of career professionals in NFs	Support for coping strategies depending on retirement stresses is needed

Table 5.2 Needs of the psychological support in dark gray

	JOC Career Support	Retired Athlete
1	Need of budget to hire psychology professionals for support	Tailored career support depending on the different causes of athletic retirement for male/female and summer/winter is needed
2	Need of counseling system	Support depending on the athletes' developmental experiences with identity formation is needed
3	Need of effective promotion of the career support within JOC and NFs	Support for athletes having difficulty seeking help is needed
4	Need of career professionals in NFs	Support for coping strategies depending on retirement stresses is needed

Several extant studies on psychological support have proved that the following approaches have been effective for athletes. 1) Therapeutic approaches: Cognitive restructuring, stress management, emotional expression (Gordon, 1995; Ogilvie & Taylor, 1993; Taylor & Ogilvie, 1994), 2) Account-making in response to stress (Grove et al., 1997; Lavalley et al., 1997; Sparkes, 1998), 3) Mentoring approach (Danish et al., 1993; Jackson et al., 1998; Perna et al., 1996), and 4) Existential psychology approach (Ronkainen & Nesti, 2017). So the career support in Japan should develop such psychological support based on the extant research findings. However, a need has been shown in retired athletes, "Support for athletes having difficulty seeking help" (in dark gray in Table 5.2). The design of such support is the priority. Without designing such support, it will be difficult for athletes to obtain help even if the psychological support is developed. Therefore, from the findings of the chapters, the problem is defined as "retired elite athletes have difficulty seeking help even when the psychological difficulties exist". This chapter focuses on solving this problem.

5.1.3 HAVING DIFFICULTY SEEKING HELP

To understand the details of the problem defined, it should be explained from the findings exactly what "having difficulty seeking help" means. Through the life story analysis in Chapter 4.3 and the KJ method analysis in Chapter 4.4, the problem of "having difficulty seeking help" can be explained. The details are shown in Figure 5.4. In this analysis, 9 factors were found relating to having difficulty seeking help which are shown from S1 to S9: S1) People around me dictate my future (4.4), S2) Feeling sorry for my parents (4.4), S3) Not communicating well with my sports federation (4.4), S4) Not getting along with my coach at retirement (4.4), S5) I tried to fix it by myself (4.3), S6) I can't show my weaknesses to others; I was so alone (4.3), S7) Many people instructed me without me asking for instruction (4.3), S8) I shouldn't show my feelings (4.3), and S9) Even if I tell them, no one understands (4.3). Another three factors (i.e., "Because I have pride as an elite athlete", "Because I was always helped before I asked, I didn't ask", and "Because no one in the world (outside of sport) is working so hard") were the athlete (P)'s thoughts on the reason why P experienced difficulties.

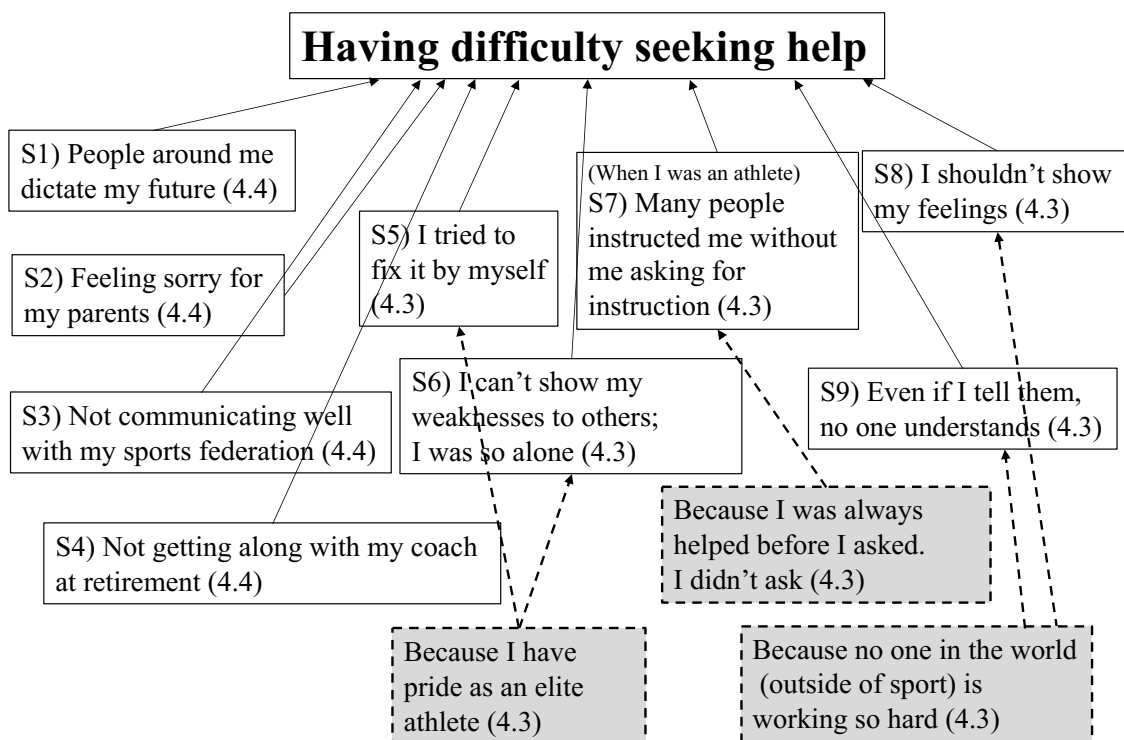


Figure 5.4 Having difficulty seeking help

Based on Figure 5.4, it is assumed that:

- 1) Retired athletes had difficulties in talking about their own psychological difficulties when they did not feel they had good relationships with those around them in their athletic careers, from the findings in Chapter 4.4 (S1, S2, S3, S4);
- 2) When the athlete P had pride as an elite athlete, she was not able to show her weaknesses, so P wanted to solve her problems on her own (S5, S6);
- 3) When P did not feel that her psychological difficulties would be understood by the new surroundings outside of sport, P was not able to show her feelings to those around her (S8, S9);
- 4) Because P was used to being helped by others during her athletic career without asking, P did not know how to ask anyone for help (S7).

To enable athletes to seek help, what kind of support should be designed? To clarify this, the current situation of the career support in Japan is explained with a causal loop (Figure 5.5).

5.1.4 THE CURRENT SITUATION OF CAREER SUPPORT IN JAPAN

The current situation of the support in Japan is explained by using a causal loop (Figure 5.5). The current situation was that occupational support was provided by the occupational support professionals. Because of the existing occupational support, the cases of occupational support increased with the sponsor's support. Because the cases of the occupational support increased, the number of athletes accessing occupational support also increased. However, because there were only occupational support professionals in the JOC support (not psychological support professionals), even when athletes came forward for psychological support, JOC career support was only able to provide consultation for athletes by staff without training in psychological support. Therefore, it can be assumed that the staff had limitations in providing for athletes with psychological difficulties. As a result, there might have been some misunderstanding about psychological support. This might be considered to hinder any increase in provision of psychological support.

It would be ideal to have psychological support professionals along with occupational support professionals. However, even if psychological support were developed in the existing career support, it might still be difficult for athletes who have difficulty seeking help to access the support. At the same time, the findings also revealed that there were athletes who wanted to fix their problems on their own. So what kind of support should be designed to enable athletes either to seek help or find solutions themselves if they want? It was hypothesized that developing psychological Self-Help support would make it easier for them to seek help by identifying what kind of psychological difficulties athletes may have at their retirement and understanding what

athletes' career support is. This hypothesis was based on the extant studies regarding mental health literacy in elite athletes (Bu et al., 2020; Gorczynski et al., 2021; Henriksen et al., 2020).

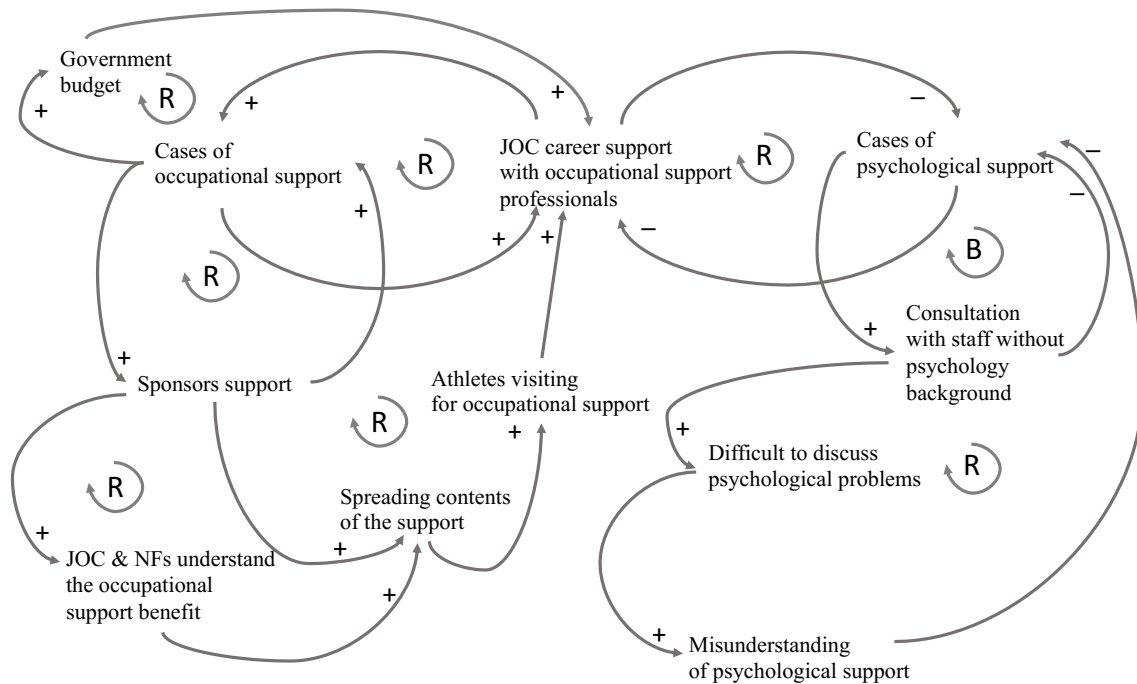


Figure 5.5 Current situation of career support in Japan

5.2 REQUIREMENT DEFINITION FROM THE STAKEHOLDERS NEEDS

5.2.1 APPLICATION OF MENTAL HEALTH LITERACY IN ELITE ATHLETES

To design the psychological Self-Help support, the concept of mental health literacy (MHL) in elite athletes (Bu et al., 2020; Gorczynski et al., 2021; Henriksen et al., 2020) was applied. The definition of mental health was updated by the World Health Organization (WHO) in 2018 as "a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and

is able to make a contribution to her or his community" (WHO, 2018). Mental health is a core component of a culture of excellence in elite sports and athletes' mental health is a major resource for the whole athletic career and life post-athletic career (Henriksen et al., 2020). MHL is defined as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention. Mental health literacy includes the ability to recognize specific disorders; knowing how to seek mental health information; knowledge of risk factors and causes, of self-treatments, and of professional help available; and attitudes that promote recognition and appropriate help-seeking" (Jorm et al., 1997). The concept of mental health literacy was derived from health literacy, which aims to increase patient knowledge about physical health, illnesses, and treatments. MHL is recognized as a major factor in whether athletes seek help when they experience mental health difficulties (Bu et al., 2020). Breslin et al. (2018) showed that enhanced MHL can contribute to help-seeking. However, another research showed that some athletes prefer to deal with mental health issues through self-reliance (Shi et al., 2020). Therefore, the requirements of the stakeholders' needs are defined through the application of the literature regarding the concept of MHL in elite athletes (Table 5.3).

Table 5.3 Requirement definition for psychological Self-Help support

#	Requirements	Contents
R1	The support shall explain what is athletes career support (S3, S4)	-Definition of career support -Examples of athletes' support cases
R2	The support shall present types of difficulties at the retirement (S1, S2, S3, S4, S5, S6, S7, S8, S9)	-Presenting types of difficulties at the retirement
R3	The support shall explain how to identify own psychological difficulties (S5)	Explanation of -Causes of retirement -Developmental experiences -Career planning

5.2.2 CONTENTS OF THE SUPPORT

The contents of the support cover three requirements (Table 5.3): R1: The support shall explain what athletes' career support is (S3, S4), R2: The support shall present types of difficulties at retirement (S1, S2, S3, S4, S5, S6, S7, S8, S9); and R3: The support shall explain how to identify one's psychological difficulties (S5). R1 contains "Definition of career support" and "Examples of athletes' support cases" to enable athletes to understand about athletes' career support through specific examples of support cases. R2 contains "Presenting types of difficulties at retirement" to enable athletes to understand about types of difficulties at retirement based on the findings of this thesis. R3 contains explanations of "causes of retirement", "developmental experiences", and "career planning" to enable athletes to understand how to identify any psychological difficulties at retirement. It would be ideal if athletes could access this psychological Self-Help support online, as a previous study recommended that self-help interventions might be a less threatening first step towards encouraging retiring and retired athletes to engage with support and seek help, especially if delivered online (Cunningham et al., 2014).

5.3 DESIGN OF PSYCHOLOGICAL SELF-HELP SUPPORT

Based on the definition of the requirements, the psychological Self-Help support is presented in Table 5.4. At retirement, if athletes have difficulty seeking help regarding their psychological difficulties, they can access the Self-Help support. Through the support, they learn three factors as shown in Table 5.4. After the psychological Self-Help support, they can understand that athletes' career support is a holistic approach, including psychological support and it is usual to have psychological difficulties in transition at retirement. Therefore, they can seek help easily if they need it. This support prototype is demonstrated with retired athletes for verification of the effectiveness.

Table 5.5 and Table 5.6 show the comparison between the current situation of retired elite athletes who have difficulty seeking help and those who use the support. In addition,

Figure 5.6. and Figure 5.7 show the comparison between the current situation "AS IS", and the ideal situation "TO BE" with the Self-Help support. Even though retired elite athletes are surrounded by people who can help them, athletes who have difficulty seeking help cannot talk to them. When there is psychological Self-Help support, as shown "TO BE", athletes can learn three factors so that they can either seek help more easily or solve problems by themselves.

Table 5.4 Design of psychological Self-Help support

#	Requirements	Contents	Content items
R1	The support shall explain what athletes' career support is (S3, S4)	R1.1 Definition of career support	R1.1.1 What is career support for athletes? R1.1.1.1 What is "career"? R1.1.1.2 What is "athlete's career"? R1.1.1.3 What is "athlete career support"? R1.1.1.4 What is "career transition support"? R1.1.1.5 What kind of experts are available to help?
		R1.2 Examples of athletes' support cases	R1.2.1 What is holistic approach? R1.2.2 What are the difficulties?
R2	The support shall present types of difficulties at retirement (S1, S2, S3, S4, S5, S6, S7, S8, S9)	R2.1 Presenting types of difficulties at retirement	R2.1.1 Examples of psychological difficulties at retirement R2.1.2 What is "having difficulty seeking help in elite athletes"? R2.1.3 What kind of psychological difficulties did you have?
R3	The support shall explain how to identify one's own psychological difficulties (S5)	R3.1 Explanation of causes of retirement	R3.1.1 What is your real causes of retirement?
		R3.2 Explanation of developmental experiences	R3.2.1 How do you deal with your athletic identity??
		R3.3 Explanation of career planning	R3.3.1 How did you prepare for your retirement?

Table 5.5 Current situation of “Having difficulty seeking help” (AS IS)

AS IS	After retirement
1	I have difficulty seeking help for my psychological difficulties.
2	I can't tell people around me about my psychological difficulties because I can't show my weaknesses.
3	I don't know (misunderstand) about what career support is. So that I don't visit the support for psychological difficulties. I try to fix it by myself without knowledge of how to fix it.
4	I don't know about types of psychological difficulties in elite athletes. So that I feel alone and difficult to show my psychological difficulties.
5	I don't know how to identify my psychological difficulties. So that I don't know why I have this kind of difficulties and I think I am mentally weak. I can't show my weaknesses to others.
6	I have difficulty seeking help for my psychological difficulties.

Table 5.6 Ideal situation of “Having difficulty seeking help” (TO BE)

TO BE	After retirement
1	I have difficulty seeking help for my psychological difficulties.
2	I access psychological Self-Help support.
3	I learn what career support is. So that I understand about career support for psychological difficulties.
4	I learn about types of psychological difficulties in elite athletes. So that I understand there are psychological difficulties as an elite athlete
5	I learn how to identify my psychological difficulties with the conceptual model. So that I understand why I have psychological difficulties.
6	I have less difficulty seeking help for my psychological difficulties.

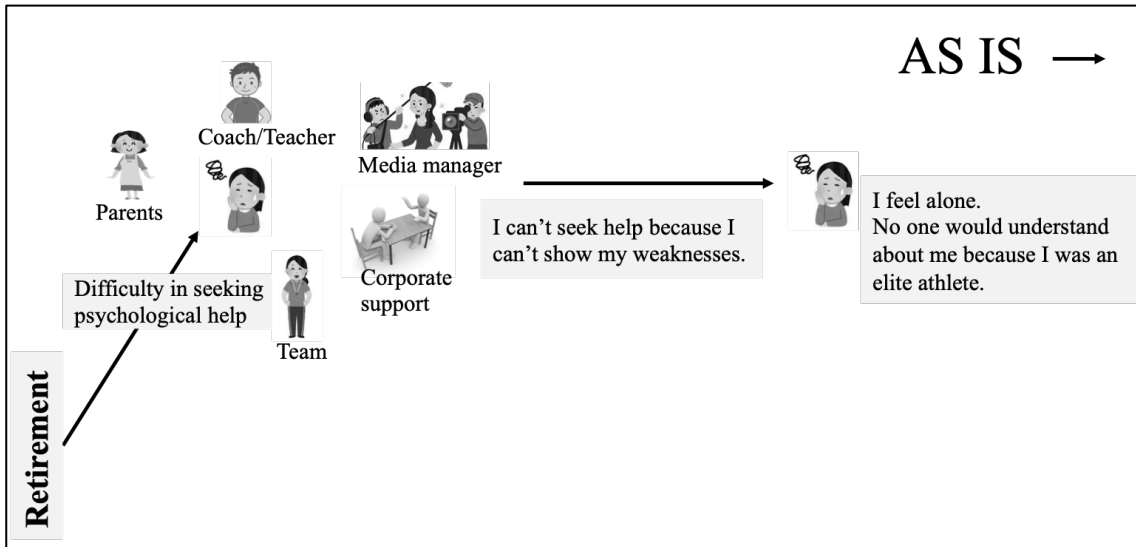


Figure 5.6 Current situation of “Having difficulty seeking help” (AS IS)

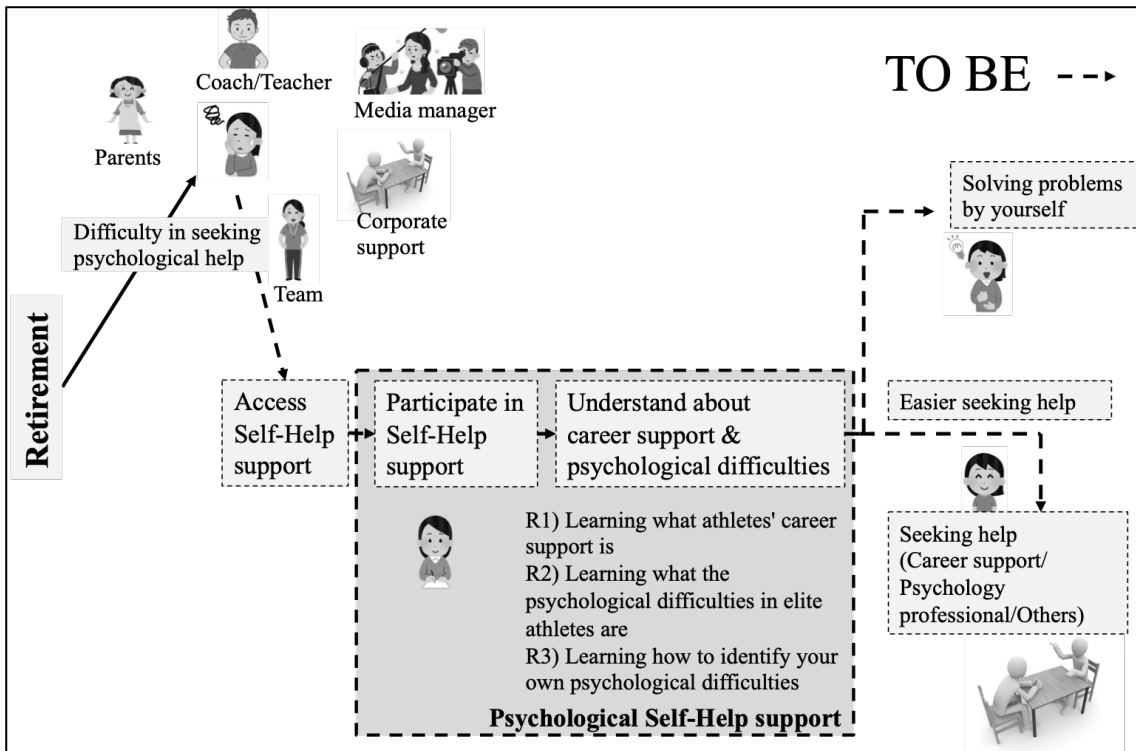


Figure 5.7 Ideal situation of “Having difficulty seeking help” (TO BE)

5.4 EVALUATION OF THE PSYCHOLOGICAL SELF-HELP SUPPORT

5.4.1 PURPOSE

The purpose of this study was to evaluate the effectiveness of a prototype psychological Self-Help support for retired Olympic athletes.

5.4.2 METHOD

The support designed was demonstrated in a workshop style. Since it was designed to be self-help as an online app, the workshop was attended by participants without their faces or names being visible, and the participants were required to listen to the contents and input their answers each time as if they were experiencing the app.

Contents of the workshop

The workshop contents were derived from the support designed. The main contents were: 1) Learning what athletes' career support is, 2) Learning what psychological difficulties are experienced by elite athletes in Japan, and 3) Learning how to identify one's own psychological difficulties. The duration of the workshop was about one-and-a-half hours. The participants listened to the facilitator explain the contents of each item and did a fill-in-the-blanks quiz to see if they had understood what they had heard. The contents of the workshop are in appendix B.

Procedure of participants' recruitment

Participants were recruited by snowball sampling from retired Japanese female Olympic athletes from the 1996 Atlanta Olympic Games to the 2016 Rio de Janeiro Olympic Games in Swimming and Artistic swimming.

Evaluation of the effectiveness of the workshop

The effectiveness of the workshop was evaluated in the pre- and post-questionnaires of the workshop. The participants were asked to answer the same questions prior to the workshop (pre-test), and after the workshop (post-test) to evaluate the effectiveness. The first part of the test comprised eight questions on general knowledge about athletes' career support and psychological difficulties at retirement. These questions were to be answered 'true' or 'false'. The second part of the test was about attitude regarding how easy it was to seek professional psychological help. This question was to be answered in degrees from 1 (not easy) through 7 (easy). The effects of the workshop were evaluated by comparing proportions of the answers to the questions in the post-test with the proportions in the pre-test. The effectiveness of the workshop was also evaluated by the change in degree of ease in seeking help after the workshop. The originality of this workshop is that it is anonymous, can be done alone, and there is no interference from anyone. The procedure of the workshop and pre-/post-questionnaires are shown in Figure 5.8.

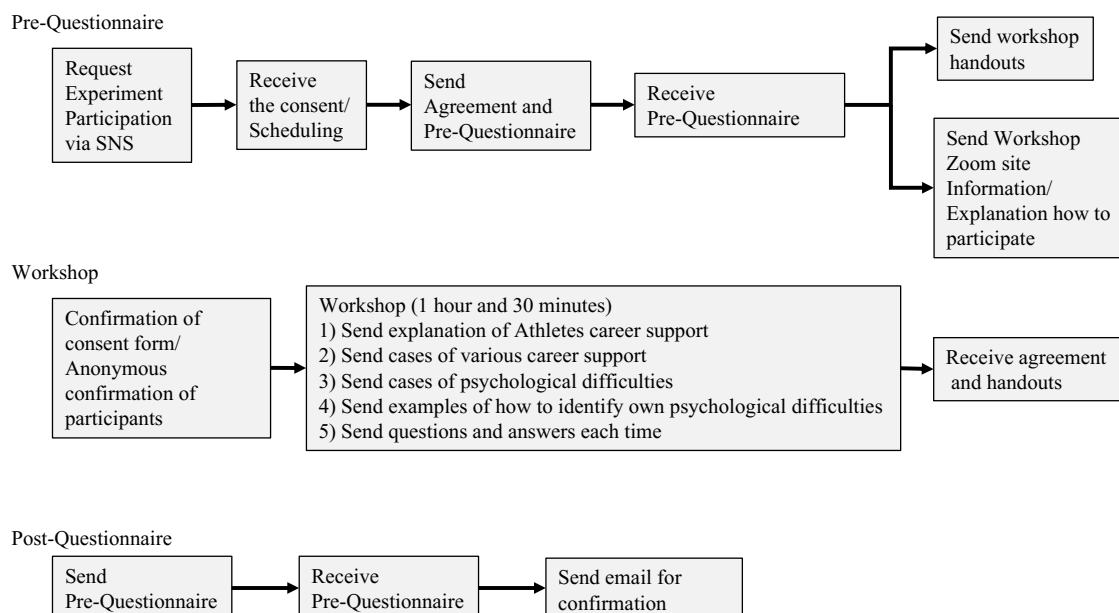


Figure 5.8 The procedure of the workshop and pre-/post- questionnaires

Data analysis

Non-parametric paired-samples tests (Wilcoxon signed-rank test and McNemar's test) were conducted, considering the distribution of the data, to examine whether the knowledge of career support was significantly changed between pre- and post-tests. Parametric paired-samples tests (Paired t-tests) were used to examine changes in attitudes towards seeking help between pre- and post-tests. The level of significance was set at $P < 0.05$ (two-sided). Statistical analyses were conducted using Stata/SE 15.1, StataCorp LLC, College Station, TX, USA.

5.4.3 RESULT

Participants and workshop schedule

Retired Japanese female Olympic athletes (24 retired Japanese female Olympic athletes from the 1996 Atlanta Olympic Games to the 2016 Rio de Janeiro Olympic Games in Swimming and Artistic swimming) participated fully in the study. None of them withdrew during the study and all completed the pre-, and post-tests for the verification of the workshop. The participants were given an explanation about the informed consent, and consent was obtained. The age of the participants at study (Figure 5.9), Types of sport discipline (Figure 5.10), Last participation in the Olympics (Figure 5.11), Year of retirement (Figure 5.12), and Best result (Figure 5.13) of the participants are shown. A total of four workshops were held, one in the evening of October 2, 2021, one in the morning of October 6, 2021, and two in the evening of October 7, 2021, according to the available schedules of the participants.

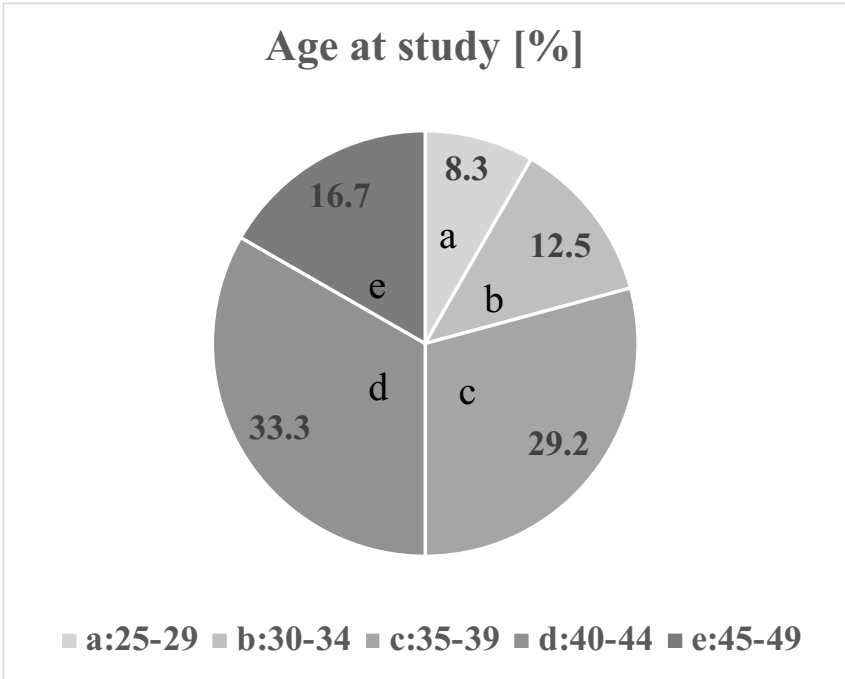


Figure 5.9 Age at study

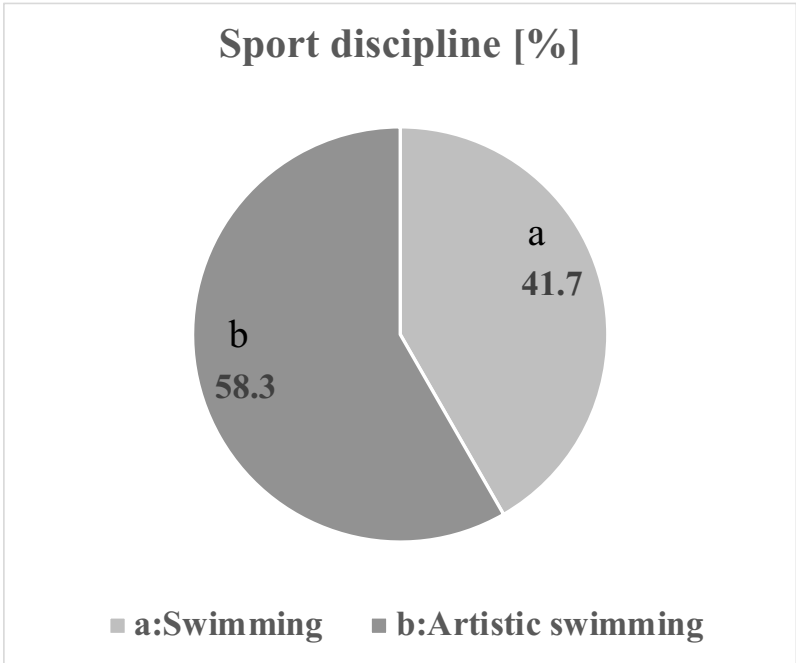


Figure 5.10 Sport discipline

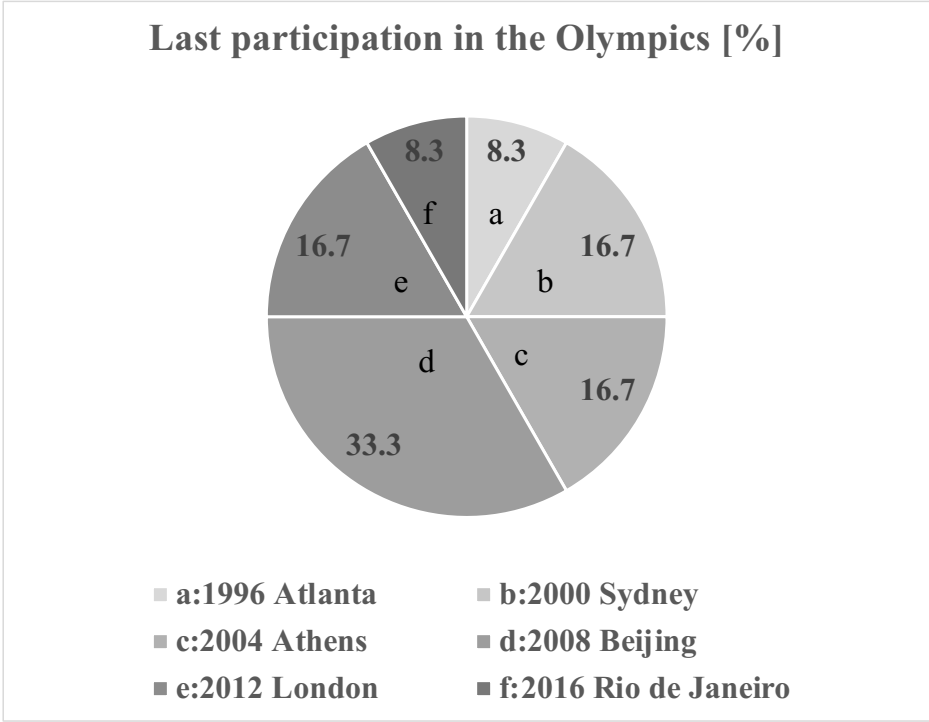


Figure 5.11 Last participation in the Olympics

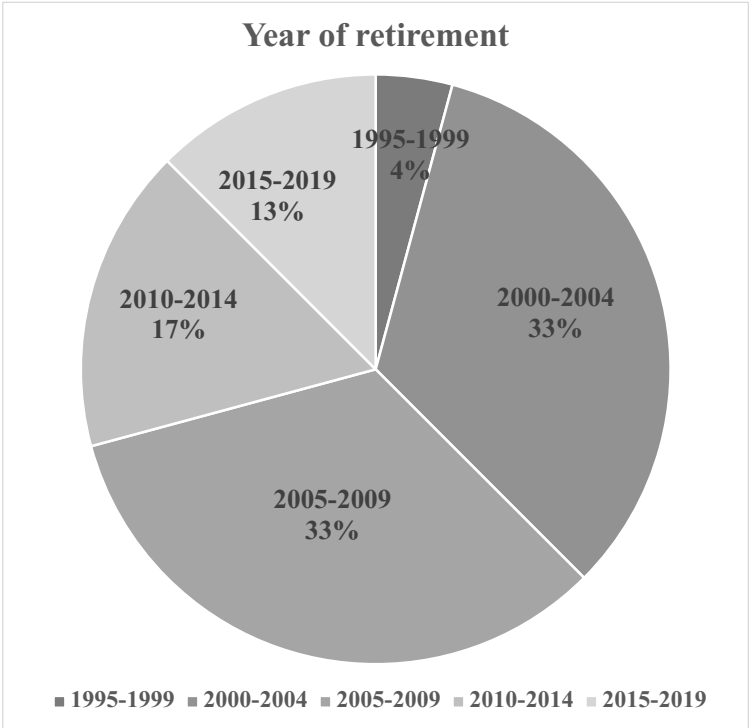


Figure 5.12 Year of retirement

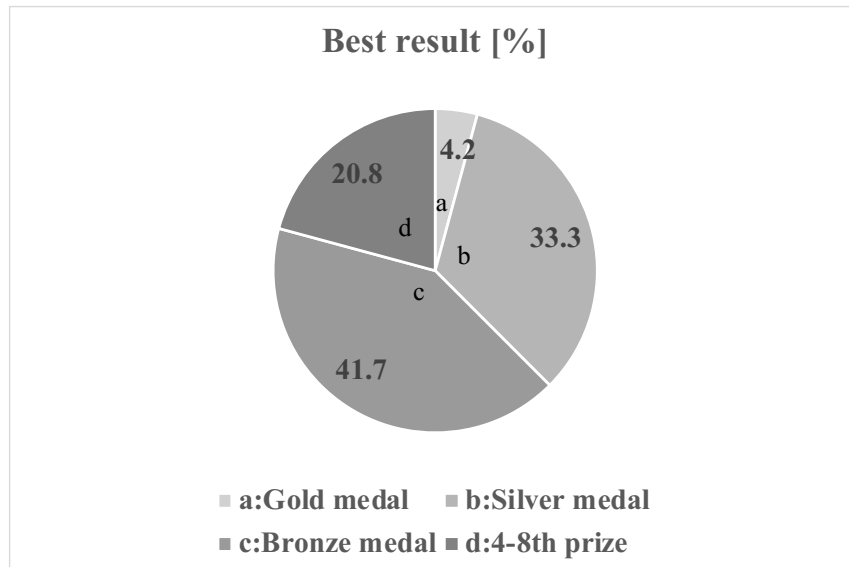


Figure 5.13 Best result

Effects on knowledge of the athletes support and psychological difficulties

The proportions of correct answers to the eight questions on general knowledge about athletes' career support and psychological difficulties at retirement were significantly elevated after the workshop, with a median number of correct answers of 6.0/8.0 in the post-test, compared with 3.0/8.0 in the pre-test ($P < 0.001$). The proportions of correct answers to each question were elevated in the post-test compared with the pre-test for all questions as shown in Table 5.7. Prior to the workshop, none of the participants knew that the career support after retiring from sport was not called second career support, which was career transition support (0%). Few participants knew about the significance of feelings of struggling with the transition at the athletic retirement (4.2%), the unique psychological difficulties among elite athletes on retiring (8.3%), or that psychological support is not telling athletes which direction their lives should take,

but rather thinking together to find direction (8.3%). In contrast, half of the participants knew that psychological support is to help athletes not to be troubled (54.2%), and that athletes can consult a psychologist even when they are not troubled (50%). Moreover, most knew that psychological support after retirement is not only for athletes with mental problems (83.3%).

Table 5.7 Proportions of correct answers on knowledge about athletes' career support (n = 24)

		Proportions % (n) of correct responses		
		Pre_test	Post_test	Stats
It's important to reduce the number of athletes struggling with life after retirement.	F	4.2 (1)	16.7 (4)	$\chi^2 = 3.00, p = 0.08$
It's better to think about retirement after you retire so you can focus on sport.	F	45.8 (11)	87.5 (21)**	$\chi^2 = 8.33, p = 0.00$
After retiring from sport, elite athletes who have immersed themselves in sport have unique psychological difficulties.	T	8.3 (2)	95.8 (23)**	$\chi^2 = 8.00, p = 0.00$
The term "second career support" refers to career support after retiring from sport.	F	0 (0)	95.8 (23)***	$\chi^2 = 23.00, p = 0.00$
Athletes who need psychological support after retirement are those with mental problems.	F	83.3 (20)	87.5 (21)	$\chi^2 = 0.20, p = 0.65$
Psychological support tells you which direction your life should take.	F	8.3 (2)	37.5 (9)*	$\chi^2 = 5.44, p = 0.02$
Psychological support is to help athletes not to be troubled.	F	54.2 (13)	75 (18)	$\chi^2 = 2.27, p = 0.13$
Athletes only visit a psychologist when they feel psychologically troubled.	F	50 (12)	83.3 (20)*	$\chi^2 = 6.40, p = 0.01$
Total score, Mean (SD), Median		3.08 (1.38) 3.0	5.79 (1.28)*** 6.0***	$t = -7.45, df = 23, p = 0.00$ $z = -4.30, p = 0.00$
*P < 0.05, **P < 0.01, ***P < 0.001 (comparison of post-test and follow-up test with pre-test). df = degrees of freedom, F, false; T, true.				

Attitude to seeking help with career and life

In the responses to the question, "Is it easy for you to go to a psychologist for help with your career or life?", the degree of the ease significantly increased ($P=0.0023$) after the workshop (Table 5.8).

Table 5.8 The degree of difficulty with seeking professional help

Is it easy for you to go to a psychologist for help with your career or life? Please choose the degree from 1 (not easy) - 7 (easy).	
	Mean (SD)
Pre-	3.33 (1.69)
Post-	4.38 (1.84)
$t = -3.43, df = 23, p = 0.0023$	

Table 5.9 also shows the pre- and post-workshop results for the question, "Why is it not easy to seek professional help?" from the participants who answered 1 to 3 (not easy) out of 1 to 7 degrees for the question in Table 5.8. The belief of being able to solve problems on one's own decreased from 2 to 0, and the difficulty with how or what to ask psychology professionals also decreased from 13 to 6.

Table 5.9 The changes in the reasons for difficulty in seeking help

If you chose 1-3 above, please tell us why it is not easy. (Multiple answers are acceptable)	Pre	Post
Because I think I can solve my career and life problems on my own.	2	0
I don't want others to see my weaknesses.	2	2
Because I don't know how or what to ask.	13	6

Table 5.10 (Pre-) and Table 5.11 (Post-) show all the answers by those in other categories to the question, "Why is it not easy to seek professional help?"

Table 5.10 Answers from those in other categories (Pre-)

others (pre-)
I don't know where to find an expert; I don't know what a psychologist is.
Because I have other things to do and it gets put on the back burner.
Because I always make decisions through discussions with my family, and I don't know if there is a specialist nearby.
I don't know where I can have a consultation [with a psychologist].
I don't have anyone close to me that I can ask for help, and I don't have the time.
Because I don't have a chance to come in contact with them.
If you're struggling and can't come up with an answer, you can ask for help.
It's hard to go to see a psychology-related doctor because it affects medical insurance and other screening procedures. I don't know of any facilities that only offer counseling and have nothing to do with independent medical care.

Prior to the workshop, the main answers regarding the reasons why it is not easy to seek professional help were that they did not have time to do so, they did not know where to go, and they did not know who or what psychology professionals were. After the workshop, there were still answers that they did not have time and they did not know where to go, but some answered that they wanted to talk and to find where to obtain help.

Table 5.11 Answers from those in other categories (Post)

others (post-)
Because I don't have the time and I feel like I don't really need it right now.
Because there is no such environment.
No way to know where they are or who the experts are.
I would like to consult or rather talk to them, but I don't know where to go. Is there one in the rural areas?
It's not easy, but I think it's important to talk to someone about it.
I'm not comfortable asking for help. I am not familiar with it yet, but I would like to change this.
There is nothing to consult anyone about.
It's a small world, and if any information were to leak out, the people involved would have something to say.
I don't know where to go.

5.4.4DISCUSSION

The psychological Self-Help support for retired Olympic athletes demonstrated in a workshop style with 24 retired Japanese female Olympic athletes was evaluated for effectiveness and significant effects were found. It was evaluated through the pre- and post-questionnaires of the workshop by the proportions of correct answers and the change in the degree to which participants were likely to seek help after the workshop. The proportions of correct answers to the eight questions on general knowledge about athletes' career support and psychological difficulties at retirement were significantly elevated after the workshop, and the attitude to seeking professional help with psychological difficulties with career and life also increased. The results support the findings of previous studies that increasing literacy helps athletes seek professional help (Breslin et al., 2018, Bu et al., 2020).

The originality of this workshop was that the contents were derived from the requirement analysis of the retired elite athletes' needs, and it was anonymous, done alone, and there was no interference from anyone. The results of the study support the findings of a previous study (Cunningham et al., 2014) that self-help interventions might be a first step in encouraging retired athletes to engage with seeking help, especially if delivered online. In previous studies and practical examples, athletes' career programs for retired athletes have been conducted by various NOCs. In addition, the IOC has developed online education programs for mental health literacy for retired Olympic athletes around the world. However, there is no self-help support in the studies. No practices have been identified so far that can deepen the understanding of what career support is and what psychological difficulties are, while introducing psychological difficulties at retirement specific to athletic characteristics in order to facilitate access to seek professional help.

The psychological Self-Help support, however, has some issues to be solved. This study reveals that the participants still had difficulty knowing how to find psychology professionals, even if they wanted to seek help from a professional. Since the Japanese athletes' career program does not provide psychological support for retired Olympic athletes, psychological Self-Help support should be added to the information for athletes in Japan on where to find psychology professionals.

Several limitations may be noted in the present study. First, the number of participants was small because participation in the workshop was requested only of Olympic medalists in Swimming and Olympic athletes in Artistic swimming. Generalization of the present results should therefore be with caution. Second, the effectiveness of the workshop was verified without a control group, considering the feasibility of having medalists participate. Third, the effectiveness of the workshop was verified through self-report questionnaires. It should be noted that this may affect the potential social desirability bias. Finally, the support was designed essentially as an

online application that anyone can access. The support will need further improvements, with the goal of being able to implement it as an application in the future.

5.5 CHAPTER SUMMARY

The aim of this chapter was to verify the designed psychological Self-Help support based on the findings from the previous chapters regarding both the existing career support in Japan and the needs of elite female athletes after retirement. To design the support, the process of systems engineering was utilized. The problem was defined as "Retired elite athletes have difficulty seeking help even when the psychological difficulties exist". To solve the problem, the concept of mental health literacy was applied to the contents of the support. The psychological Self-Help support, demonstrated in a workshop style with 24 retired female Olympic athletes, was verified for effectiveness, and significant effects were found. It was verified through the pre- and post-questionnaires of the workshop by the proportions of correct answers and the change in the degree to which participants were likely to seek for help after the workshop. The psychological Self-Help support designed is considered to fill the gap between the existing support and the needs of the athletes.

6 DISCUSSION

Based on extant research, in chapters 1 and 2, the following issues for investigation were identified.

1) The nine pillars of sports policy factors (Figure 1.1) include career support as pillar five. However, the Japanese framework does not include career support (Kinugasa et al., 2019), and it is unclear why this has not been incorporated in the framework.

2) Career support programs for elite athletes have been developed in many countries based on athletes' needs. However, research evaluating the programs is scarce (Stambulova & Ryba, 2013).

3) Retired elite athletes have psychological difficulties after retirement. Yet they have difficulty in seeking help. It has not yet been adequately investigated what kind of support is needed to assist these athletes.

4) The conceptual model of adaptation to retirement by Lavallee et al. (2014) (Figure 1.4) explained that the psychological difficulties in adjustment to athletic retirement were influenced by three interrelated factors (causes of athletic retirement, developmental experiences related to the adaptation process, and available resources). The model has been suggested to be able to assist organizations in developing an effective support system once specific retirement difficulties are demonstrated, and appropriate psychological support can be recommended. At the present time, however, there has been very little research conducted on the needs of retiring and retired athletes or the system requirements to help them make an optimal transition.

Therefore, the objective of this thesis has been to investigate what kind of support is needed with psychological difficulties among retired elite athletes who are no longer in sports organizations. To achieve this objective, chapters 3 and 4 of the thesis have demonstrated the process of clarifying the psychological difficulties of retired Olympic athletes through the conceptual model of retirement from sport. Based on findings from Japanese career support and Japanese retired Olympic athletes, in chapter 5 of the thesis, psychological Self-Help support has been designed, using the concept of mental health literacy.

The findings in chapter 3, regarding the existing career support for Olympic athletes in Japan, called the Japanese Career Academy (JCA), are that JCA provides occupational support for present and retired athletes, but not psychological support due to a lack of psychology professionals. Moreover, the support system is not systematized, and is not multifaceted support as recommended in the holistic athletic career (HAC) model (Figure 1.2). Wylleman (2019a) pointed out with the model that support services should be provided in an interdisciplinary way, including psychologists, medical doctors, physiotherapists, strength and condition experts, nutritionists, academic and vocational support professionals, and financial experts. Since JCA has a shortage of staff competency to meet the needs of athletes, "counseling by non-professionals" is undertaken. For example, because there are only occupational support professionals (not psychological support professionals) in JCA, even when athletes come for psychological support, JCA provides consultations for athletes by staff without psychological support training. Therefore, it can be assumed that the staff have the limitations in advising athletes with psychological difficulties. As a result, there might be some misunderstanding of psychological support. This might be considered to hinder increasing cases of psychological support even though athletes have psychological difficulties and come for help. This has been explained in chapter 5 with a causal loop

(Figure 5.5). Therefore, appropriate professionals should be involved in the support services in the future.

In chapter 4, an analysis of the support needs of elite athletes after athletic retirement has been conducted. From the findings of three studies, the following are revealed:

1) A quantitative study (in chapter 4.2) with 472 retired Olympic athletes (Male/Female and Summer/Winter) reveals that female summer Olympic athletes tended to retire for psychological reasons, female winter Olympic athletes retired because they lacked the money needed to continue their sports, and male summer and winter Olympic athletes retired to seek paid employment.

2) In a qualitative study (in chapter 4.3) with one retired Olympic medalist analyzed through the life story analysis method, the relationship between her developmental experiences and the adaptation process to athletic retirement has been investigated. The analysis reveals that the developmental experiences during the athletic career affected the athlete's identity formation and loss of self-confidence. It is also found that she had difficulty in seeking help from those around her even when she had psychological difficulties during the transition after retirement.

3) From the analysis of a study with 44 retired female elite athletes from 13 competitive sports, the types of stress at athletic retirement have been revealed. There were stresses related to athletic identity and related to difficulty in talking about themselves to those around them.

The findings reveal that even athletes who retired for psychological reasons, retired athletes had psychological difficulties after retirement, and retired athletes had difficulty in seeking help. Although psychological support would help athletes with the psychological adjustment difficulties, it is difficult for them to obtain the support, not only because of their difficulty in seeking help, but also because they are no longer in sports organizations. So even if JCA started psychological support, it would still be

difficult for retired athletes to receive help unless support was developed for retired athletes no longer in organizations.

One of the findings of the study on JCA in chapter 3 points out the issue of the budget for hiring psychology professionals. The study also reveals that the importance of career support has not been fully understood by the Japanese Olympic Committee (JOC), and it has been difficult to design career support programs based on scientific evidence. In such conditions, it is assumed that the importance of career support based on scientific evidence, such as through the conceptual model of adaptation to retirement and the HAC model, should be made more widely known to obtain an adequate budget. This thesis is a step in this direction. It will be important to investigate scientifically the career support program and to clarify the relevant issues in the future.

Meanwhile, given the lack of psychological career support by psychology professionals in the current situation in Japan, this thesis undertook the challenge of designing psychological support based on the findings about athletes' needs. Some previous research suggested self-help intervention online would be useful for athletes having difficulty seeking help. To the best of the author's knowledge, there has been no research that has actually designed such a support program. Therefore, the thesis has designed tailored psychological Self-Help support to fill the gap between the current support and the needs.

To design and evaluate the support, the process of systems engineering was utilized. The problem was defined as "retired elite athletes have difficulty seeking help even when psychological difficulties exist", and the concept of mental health literacy was applied in the contents of the support. Through a feasibility study of the support, the support was found to have significant effects. The results support findings of previous studies that increasing literacy helps athletes to seek professional help (Breslin et al., 2018, Bu et al., 2020).

An evaluation of the support designed, which was conducted in an online invisible workshop style, showed that the support was able to correct some important misconceptions of the participants, who were 24 retired female Olympic athletes, including one gold, eight silver, and ten bronze medalists in swimming and artistic swimming. Prior to the workshop, all the participants understood Japanese career support for retired athletes to be "second career support". It was not second career support, but "career transition support", defined on the basis of previous research and practical examples from other countries. However, at present, the term, "second career", is often used in general in Japan. The findings of chapter 3 reveal the process of how the career support in Japan was formed. Even though JOC started development of career support in Japan at the beginning of 2000 as "career transition support", the name of "second career" became more often used, as the career support in Japan focused on the occupational support. It is assumed that the image evoked by the name influences people's understanding of the career support. As the term "second career" is widespread, it is questionable what kinds of images athletes might have of the contents of the support. Is the athletic career seen as first and any career after retirement second? Then what is the definition of "career" in the first place? Since various previous research highlighted the importance of career transition support both during the athletic career and at retirement, this research evidence should be disseminated to providers of career support in Japan.

Another important issue for the participants was lack of knowledge about where to find psychology professionals in Japan. Even after the participants understood the meaning of career support and changed their attitudes to seeking help, the difficulty of where to find professionals remained. In Japan, there is a certification system of sport psychology consultants developed by the Japan Sports Psychology Association. The certification allows consultants to work at the national training center in Japan, and there is a sport psychology support department in the national training center for present Olympic athletes. However, the study in chapter 3 reveals that the sport psychology

department has organizational difficulty in cooperating with JCA. Since the Japanese framework of sports policy factors does not provide career support, it is assumed that career support has not been understood within the framework of athletes' development in Japan. These organizational issues should be investigated in future research.

However, the psychological Self-Help support designed has been found to be effective in enabling athletes to seek help more easily. The originality of the Self-Help support is that the contents are derived from an analysis of retired elite athletes' needs. Furthermore, it was anonymous, done alone, and without interference by anyone. Although there are practical examples of online athletes' career programs for retired Olympic athletes by IOC and NOCs, to the best of the author's knowledge, there has not to date been any self-help support that can deepen the understanding of what career support is and what psychological difficulties are, while introducing psychological difficulties at retirement specific to athletic characteristics and facilitating access to professional help.

In the thesis, the Self-Help support was designed following a systems engineering approach. Based on this process, not only retired athletes from other sports, but also other areas of people who are going through career transitions and who have difficulty seeking help, such as business executives or celebrities who have had social status. Research on the application of self-help support in various areas would be a future possibility.

The support has been designed essentially as an online application that anyone can access. The support will require further improvements, with the goal of being able to implement it as an application in the future.

6.1 PROPOSED THEORETICAL CONTRIBUTION TO CONCEPTUAL MODEL OF ADAPTATION TO RETIREMENT

In this thesis, all three factors influencing the quality of adaptation to athletic retirement have been analyzed. As a result, the thesis has revealed that the three factors

influence each other and because of the factors related to adaptation to retirement, athletes have difficulty seeking help which means that they have difficulty in accessing available resources. In this thesis, psychological Self-Help support has been designed and evaluated for its effectiveness in making it easier for athletes to seek help. In Figure 6.1, the conceptual model of adaptation to retirement (Lavalley et al., 2014) is shown, along with the psychological Self-Help support in gray color. The Self-Help support is designed to facilitate adaptation to retirement. It is designed so that anyone can do this alone after retirement, without others knowing, so that even if athletes have difficulty in seeking help, they can access the support. Through Self-Help support, they can expect to understand what career support is, what the psychological difficulties are, and by knowing this, they should find it easier to seek help if they need it. In this thesis, the Self-Help support has been designed on the basis of the concept of mental health literacy. The reason for using the mental health literacy was that existing career support in Japan did not include psychological support, so it was assumed that Japanese athletes were probably not literate in psychological support. However, it would be possible in future research to design self-help support with a different concept, such as self-help intervention using cognitive behavioral therapy.

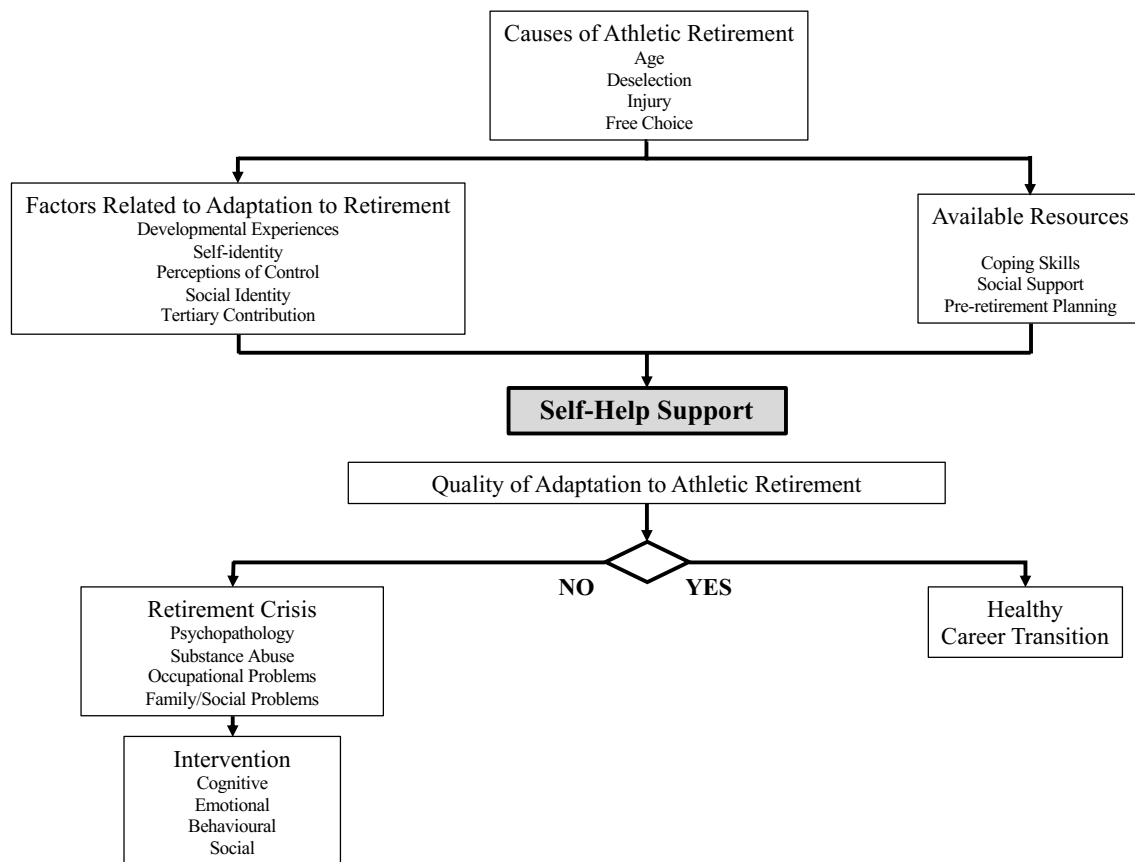


Figure 6.1 Proposed theoretical contribution to the conceptual model (Lavallee et al., 2014)

6.2 PRACTICAL CONTRIBUTION TO APPLY PSYCHOLOGICAL SELF-HELP SUPPORT

The degree of difficulty in seeking help might be changed if there were psychological support based on athletes' needs for dual career support during their athletic careers. Dual career support could be offered as part of an educational (mental health literacy) program. It is important to have psychological support based on athletes' needs in the career support in Japan. This thesis has not investigated present Olympic athletes, but it is expected that future research could identify the needs of present athletes through the system engineering approach demonstrated by the thesis. One of the statements by Henriksen et al. (2020) about improving the mental health of

high-performance athletes was that athletes' mental health is a major resource for the whole athletic career and life post-athletic career. In addition, they advised sports organizations to recognize athletes' mental health as a core component of a healthy elite sports system and a key indicator of their effectiveness, to support research initiatives, and to promote the mental health literacy of all their staff while engaging a mental health officer with the responsibility to oversee a support system.

At the same time, the expression, "I tried to fix it by myself" (Figure 5.4) should be carefully considered. First, when athletes have identity foreclosure, they may find it difficult to recognize their foreclosure. Indeed, a person who has athletic identity foreclosure may not ask for help, and therefore it may be difficult to access this psychological Self-Help support. Lavalley (2019) stated that it is important to let athletes know that it is beneficial for themselves to obtain support. For example, when targeting present athletes, it is important to introduce any career support based on the scientific evidence of performance enhancement. When targeting retired athletes, it should be considered how to reach athletes to encourage the use of the psychological Self-Help support in the first place. The author of this thesis is also a retired Olympic athlete, so it was possible to ask retired Olympic athletes within her network to trial the Self-Help support. It would be recommended that retired athletes be involved in spreading support for athletes related to psychological issues, such as career support and mental health support, and sports organizations in Japan should consider this.

Finally, it should be noted that the Self-Help support has been evaluated with retired Olympic medalists who retired more than 25 years ago. The reason why they were chosen to be the participants was based on the concept of Erikson's dynamic psychosocial model of the challenges and conflicts people face throughout their lifespan (Erikson, 1968). This model has long been proposed as a framework for sport psychology practitioners when working on athletes' career transitions (Lavalley & Andersen, 2000). Three of Erikson's stages (identity, intimacy, generativity) are often connected to transition processes and

can ease or exacerbate transition difficulties. This model gives a dynamic and more holistic picture of the changes and challenges athletes encounter in their sports and in their lives after retirement. When sport psychology professionals are working with retired athletes, this model should be considered. Even if retired athletes use the Self-Help support and seek help from psychology professionals, the practitioners need to consider that athletic careers are uneven and involve progressions, stagnations, and decays (Henriksen et al., 2020).

The findings of the thesis, therefore, advance knowledge in the area of athletic retirement, particularly in Japan. Following the Olympic games in 2021, it is certain that some Japanese Olympic athletes will be retiring. It is recommended that JOC consider the development of psychological support in the existing career support and develop psychological Self-Help support for retiring and retired elite athletes.

6.3 LIMITATIONS AND FUTURE DIRECTIONS

This thesis was conducted with retired female elite athletes. The reason for this lies in the findings of the study on the causes of Olympic athletes' retirement. In future research, female athletes who participated in the winter Olympics and male Olympic athletes should be investigated. Although the thesis was conducted only regarding Olympic athletes, research could be conducted into athletes in professional sports, such as soccer and rugby, after they retire.

Regarding the existing career support environment in Japan, the Japanese framework of sports policy factors does not include career support, and it is assumed that career support has not been understood within the framework of athletes' development in Japan. These organizational issues should be investigated in future research.

In this thesis, the Self-Help support has been designed on the basis of the concept of mental health literacy. The reason for using mental health literacy is that existing

career support in Japan does not include psychological support, so it is assumed that Japanese athletes are probably not literate in psychological support. However, it would be possible in future research to design self-help support with a different concept, such as self-help intervention using cognitive behavioral therapy.

One of the major issues that remain in this thesis is the need for information about where psychological professionals can be found in Japan who specialize in career support. In the future, even if Self-Help support makes it easier for athletes to consult psychology professionals, it will be necessary to improve the environment regarding where they can find such professionals.

Finally, one future research possibility should be mentioned. Since the Self-Help support was designed following a systems engineering approach, the process can be applied to design Self-Help support for people in other areas who are going through career transitions and who have difficulty seeking help, such as business executives or celebrities who have had social status. Research on the application of self-help support in various areas would be a future possibility.

The support has been designed essentially as an online application that anyone can access. The support will require further improvements, with the goal of being able to implement it as an application in the future.

7 CONCLUSION

This thesis has aimed to clarify the psychological difficulties of retired Olympic athletes, and to design tailored support based on the case of Japanese career support and Japanese retired Olympic athletes.

To achieve the aim, a conceptual model of adaptation to retirement has been applied, and each influential factor in the model has been investigated. With regard to the available resources as one of the factors in the model, the current situation of career support has been investigated and it has been found that Japan's career support has developed occupational support, but psychological support is not provided due to a lack of psychological professionals. To clarify what kind of support Japanese Olympic athletes need after retirement in Japan's current situation without psychological support, retired Olympic athletes have been examined with reference to each factor in the model: the causes of retirement, developmental experiences, and difficulties in adaptation to athletic retirement.

For the causes of retirement, 473 retired Olympic athletes were analyzed in groups as follows: male/female participants in the Summer Games (SMO/SFO), and male/female participants in the Winter Games (WMO/WFO). The results showed that the percentage of SFOs who retired for psychological reasons was relatively higher than that of SMOs, WMOs, and WFOs.

Regarding developmental experiences, through the life story analysis method with a female Olympic medalist, it has been revealed that developmental experiences during the athletic career affected the athlete's identity formation and loss of self-confidence after retirement. In addition, regarding types of stressors in adaptation to retirement, a

survey of retired female elite athletes from 13 sports has highlighted both emotional and psychological difficulties.

The findings have revealed that athletes not only have psychological difficulties, but also have "difficulties in seeking help". Based on this fact, psychological Self-Help support for retired athletes has been designed around the concept of mental health literacy in elite athletes, using a system engineering approach. The purpose of the support is to increase the degree to which athletes are able to seek professional help by improving knowledge about what career support is and what the psychological difficulties in retirement are. The support was evaluated through a study of effectiveness and feasibility, in which 24 retired female Olympic athletes participated, including one gold, eight silver, and ten bronze medalists. As a result, their general knowledge about athletes' career support and psychological difficulties at retirement was significantly elevated after the support, and their attitudes to seeking professional help with psychological difficulties in their career and life also improved.

The thesis has been able to fill the gap between the existing career support service for Olympic athletes and the needs of retired Olympic athletes. As a theoretical contribution, the thesis has demonstrated that the developmental experience in the athletic career affects how an athlete seeks social support after retirement. This finding extends and adds detail to existing theory and is considered to make a new contribution to the conceptual model. The practical contribution of implementing the Self-Help support has also been suggested. At the end of the thesis, the needs for future research have been presented.

As for the originality and the usefulness of the thesis, the thesis presents a new way of supporting retired athletes by designing psychological Self-Help support for athletes who have difficulty seeking help through the existing support. Such support is expected to assist retired athletes with psychological difficulties, including athletes who are not

willing to express their feelings to others. In the above points, this thesis contributes further knowledge to athletic retirement research, especially among elite athletes such as Olympic athletes.

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Appendix A

The following is P's response in Japanese and its translation in English. .

Please tell me how you got started in your sport?

シンクロを始めたきっかけを教えてください

Starting Synchro

"I started Synchro at the age of 6 or 7 years old in the first grade of elementary school. Then it was actually we three sisters. I am the youngest of the three sisters and my two sisters happened to go to a Synchro course there, and my two sisters got into it. Well, my mom is a strange person, she thinks it's better to do something not everyone does than to do something everyone does, like swimming. Yes, so my two older sisters did Synchro, and I'm 5 years apart from my second sister. Naturally, I started looking to them."

シンクロを始めたのは、小学校1年生の6歳か、ま、7歳で、きっかけはうちの3姉妹だったんですよ。3姉妹の末っ子だったんですけど、姉達があたま●●●いうところのそのシンクロコースがありまして、2人がそこに入ったんですね。ま、母が変わった人で、その競泳とかみんながやってるようなやつよりは、やってないのがいいとはいい、それで、姉達2人がシンクロをやり、で、私年が離れているので、5つ離れているので、下の姉と姉達を見ていたので、自然に。

Deepening Commitment

"There was one time I really wanted to quit at the beginning. It was when I moved from 6th grade to junior high school.... It was a bit tough in the days when I didn't swim for 2 weeks. The fact of being "a person who doesn't swim". So, I thought of going back. It all came to me, so I went back. At that time, I realized that I couldn't continue unless the coach believed me. I actually made a false accusation. I don't remember doing that, but the coach said I did. No matter how much I loved Synchro, I couldn't continue unless she believed me. So, I quit. But I loved Synchro, so I went back. When I couldn't swim for two weeks, I realized that I really needed Synchro. I was really worried. I was in the middle of my adolescence. You know it was a tough time. The environment changed. I started going to junior high school. In many ways, I felt that it was painful that I couldn't do Synchro."

Yes, no matter what I did, it wasn't fun. Even when running at the track and field club. It was when I started the first grade in junior high school. Then I went back, and well it was really fun."

最初に本当にやめようと思ったことが一度あって、それは、小学校6年から中学に上がる時で....中略...2週間泳がない日々のなかで、ちょっと辛かったんです。泳がない自分っていうのが、それでももう帰ろうと思って、みんなが迎えに来てくれたので、戻り。その時にこうやっぱり先生に信じてもらえないなら続けられないし、私は本当に冤罪ですから、それは、私はそんなことした覚えはないのに、そういうこと言われて、いくらシンクロが好きでも、信じてもらえないのであれば、やりたくないと思って、やめたの。でも、シンクロやっぱり好きだったので、戻ったんです。2週間泳げなかった時に、本当にシンクロが必要なんだ、と悟ったんです。すごい悩んだんですよ、中1なんてすごい思春期はいる、すごい大変な時期じゃないですか、環境もかわって、中学は行ったところで、いろんな意味で、シンクロができないつらさっていうのを感じたし、うん、何をやっても楽しくなかったんです。陸上走ってても、中1なったばかりで、そこから戻って、まあ、すごく楽しかったです。

Competitive Characteristics

"When I think of it now, I think I was very childish. I wonder if I could have been a little calmer and I could have thought in an adult way or given an adult response. But you know, there is only zero or 100 at that age, don't you think?"

今考えたらものすごく子供だなんて思うんですけどね、もうちょっと冷静になって、大人の考え方、大人の対応ができなかったのかな、と思うんですけど、でも当時はもうゼロか100しかなかったじゃないですか。

"Well, what can I say, you know, maybe it sounds bad, but as an athlete, I really felt like a machine. I was like a swimming machine. I was treated as a swimming machine. The machine was named "Athlete". I was so sad that my opinion as a person was not respected or heard at all. To some extent, I thought I had been recognized as an athlete after overcoming both the Olympics and the World Championships. It was like a complete rejection."

これはもうね、なんだろう、選手としての私のなか、言い方が悪いですけど、機械というかそういうマシン、泳ぐマシン、選手という名のマシンみたいな扱われ方をしてるな、ってすごい思ったんです私は、人としての意見はまったく尊重されず、聞き入れられないところに、私はすごい悲しかったし、ある程度、選手として、オリンピックも世界選手権も乗り越え、認められてきたって思ったところだったのに、それはもうまったくやっぱりもう門前払いみたいな感じだったんで。

"Even though I thought I had done very well, the coach got mad at me. The score did not match. What was it? Sometimes when I didn't do well, the score was high. The coach praised me. That

meant what I did and the result didn't match. It is such a disgusting sport. At that time, I was really wondering what this was about."

自分ができると思ってのに●●先生に怒られるとか.点数でないとか.あれ,今いちだったのに,点数でて,●●先生ほめられるみたい.そのなんか自分のやってること,結果が一致しないことがすごい気持ち悪いスポーツだあってその当時はすごく悩んだり.

"I knew in my head that it was important to think I should just do my best and it was OK if I thought I had done well. But you know, we were people who were graded, so it was really important and we were sensitive to the evaluation of others. I was just worried about what people thought of me."

シンクロやってた時も自分自身がいい演技ができる自分のなかではまるっていうその大事さはわかってはいるものの,やっぱり私たちは採点される人なので,人に評価された,その評価がすごい気になる.人からどう思われるかとか,そういうことばかり気にしてた.

"Perhaps until now, there have been many people who have instructed me without me asking to be instructed. I was doing it even though I didn't like doing it. So, I think I didn't really ask for anything."

たぶん今まで,教えてくれて言わなくても教えてくれる人がいっぱいいたんですよ.嫌でもやらされてたから,自分からすごく求めにいったことってなかったんだと思う.

Tell us about your mental strength as an athlete.

あなたの選手時代の心のことについて教えてください

Sporting Values

"Well, I was very weak. My mind, like my mentality, my mind was weak. I was influenced easily and became lazy. Well, basically I just didn't want to lose against myself."

あの一,私はすごく弱いんです.心が.心が弱いというか.すぐに流されたり,すぐにこうちょっとこう楽をしようとする性格なので.まあ,自分にとにかく基本的には負けないようにっていうことを.

"I skipped some training. I was young. And when I was young, I didn't go to training several times. But the feeling was uncomfortable. When you skip training, you can't help thinking, 'Ah, now they're training. Maybe this is the time they started the warm-up. Now they're doing a swimming menu... Now they're doing routine training.' Maybe you know, right? You can't help thinking each minute. Not fun at all. So, I realized at the age of being in elementary school, it is refreshing to go and do some hard practice."

何回かさぼりました。小さい時に、でも、小さい時に、その何回かさぼって、やっぱりそのさぼっても気持ちよくないじゃないですか。さぼっても、ああ今何やってるな、今アップやってるな、今競泳やってるな、今ルーティンやってるな、とか分ごとに考えてしまう自分がいて、何にも楽しめない自分がある。だから、そんなふうな気持ち悪い感じでさぼっているんだったら、いってしんどい思いをしたほうが、まだスッキリするなって思いました。小学生の時に。

"I would think that there was no point unless you win. But not only winning. Winning was not enough. Winning with the coach's OK sign was important. So even when I won, if the coach didn't look happy, of course I would try to win though, but then I had no clue. In myself, sometimes I had the feeling that I swam very well. So, when my feeling and the evaluation matched, I had a great feeling of achievement. But somehow there were quite a few things that I did not feel clear about in myself."

とにかく勝たないと意味がないと思ってました。ただ、そこはただ勝つだけではなくて、あの、先生のオッケーサイン付きの勝ち。だから、ただ勝っても、先生が渋い顔してたら、全然、結果がもちろん勝ちをとりに行くんですけど、その明らかな結果が何なのか、わからない。自分のなかでのすごい自分でよく泳げたっていう時がつときてあるので、合致した時は、すごい達成感に襲われるんですけど、それがなんか自分のなかですっきりしないことってけっこうあるんですね。

"It's just like the difference between professional baseball players and Olympic athletes. The Cirque is 365 days. But you have a day off twice a week, and within that, if you hit 30%, it's good. But for the Olympics, you see, it's different. It's only once in 4 years and it's only 5 minutes or 3 minutes when you really need to focus. To the extreme. You know? That's different."

プロ野球選手とオリンピック選手の違いみたいな感じで、シルクは365日、週に2回休みありますけど、3割打てたら御の字じゃないですか。だけど、オリンピックは、ね、4年に1回のそのわずか5分とか3分とかに全部を集中させるっていう極端にいったら、そういう違いありますよね。

"It was not being perfect. Rather, I always wanted to aim higher. I wanted to go higher. The desire to be strong was extremely high. The desire was really huge."

完璧というよりは、いつもなんかもっと上を目指したいというか、もっと上にいきたい、もっと上にいきたいってなんか、こう強くなりたい欲求がすごい高いですね。欲がすごい。

"I have the personality to drive myself hard. I feel I have to. Otherwise, I can't do anything. So, I need to put myself in a tough situation. Otherwise, I can't start doing things. That's me."

けっこう追い込みたいタイプなんです。追い込まないとできないというか。だから自分であえて追い込む体質なので。へこまない、けっこうやらないので、私自身は。

Tell us about your retirement.

引退した時のことを教えてください

Retirement Difficulties

"I had huge pride at the beginning after retiring. You see, in the Synchro world, I was top. I had a strange pride in myself that I used to be top in the Synchro world, so I couldn't honestly say I didn't understand when I didn't understand. I entered the TV world at first. I could have asked for instruction if I didn't understand. But I tried to fix it by myself. It was tough. It was really tough. Then, I couldn't show my weaknesses or couldn't show my weak points. I felt I was so alone. For a long time. But you see, I was proud. So the ideal in me was really high. In everything. Even as a TV reporter, TV commentator, in myself, my ideal image was so high. This was good though, but then after all, my ability was not good at all. The gap was tough in the first year. I was a TV commentator once a week. Every time on the way back home in the taxi, I got very depressed. I cried going home. Really. It was really tough."

辞めて最初のころっていうのは、すごいプライドがあるんですよ、なんか、そのシンクロの世界ではトップだったっていう変なプライドがあって、わからないことを素直にわからないっていえなかったり、テレビの世界にはいったので、わからないから教えてもらえばいいのに、自分でなんとかしようって思ってしまった、すごいしんどいです。すごくしんどい。でなんかこう弱音を見せられないとか弱いところが見せられないとか、すごく一人な感じがしてたんです、ずっと。でもプライドがあるから、自分のなかの理想はすごく高いんです、すべてのことにおいて。リポーターもコメンテーターであってもすごい自分のなかでは、理想高くもって、それはすごくいいことだと思うんですけど、でもそこにやっぱり実力がまったくもなわないので、そのギャップがすごくしんどくて、最初の1年間くらいは、コメンテーターとかやりながら、番組の収録毎週一回だったんですけど、帰りのタクシーのなかでへこみまくって、泣きながら家に帰るっていう、なんかホントにしんどかったですよ。

"After all, when I retired, I wondered why everyone in the world wasn't working so hard. Why were these people, saying they can't? They can't because they're not working hard enough. I really didn't get it. So? Well, then you just do it. Why you don't? I was really wondering why."

やっぱり選手辞めた時っていうのは、なんで世の中の人こんなに頑張っていないんだろうっていう。なんでこんな頑張っていないのに、でけへんでけへんって言うんやろこの人ら。もう意味わからんっていう。で、だから、やればいいのっていうふうにすごい思ってたんですね。

"How can I put it, really, I have to keep my energy in check. I shouldn't show my feelings. I have to live without letting out my feelings. I have to be gray. Gray in color. I have to act like this. You know

even if I told them, no one understood. That's it. Okay, okay, maybe that's the way it is. That is what it means to become an adult. Wow, what is that? Somehow, it seems that people have to walk at the same pace in society. You have to adjust."

すごいなんか自分の力をすごいセーブするというか、自分の想いを出し切らないで生きていく、グレーな自分、演じなきゃいけないという。言ったところで伝わらないんですよ。そうだから、まあまあ、こんなかなあっていう。これが大人なんかなあ、なんなんだろうっていう感じでした。なんかこう世の中に歩調をあわせていこうっていう、そういう調整をしなきゃいけないんだなあっていう。

"I wanted to be aiming higher. I had my ideal image higher. I was able to reach a high level in Synchro, but as a TV commentator, well, suddenly, a person like a baby takes on an ideal image for a greater level. There is a dilemma. I was also irritated about the laziness of the people around me."

自分をもっともってというのを目指したいし、自分をもっともってという理想像はあるんですけど、それはシンクロではもっともってという高いレベルでやってましたけど、コメンテーターいいたら、もうはいはいしてる赤ちゃんくらの人がいきなり、すごいレベルのもっとを理想像を勝手にかがげてて、そこのジレンマっていうのもあって。周りの人のゆるさには、すごいそれが気になってましたね。

Tell us about yourself these days.

最近のあなたについて教えてください

Current Challenges

"As a wife, mom, TV commentator, everything was not the same. In the past, I thought I would just do whatever I wanted to do, but now, well, there are so many things you can't do even if you want to. Sometimes I feel, What? But the kids come first. Family first. Balance around that, the balance for living. How to balance yourself around that so that nothing breaks."

妻の時と、母の時と、コメンテーターの時と、●●●、それぞれに全部が一緒とは思えないです。昔はとにかく自分のやりたいことってやればいじゃんって思ってたんですけど、今は、その、やりたくてもできないことってやっぱりいっぱいあるし。あの、え、っていうこともあるけれども、ま、子供が一番、家庭が一番ってところの、そのあたりのバランス、生きて行く上での、塩梅というか。そのあたりのバランスを自分でどううまくって、どれも折れないようにするっていう。

"That's why, there is no challenge at all anymore. That is, well, I think it can't be helped. Yes. But, if you give up something, it will not continue, so I go on."

だからなんかね、もうチャレンジングでは全然ないんですよ。これいたしかたないと思うんですよ、もうはい。だけれども、なにかを諦めてしまったら、それはその先続かないことになるので、あの、続けていく。

"In the past, you would have to use 120% of your strength. Otherwise, you didn't feel you were working hard enough. It's not like that now. The environment I have now, the environment given to me now, you just do what you can in the given environment. This, doing what you can do, is like only 30 or 40% of my effort compared with the past. So, that kind of myself, is it OK like this? I just think I want to do more; a burning heart. You know we have the kind of DNA, don't you? I am trying to make it good, adjust it myself. A balance is needed for me now."

昔みたいに極端に120%の力を出さないと自分頑張ってる気がしないってことではなく、で、今ある環境、与えられた環境のなかで、できることを出来るかぎりやるっていう。その出来る限りは昔に比べたら、3割4割くらいしか頑張っていないって思うんですよ。昔と比べたら。だから、なんか、こうそんな自分が、こんなんでもいいのかな、ってふって思うときって、もっとしたい、めらめらってなるそういうDNAあるじゃないですか。それをうまいこと、自分のなかで調整するというか、バランスは今の私に必要なことだからっていう。

"I think being an athlete was definitely more stressful than now if I think about it now. But, at that time, we went on to the end, right? We did 100%. But now, I have the stress that I can't do 100%. I have the stress that I can't go on until the limit. It means that I can't push myself hard. In my mind, I don't have time. You know I want to do so much, but I have to pick up the kids. I have this kind of stress. I'd better really not to think this is stress, but I can't help feeling stressed about those things. I guess I feel stressed to be in the halfway."

選手の方が今考えたら絶対ストレスあると思うんですけど。でも、あの時のほうが、もうやりきってるじゃないですか毎日。やりきってる。でも今はやりきれないストレスってのが、自分の思っているところまでやりきれなかったというストレス。それが自分で追い込みきれないってことだったり、その自分のなかで、時間がないとか、うん、そういうここまでやりたいんだけど、子供迎えにいかなあかんわ、とかっていうストレスとか。なんかそれは、ホントはそういうのはストレスって思わない方がいいんですけど、ストレスとってしまうんです。心半ばになることがストレスになるのかな。

New Values

"It's a completely different way of thinking from the way as an athlete. So, it is not winning for myself only. I just realized so many things. When I was an athlete, I was just doing my best. But not that. I was at the top, above the people who supported me. I was just sitting in the most shining place. I realized in the TV studio that there were so many people supporting me. Sitting on the stage in the studio, you see, there are many kinds of people in the studio. There are sub-directors, sceneshifters,

and others. I can see them right in front of me. Wow, there are so many people supporting the TV show. Then, I noticed that maybe Synchron was the same. I noticed it now. It's been so long since I retired. How silly I was when I was an athlete. I was not thinking about anything."

選手の時の自分の考え方と、全く違うんですよ、考え方が。だからなんか自分だけ勝とうとかそういうんじゃないし、いろんなことでも気づきだしますね。選手の時には、とにかく自分が頑張ってるんだって思ってたのが、そうじゃなくて、自分は、その一番なんかみんなにのせてもらって、一番ええところで輝かせてもらってただけであって、まあ、それを支えている人はこんなにいるんだってことをテレビの現場で感じるんです、やっぱり。スタジオに座っていると、いろんな人がいるじゃないですか、スタジオのなかに。そのサブにもいっぱいいろんな人がいて、大道具さんがいて、小道具さんがいて、目の当たりにするじゃないですか。あ、こんなにいろんな人がいて、番組って成立してるんだって思ったら、あ、シンクロも一緒やったんやなあっていうことに辞めてほしいから気づくっていう。ま、選手の時はいかに、何も考えずにやっていたかっていう。

"But I was saying thank you very much in words. I said it, but what did I really appreciate? I've just realized that. I felt that the only thing I could see in front of me was the coach."

でもすごくありがとうございますとか言葉に感謝して、いってるんですけど、ほんまに何に感謝してたんやおまえは、っていう自分に気づくっていう。目の前に見えていたものは先生だけだっていう感じがしましたね。

"For me, I tried a lot of challenging things, and even at the Cirque, I did what I wanted to do. I've lived a long time thinking that I can't understand unless I try. But I realized that there are people who can't do this. I realized that it was strange to impose my thoughts on people."

自分にしてはすごいチャレンジングにいろんなことにトライして、シルクも自分がやりたいって思うことにはとにかくやってみる。やってみないとわからないって思いでずっと生きてきて。だけれどもそうはできない人もいるんだなってことに気づいたり。そういう考えを人に押し付けることっておかしいなって気づきたんですよ。やっぱり。

"If I make it simple, it's just not about winning. Winning, I've always thought that I won't be recognized unless I win, but, I think the world is like that. But being recognized by people isn't everything. We are not living to get people to recognize us. I would be happy to get recognized, and I'm happy if I'm praised or told that I'm amazing. But that's not everything. Not only that sense of value, but what you are is actually the most important thing."

簡単に言うたら、勝つだけじゃないってこと。勝つ、勝たないと認められないっていうのは確かにずっと思っていて、でも世の中ってそういうもんだと思うんですけど、でも人に認められることが全てじゃないし、人に認めてもらうために生きているわけでもないですよ。認められたら確かに嬉しいし、褒められたり、すごいねって言われたら嬉しいんだけど、その価値観だけじゃなくて、やっぱり自分がどうであるかってことが実は根本的に一番大事なことなんだよねっていう。

"After retirement, I went to the media world. Of course, if I did something wrong on TV and people hated it, I would not be able to stay there. But I'm not working to be liked by millions of people, so as myself, who I am, I can live a little more naturally and it's OK to be relaxed in life."

選手やめて、メディアの世界いったら、人から嫌われるような仕事してたら仕事続かないんですけど、だけど全ての万人に好かれるために仕事しているわけではないので、だから、そのあたりの自分自身の自分らしさというか、もうちょっとナチュラルに生きていいんだっていう、力抜いて生きてもいいんだっていう。

"Gradually, I started to notice various things little by little. Well, well, I was at the top in Synchro, but the level of commentating was less than zero. For example, I was swimming all the time when all ordinary students were studying for 4 years. My starting line was really behind compared with others. It is obvious that the level or my starting line was behind. After all, I wondered what this was for various people. I was starting to wonder if it was okay to expose myself a little more. That was the second or third year after starting the job."

だんだんちよっこいろいろなことにちよっずつ気づき始めて、まあまあ、私もシンクロではトップだったけど、しゃべりなんてゼロ以下だし。それこそ普通の学生さんがやっていたような4年間大学で学んでいた時間は私はずっと泳ぎ続けていたんだから、みんなよりスタート、レベルがスタートラインがすごい後ろにあって当然だし。やっぱりいろんな人にこう、なんだろうな、もうちよっこの自分を曝け出していてもいいのかなあってちよっこ思い始めるんです、二年目三年目。

Transferable Skills

"To get results, enough preparation is needed mentally and physically. It's easy to say, but I was able to really experience it. That applies to anything. In anything, preparation and process are important. There is no unfounded confidence. It's similar to what I talked about earlier, but I have well-founded confidence only in me. You just need to prepare. At least the minimum preparation. At work as well. And preparing for kids is the same. Everything needs preparation. I need to prepare for the coming time. That was something very important as an athlete."

結果を出すためには、それだけの準備が必要だってこと、心も体も学んだですし、理屈では簡単にいえることですけど、やっぱり実際にそれを経験させてもらったことで、なんにでもそれは当てはまること。なんでもプロセス準備何するか、ってことが大事だし。根拠のない自信はないっていう。さっきの話と似てますけど、根拠がある自信しか私のなかではないんですよ。準備をせなあかん。それなりの準備はするとか。仕事の準備をする。子供の準備するとかすべてそうですけど。その時をきちっと向かえるための準備が必要。は、選手のときすごく大事なことだろうな、と

"I had to be sharp otherwise I couldn't reach the top. So if you are lax, you can't become the number one in the world. I used to be very, very sharp. I think that having such an experience when I was young was an extremely valuable asset. I can't live like this for the rest of my life. But after all, being able to experience such a thing when I was young, once you become an adult, you can't that do easily, don't you think?"

尖がってたことをしないと、尖がってないと、トップは目指せないと思うので、緩いことやって、世界一にはなれないと思うので、そういう時代を尖がって、めちゃくちゃ鋭利な尖がった状態で、若い時代にそういう経験ができたというのは、すごい貴重な財産とは思いますが。それで一生、暮らして行くわけにはいかないし。でもやっぱり若い時にそういうことを経験できたことは、なかなか大人になってからじゃあ、それしようってできないじゃないですか。

"I learned that it is important to make an effort. So, you see, some people don't know how to make an effort. Like someone saying, What does effort mean? Maybe asking, Why do I make an effort? Well, it's not just good results, but it's kind of like repeating something that comes with results and something new comes out of it. It was very important that I learned how important it is to build up a career. Since I was kid, I learned that. That is very important."

努力することが大事だってことは教わったので、それは、努力の仕方がわからない人っているじゃないですか。頑張るってなに？みたいな、なんのためにがんばるの？みたいな。まあいい結果だけではないですけど、なんだかなだやっぱ結果がついてきて、そこからまた新たな何かが生まれるっていうことを繰り返すっていう。そのキャリアを積み重ねていくっていうことがいかに大事かっていうことを、やっぱり、子供の時からずっとやっていくなかで教わったのは、すごく大事なことだったなあって。

"There is the term, having a successful experience. But for us, we experience both success and failure through sports, right? Because I experienced all of these totally, I know if I do something, I will either succeed or fail. But I know someday success will come. After all, if you do not take on a challenge first, nothing will start. I think that the valuable experience that I had in sports is being utilized to the fullest in my subsequent life."

成功体験をしているっていうのが、成功も失敗体験もしているじゃないですか、スポーツを通じて。その体験をきちんと体験してるから、必ず何かやったら失敗するか成功するか。だけれどもどこかで成功することは出てくるのか。やはりまずチャレンジしないと何も始まらないってこととか。そういうことをスポーツのなかで経験しているという体験値はすごい活かされていると思います、その後の人生で。

Do you have any advice for younger athletes about retiring from sports?

何か競技引退について後輩にアドバイスはありますか？

Advice for the Next Generation

"I just think you should learn. First you should learn. Because athletes are not stupid. Don't you think? Athletes are aware of the problems in many ways. They are even aware of the problem of retirement. Also, of problems such as those of society, the sports world, and so on. Not only by feeling, but you also have to have the competency to explain things properly through theories. Otherwise, you are not useful in society; you can't survive in life. This learning, maybe all athletes should do. Perhaps it depends on what you want to do, but if you start working, you can never avoid it. Without learning, for the time being, I think there's still a trend that it's OK to just do sports. This should be changed, don't you think?"

勉強したらって思います。まずは、勉強したらってというのは、選手って、バカじゃないからみんな。すごいいろんな意味での問題意識もってるじゃないですか。辞めた自分っていう問題意識もってるし、社会に対してとかスポーツ界に対してとか、いろんな問題意識はもってるので、感覚的にもってるだけではなくて理論できちんと説明できるような力をつけないと社会で通用しない、生きていけないので、それはやっぱり、誰もがするべきかなあ。もしかしたら、やりたいことによって違うんですけど社会にでて、働いていこう、でもそこは絶対避けては通れない、ちゃんと勉強しないで、とりあえずスポーツだけやってたらいってまだに風潮あるじゃないですか。まずはそこを変えるべきだと。

"When I was an athlete, I was directed to do this and to do that by the coach. But I was directed without noticing that I was directed. I was on the set rails. They were not the rails I chose. I was running on the rails, and I was pushed from behind. So, instead of being pushed on the rail from behind, after all, you have to choose your own way to go, you have to hold your own rudder, you have to have your driving force, you have to go forward by yourself. Otherwise, if you don't do that, you'll regret it somewhere, and myself, I think there are various regrets about this, when I was an athlete. That's why I was able to do that, you know. That is why I was able to win a medal. I know that is why I am here. But well, you know. Even when you are in a second career, if you stumble again, well I am sure you stumble. Even if you take a detour, you should go on your own."

自分ですごい思うのは、選手の時ってね、あれやりなさい、これやりなさいって自分では敷かれたレールにのってないつもりでまんまやっていたのに、ばりばりレールの上をもう後ろからぐいぐい押されながら、走ったんですよ。だから、レールを後ろから押してもらわなきゃなくて、やっぱり自分で行く道を選択して、自分で舵を自分で推進力をもって、自分ですすむしかないんで、それをしないとどこかで後悔をしてしまったり、なんか選手の時のいろん

な後悔はそこにあると思うんですよ私は。だからそうできたんですけど。だからこそメダルを取れたし、だからこそ、今の自分もあるんだけど。やっぱりそこでどうしても、ね、セカンドキャリアになった時にそこでつまづくのは、必ずつまづくので。遠回りをしようが、自分の力で進むってこと。

Appendix B

Contents of Self-Help support workshop (pp.1-56)

Page	Contents	Answers
1	Understanding about what career support is	
2	What is "career"?	
3		Career: Lifetime, career, history, occupation (requiring special training), lifelong work, sprint
4	Who is an "athlete"?	
5		Athlete: People who train for results, People attending the competition, A person who is officially registered as an athlete with a national or regional athletic federation, Practice or competition itself is the central activity of life, People who spend several hours of their day competing because they like it.
6	What is "athlete's career"?	
7		Two possible translation: Athletic career Athlete's career
8	What is "athlete career support"?	
9		1. Preventive/Supportive Support(Assistance) 2. Crisis/Negative consequences coping Support (Assistance) (Torregrossa, 2019)
10	What is "multifaceted issues"?	
11		Psychological, Psychosocial, Financial, Academic and Vocational (Stambulova & Samuel, 2019)
12	Support for solving each issue	
13	CASE1: A (Female, Age 16, Swimming)	
14	What kinds of support does she need?	
15		Psychological: Who am I? Psychosocial: What kind of coaches and teachers do I need? Financial: Sponsorship, Scholarship Educational: What kind of school would be the best to continue my sport?
16	The research shows that thinking about retirement can let athletes focus more and better results.	
17	CASE2: D (Male, Age 26)	
18	What kinds of support does she need?	
19		Psychological: Regret Psychosocial: Anger towards surroundings Financial: None in particular Vocational: I don't know what to start
20	CASE3: J (Female, Age late 40s)	
21	What kinds of support does she need?	
22		Psychological: I didn't have time to worry about it properly. Psychosocial: Social identities Financial: Not in particular Vocational: Anxiety about starting from scratch

23	What is career support? (Fill in the blank)	
24		There are two types of career support: (dual career) support and (career transition) support.
25		Both types of support should be multifaceted (psychological, social, financial, vocational and educational), considering the athlete's (life as a whole).
26		It has been shown that athletes who think about retirement during their athletic careers are more likely to (improve) their athletic performance.
27	What is career transition support?	
28		"Retirement" is the "," of life, not the "." of life.
29		It is not "Second Career", rather "Career transition support"
30		Support needed for the mindset and environment to create a life that is not just about sports.
31	Understanding about psychological difficulties at retirement	
32	Retired after not being selected for the Olympics (Male, Age20, Athletics)	
33	Feeling old and retired (Male, Age33, Baseball)	
34	You were an elite athlete, and when you retired, what did you feel?	
35	Athletes have difficulty seeking help	
36	Who is in the career support?	
37		An interdisciplinary group of experts who can provide multifaceted support to athletes by considering their entire lives.
38	What kind of professions do they have?	
39		Psychological: sport psychologists, clinical psychologists, psychiatric experts Physical: doctors, physical therapists, condition specialists, nutritionists Financial: financial experts Employment and schooling: employment and schooling support specialists (Wylleman, 2015)
40	Types of professionals involved in the psychology of athletes	
41		Clinical psychologist/ Sport psychiatrist and Mental training consultant
42		There are people around the athlete who can provide support, even if they are not psychologists.

43	Understanding about how to identify your own psychological difficulties	
44	What prompted you to retire?	
45	What was the final causes for your retirement?	
46	What is it voluntary or involuntary?	
47	Was there something you wanted to do after you retired? What was it?	
48	Know yourself besides the sport, besides how you are seen by society.	
49	When you introduce yourself, do you say the name of your sport, such as "I'm Tanaka, a swimmer"? If so, why?	
50	Do you feel uncomfortable with the way society sees you as a former Olympic athlete?	
51	What kind of profession do you have after you retired?	
52	Do you still feel that you are an athlete?	
53	What kind of preparation did you do for your retirement?	
54	From the time you were an athlete, did you know in advance what stresses were likely to happen to you and did you create coping strategies to prepare for retirement? What kind of stress did you face and what measures did you take to deal with it?	
55	Conclusion	These questions can be answered with a psychologist to organize your thought. Psychological career support is not relying on someone. It is for you to figure out your own direction.
56		1: Career support is not second career support. 2: It has been shown that people who think about retirement from the time they are active improve their athletic performance. 3: Elite athletes have unique psychological struggles. 4: Psychological support in retirement is not support for mental illness. 5: Worrying about life after retirement is important as an individualization. 6: Psychological support is not about putting your life in someone else's hands, but about figuring out your direction on your own.