

An Exploration of Factors that Influence Post-Varsity Sport Participation: The Case of Former
Ontario University Athletic (OUA) volleyball players

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any final revisions, as accepted by my examiners. I understand my thesis may be made electronically available to the public

Abstract

The purpose of this study was to explore factors that predict post-varsity sport-participation among a sample of former OUA volleyball players. Specifically, this thesis explored relationships among the facets of enduring involvement (i.e., attraction, centrality, social bonding, identity affirmation, identity expression), quality of sport experience, amount of time since leaving the team, and post-varsity participatory behaviors. A total of 90 male and female former OUA volleyball players were asked about their current participatory behaviour, perceived quality of varsity experience, and enduring involvement. Results suggested that the more time that passed since participating in varsity volleyball, the less frequently former athletes reported participating in the sport. Moreover, the more former varsity athletes felt attached to the sport and felt their participation was central to their lifestyle, the more frequently they reported participating in the sport. Interestingly, however, the more former athletes perceived their current participation as an opportunity to reinforce their identity as a “volleyball player,” the less frequently they reported participating in the sport. Implications for practice, theory, and suggestions for future research are also discussed.

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Table of Contents

List of Tables.....	vii
List of Figures.....	viii
1. Introduction.....	1
1.1 Benefits of Continued Involvement in Sport.....	3
1.1.1 Benefits of Continued Participation in Sport.....	3
1.1.2 Benefits of Coaching in Sport.....	4
1.2 Varsity Sport Participation in Canada.....	5
1.3 Implications of Study.....	8
1.4 Problem, Purpose, and Research Questions.....	9
1.5 Hypothesized Model.....	10
1.5.1 Age, life course, and participation in leisure.....	12
1.5.2 Quality of the University Sport Experience.....	13
1.5.3 Enduring Involvement.....	14
1.5.4 Participatory Behaviours.....	15
1.6 Organization of thesis.....	15
2. Literature Review.....	16
2.1 Outline of the Chapter.....	16
2.2 Amount of Time since Leaving the Team.....	16
2.2.1 Consistency and Uniqueness of Leisure Activities.....	17
2.2.2 Lifespan Perspective.....	18
2.3 Quality of Sport Experience.....	19
2.3.1 Opportunities to Perform and Improve.....	20
2.3.2 Exertion and Fitness.....	20
2.3.3 Freedom from Everyday Life.....	21
2.3.4 Social Attributes.....	21
2.3.5 People organizing the sport.....	22
2.3.6 Coaching.....	22
2.4 Extant Theories and Models of Sport Participation.....	24
2.4.1 Constraints.....	24
2.4.2 Self-determination theory and Motivation.....	27
2.4.3 Theory of Planned Behaviour.....	30
2.4.4 Summary and Critique of Extant Theories.....	32
2.5 Conceptual Development of Enduring Involvement.....	33
2.6 Enduring Involvement Scale Development	36
2.6.1 Single Factor versus Multifaceted Development.....	36
2.6.2 The Modified Involvement Scale (MIS) facets of Enduring Leisure.....	40
2.7 Applications of the MIS in Leisure, Tourism and Sport Domains.....	42
2.8 Gaps in Previous MIS Research.....	48
2.9 Summary.....	49
3. Methods.....	52
3.1 Outline.....	52
3.2 Research Design.....	52
3.2.1 Survey Research Design.....	52

3.2.2	Retrospective Approach.....	54
3.3	Data Collection Procedures.....	56
3.3.1	Recruitment Procedures.....	56
3.3.2	Study Participants.....	57
3.3.3	Pilot Study.....	57
3.4	Measures.....	58
3.4.1	Independent Variables.....	58
3.4.2	Dependent Variables.....	60
3.5	Data Analysis Plan.....	61
4.	Results.....	62
4.1	Outline.....	62
4.2	Data Input and Cleaning.....	62
4.3	General Results.....	62
4.3.1	Response Rate.....	62
4.3.2	Characteristics of Respondents.....	63
4.4	Descriptive Statistics.....	68
4.4.1	Participation in Volleyball.....	68
4.4.1.1	Indoor Volleyball Participation.....	68
4.4.1.2	Beach Volleyball Participation.....	69
4.4.1.3	Coaching Volleyball Participation.....	69
4.4.1.4	Participation in Volleyball Score Results.....	70
4.4.2	Quality of University Sport Experience Results.....	70
4.4.3	Enduring Involvement Results.....	71
4.5	Hypothesis Testing.....	74
5.	Discussion.....	79
5.1	Summary of Results.....	79
5.2	Amount of Time Away From the University Team and Frequency of Current Post Participatory Behaviours.....	80
5.3	Quality of the Sport Experience and Frequency of Current Post Participatory Behaviours.....	82
5.4	Enduring Involvement and Frequency of Current Post Participatory Behaviours.....	83
5.5	Limitations.....	87
5.6	Implications of Findings.....	88
5.6.1	Implications of Practice.....	88
5.6.2	Implications of Theory.....	89
5.6.3	Future Research Recommendations.....	90
5.7	Conclusion.....	90
References	92
Appendix A	LTAD Stages (LTAD, 2006).....	114
Appendix B	Modified Involvement Scale (MIS) (Kyle et al., 2007).....	116
Appendix C	Questionnaire.....	118
Appendix D	Initial Contact Script.....	127
Appendix E	Yes to Participation Script.....	129
Appendix F	Thank You Script.....	132

List of Tables

Table 2.1 Previous definitions of the enduring involvement construct per year and field.....	34
Table 2.2 Enduring Involvement facets and definitions	42
Table 4.1 Demographic Characteristics of Former University Volleyball Player Respondents.....	65
Table 4.2 Means, Standard Deviations, and Inter-Correlations Among Participation in Volleyball Variables.....	73
Table 4.3 Regression Analysis for Variables Predicting the Frequency of Volleyball Participatory Behaviours.....	75
Table 4.4 Hypothesis Accepted or Rejected	77

List of Figures

Figure 1.1 Proposed hypothesized model of the study.....	11, 51
Figure 2.1 Hypothesis 1	19
Figure 2.2 Hypothesis 2	23
Figure 2.3 Interpersonal constraints relationship	25
Figure 2.4 Intrapersonal constraints relationship	25
Figure 2.5 Structural constraints relationship	26
Figure 2.6 The hierarchical model of leisure constraints	26
Figure 2.7 Ryan and Deci (2000) taxonomy of human motivation	29
Figure 2.8 The theory of planned behaviour	31
Figure 2.9 Hypothesis 3	49
Figure 4.1 Prediction of the Frequency of Current Volleyball Participatory Behaviours.....	78

CHAPTER ONE: INTRODUCTION

Being a university student-athlete is challenging. Student athletes must fulfill academic commitments including classes, exams, term papers, and group projects with peers. Student-athletes must also make time for demanding practice schedules and competitions. According to Miller and Kerr (2002), Canadian student athletes spend around 20 hours per week training when in season, and approximately eight hours per week when not in season. In addition, these athletes usually spend an additional 20 hours per week on activities related to their sport including rehab, strength and conditioning training, film analysis, nutrition, and sports psychology (Comeaux & Harrison, 2011). For some athletes, all this effort in participating pays off with a career playing the sport they love. According to research done by the National College Athletic Association (2013), an average of 2.6% of American college student athletes get to play at the professional level such as the National Basketball Association (NBA), National Football League (NFL), or Major League Baseball (MLB) after graduation. For other smaller sports where there are fewer professional opportunities such as volleyball, the percentage is unknown. According to Volleyball Canada (2016) there are a total of 63 Canadian players playing professional volleyball all on overseas teams. Almost all of these athletes would have come from USports (formerly known as Canadian Interuniversity Sports [CIS]) as this is the most common path to gaining a professional contract. There is no data however to show how many professional volleyball players are from Ontario University Athletics (OUA). Although students who do not make it to a professional level have gained valuable experiences by being student-athletes that they would not have been gained if they had not been involved in athletics such as an increased level of career maturity, developing a sense of purpose (Kennedy & Dimick, 1987; Smallman & Sowa, 1996; Sowa & Gressard, 1983) and an increased satisfaction with their academic career (Umbach,

Palmer, Kuh, & Hannah, 2006), they are unfortunately left to retire from the sport, play recreationally, or play at a less competitive level.

There are many different avenues available for a former university volleyball player. If the former athlete wishes to try to stay very competitive and still try and play professionally, they can opt to play beach volleyball for Canada. There are still requirements and standards, such as a selection camp as well as performing at competitions, that the athlete will have to meet to achieve this level (Volleyball Canada, 2017). Another popular avenue for competitive play is cash tournaments. These tournaments are often populated with high-level players who are competing in the hopes of winning a cash prize reward. These are often run by independent businesses (Co-Edge Sports Club, 2017; ONE VOLLEYBALL, 2017; OUTTAHAND Inc, 2017). Municipalities also offer drop-in volleyball for a more recreational style of play. In the City of Toronto alone, 31 recreation centers offer drop in volleyball at various times for casual play (City of Toronto, 2016). For smaller cities and towns, there may be fewer opportunities to participate in leagues or drop in volleyball times. At the older adult levels, there is a competitive Masters level team Canada for the ages of 30-75 (Volleyball Canada, 2016).

As well, many opportunities exist to coach volleyball. The organization that runs volleyball in the province of Ontario is the Ontario Volleyball Association (OVA). The OVA is comprised of clubs from the various cities throughout Ontario. These clubs seek out coaches to coach their divisional teams ranging in age from 13 and under to 18 and under. Former university athletes are often sought for these positions as they have knowledge of the skills and tactics used in volleyball. While all coaches must have certifications under the National Coaching Certification Program, the OVA is committed to running coaching clinics for their coaches such as Development Coach workshops, Advanced Development workshops, and the

Performance Coach workshops (Ontario Volleyball Association, 2014). Given the multitude of opportunities available for former athletes to stay involved with volleyball after the ending of their university career, it is interesting to explore how these former elite athletes stay involved with the sport.

1.1 Benefits of Continued Involvement in Sport

1.1.1 Benefits of Participation in Sport

Post-varsity participation in sport is important for several reasons. The first is related to health reasons. A significant health risk to adults in life is stress. Stress in ones' life can cause depression, cardiovascular disease, and a weakened immune system (Cohen, Janicki-Deverts, & Miller, 2007). Physical activity, including sport participation, is often associated with lowering the risk of disability, preventing chronic conditions such as impaired body functions, and decelerating the aging process (Brown, McGuire, & Voelkl, 2008; Strobl et al., 2014).

Unfortunately, a sedentary lifestyle is common in Canada with two thirds of Canadians being physically inactive (Katzmarzyk, Gledhill, & Shephard, 2000). It was estimated that the cost of obesity and a sedentary lifestyle on the health care system in Canada could be anywhere between \$1.4 billion and \$3.1 billion dollars (Katzmarzyk et al., 2000). Manning, Keeler, Newhouse, Sloss, and Wasserman (1989) have demonstrated that external costs, such as those who drink, smoke, and are not active, can cost an individual upward of \$1.66 million dollars over the lifespan. Fortunately, leisure activity can help as a form of coping with stress and maintaining good health (Iwasaki & Schneider, 2003). By keeping former athletes engaged in their sport over the lifetime, not only does it brings down the cost of health related injuries, but also keeps the person happy as well (Sevick et al., 2000). There are also a variety of personal rewards that one might receive from continual participation in their leisure activity. These include: personal

enhancement including self-expression through skills, abilities, and knowledge already developed; maintaining their self-image as being a participant in the sport; self-gratification from superficial enjoyment as well as a deeper satisfaction from what they are doing; and lastly, regeneration of the self after a day's work experience (Stebbins, 2004).

1.1.2 Benefits of Coaching in Sport

One way to be socially connected to a sport is through the coaching of it. Social connectedness is defined as “the level of an individual’s integration into his or her social milieu and the fullness of the resulting associative networks” (Timpone, 1998, p 59). There have been numerous social scientists that have discussed the important psychological benefits resulting from a group association and connection with others (e.g., Baumeister & Leary (1995); Cohnen & Wills (1985); Linville (1987); Wann (2006)) (Hoye, Nicholson, & Brown, 2015). These authors suggest that feelings of identification with a valued social organization and groups in the development of a social network that provides psychological support result in a more mentally healthy individual (Wann, 2006), such as an increased sense of well-being and increased self-worth (Townsend & McWhirter, 2005). Coaching provides an avenue for all of these feelings as they are continually engaging within sport club network and passing on the knowledge that they learned to the next generation of athletes. In research papers looking at coaches expectations and beliefs, coaches ranked having fun, learning life skills, being part of a team, developing confidence, and experiencing the excitement of competition as the most important parts of coaching youth sports (Lesyk & Kornspan, 2000). These are often all items that a former athlete would miss the most and they can still gain those feelings by coaching.

1.2 Varsity Sport Participation in Canada

All university sports in Canada are run by the organization known as USports. First organized in 1906, it has undergone many organizational additions and changes including institutions joining and leaving, name rebranding, and partnerships (Canadian Interuniversity Sport, 2016). The main reason for the development of an organized league was the need for discussion on common issues applicable to athletics as well as be a communication agent among teachers, coaches, athletes, and researchers. As well, other areas of concern were the need for consistent and acceptable sport rules and regulations represented at national championships, mutually beneficial agreements with other national sport organizations, coordination of national and international events, and the assistance in developing leadership and citizenship of athletic staff (Canadian Interuniversity Sport, 2016). U Sports represents 56 universities, 12,000 student-athletes, and 7700 games and events per year (U Sports, 2016).

Of the 12,000 students, approximately 5000 are from the OUA (Canadian Interuniversity Sport, 2014). The OUA is the sport organization that runs all athletics in Ontario universities (Ontario University Athletics, 2016a). Its mission is to develop student-athletes through academics and athletics to achieve excellence in life (Ontario University Athletics, 2016a). First developed in 1906 in co-operation with U Sports, it is now comprised of 20 conference members (Ontario University Athletics, 2016a). Of the 20 member schools, 15 offer a women's university volleyball team and 14 offer a men's university volleyball team (Ontario University Athletics, 2016b).

In the USA, higher education institutions recognized their responsibility to provide a supportive environment and guidance for student athletes to succeed after graduation (Carodine, Almond, & Gratto, 2001). In 1991, the NCAA passed legislation that mandated all institutions to

provide academic counseling services to all student athletes either through the athletics department or by another university department (Abell, 2000). These services include orientation, academic advising and support, career and life skills development, and career planning and placement (Carodine et al., 2001). It is through these services where the student-athletes can learn about a healthy transition from their sport after graduation. In U Sports and the OUA, there is no such legislation for schools to have these types of service available for athletes. This then leaves schools to offer these programs on their own. If an athletic department does offer these programs, it may not be known to the coaches, who would then not direct athletes to them. Thus, if Canadian schools are not providing this service, student athletes may less likely to have a successful transition out of sport after they stop playing at the university level.

A variety of different topics related to graduated student athletes have been examined in the literature. Athletic identity has been a topic that has received considerable attention. Miller and Kerr (2003) identified a two-stage model of identity formation among student athletes from their entry to university until their graduation. This model identified that athletes are at first heavily devoted in their athletic role at the expense of other roles and exploration of self, then as they got older, there is a declining interest in their sport. When looking at female gymnasts, Houle, Brewer, and Kluck (2010) coordinated a two part retrospective study on athletic identity from adolescence through to the college years. They found that athletic identity was high until the athlete dropped the sport. Stephen and Brewer (2007) explain that this is normal as the former athlete is now dealing with items such as moving locations, probable employment, starting a family, as well as not having a coach defining them. Lally (2007) identified that to manage this loss of identity, different coping strategies were used. These strategies include

decreasing their prominence or not even participating in their sport and investing more in their future.

Researchers have also looked at quality of life adaption after elite sport participation. In Lavalle and Robinson (2007) qualitative study on female gymnasts, former athletes share interesting remarks. After retirement, the authors found that athletes are often met with feelings of being lost and helpless. Often the athletes felt as if they were no longer a person and were just dispensable. Even though they knew that they were done as an athlete, they often forced themselves to train more (Lavalle & Robinson 2007). When they did finally stop participating fully, the athletes felt lost, as after spending all their life doing gymnastics they had no idea what to do with themselves (Lavalle & Robinson 2007).

Other themes that have appeared in the literature include adjustment difficulties, financial and occupational problems, as well as healthy career termination (Patsourakou, 2010). Engaging in activities such as retirement planning can alleviate these difficulties and allow athletes to have more favorable emotions and coping behaviors (Stambulova, Stephan, & Japhag, 2007).

In 2004, over 60 of the most experienced volleyball coaches and administrators gathered in Toronto to discuss the current, future, and desired state of volleyball in Canada (Volleyball Canada, 2006). Following all the input during the meetings, a strategic decision was made to develop a long-term athlete development model (LTAD). The LTAD provides a logical, scientific approach to developing athletes for national team programs in different sports (Volleyball Canada, 2006). Although there are various stages for competition (See Appendix A), the LTAD for volleyball is about “volleyball for life” (Volleyball Canada, 2006, p.5). It allows athletes to experience training and competition programs that consider their biological and training age. By doing so, it helps promote a society of lifelong participation by emphasizing

sport's value in improving health and wellbeing (Volleyball Canada, 2006). The Active for Life stage is the final stage for all athletes (Volleyball Canada, 2006). In this stage, athletes are not training to compete at the Olympics or trying to win a world championship (Volleyball Canada, 2006). There may be a subsection of athletes that are still involved in competition, but most are participating in sport for personal satisfaction (Volleyball Canada, 2006). However, there is no section describing what "volleyball for life" is in the Volleyball Canada's LTAD document. This may be because it was just assumed that those who went through the LTAD method would just automatically continue participating with volleyball as they got older, but this may not be the case.

1.3 Implications of Study

Although there is no statistic for how many athletes stop participation in their sport after leaving their university team, fewer than 20% of Canadian adults attain satisfactory levels of physical activity considered essential for ideal health (Statistics Canada, 2015b). Thus, it is important to understand factors that might increase the likelihood of continued participation in sport over the life course. This study seeks to advance our knowledge both of how high-level team-based athletes engage in their sport after they are done competing at a high level, as well as factors that keep them engaged throughout their lifetime. This knowledge will be beneficial for the services (such as alumni relations and engagement) associated with the schools in the OUA, as well as sport organizations on how to keep participants engaged in their sport activities and what specific items they will need to keep them engaged, the development of future LTAD models for sports in the consideration of what happens after high performance sport, as well as developing services and avenues for former high-level athletes to continue to participation in volleyball.

1.4 Problem, Purpose Statement, And Research Questions

Relatively little is known about the factors that influence student-athletes' participation in their sport following leaving their university team. In other words, the mechanisms and psychological factors that might be involved in former varsity athlete's decisions to continue to be active in their sport has not been well established in the literature.

Thus, the purpose of this thesis is to explore factors that predict post-varsity sport-participation among a sample of former OUA volleyball players. Specifically, this thesis will explore relationships among enduring involvement (EI) (attraction, centrality, social bonding, identity affirmation, and identity expression (Kyle, Absher, Norman, Hammitt, & Jodice, 2007)); Quality of Sport Experience (opportunities to improve overall performance, exertion and fitness, release and diversion from everyday life, social aspects, people and staff involved in organizing your sport, ease of participating in your sport, facilities and playing environment, coaching, officials, value for money (Rowe, 2012)); Amount of time since leaving the team (the amount of chronological distance from when they left the team); and post-varsity participatory behaviors (playing or coaching volleyball).

Three research questions guide this thesis:

1. What is the relationship between the amount of time since leaving the team and frequency of volleyball participatory behaviours (playing and coaching)?
2. What is the relationship between the quality of the university sport experience and frequency of volleyball participatory behaviours (playing and coaching)?
3. What is the relationship between current EI facets (Attraction, Centrality, Social bonding, identity affirmation, and identity expression) and frequency of post-varsity volleyball participatory behaviours (playing and coaching)?

1.5 Hypothesized Model

This study seeks to test the following hypothesized model, which draws from the sport and leisure related literature. The model explores relationships between enduring involvement (attraction, centrality, social bonding, identity affirmation, and identity expression), time since graduation, quality of varsity sport experience, and volleyball participatory behaviors (Figure 1.1). Each of these constructs will be explored in more detail below and in the literature review.

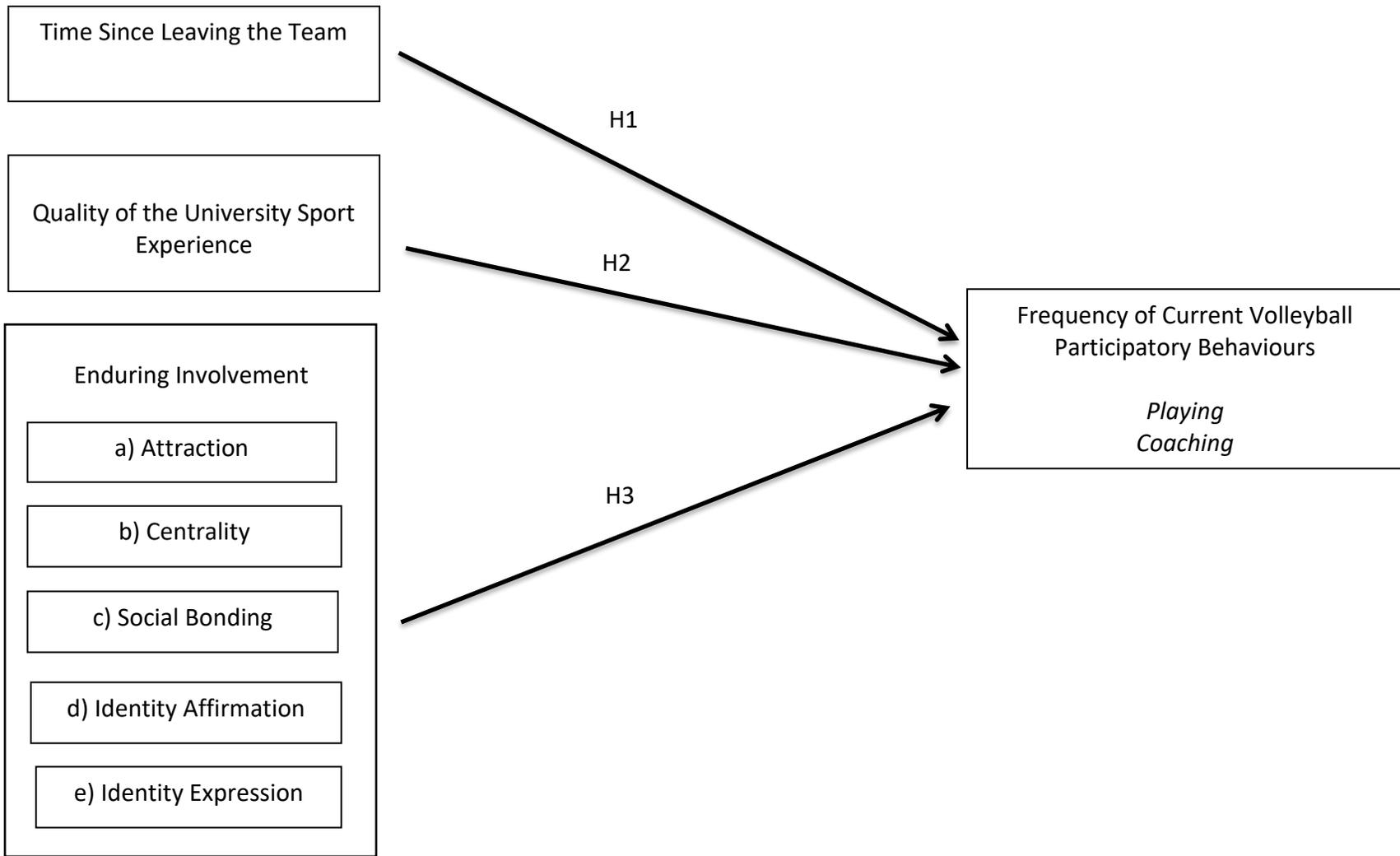


Figure 1.1 Hypothesized Model

H1: Time since leaving the team will be negatively associated with the frequency of current post-varsity volleyball participatory behaviours.

H2: Quality of the university sport experience will be positively associated with the frequency of current post-varsity volleyball participatory behaviours.

H3a: The Attraction facet of enduring involvement will be positively associated with the frequency of current post-varsity volleyball participatory behaviours

H3b: The Centrality facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours

H3c: The Social Bonding facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours

H3d: The Identity Affirmation facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours

H3e: The Identity Expression facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours

Each construct and relationship presented in the model will be explained in more detail in the following sections and in the literature review.

1.5.1 Age, Life course, and Participation in leisure

The participants age plays an important part in leisure participation. Age has always puzzled and fascinated researchers as well as the public when it comes to participation in leisure activities (Stockard, Carpenter, & Kahle, 2014). Also, a part of age is the stage of the life course of the participant. Examining these can perhaps show if you will be engaged in leisure participation, as well as how long you will carry out the participation. There are also many different theories and suggestions on how time plays out in our leisure life including ones that

focus on the experiences of leisure as we get older, as well as ones based on a person's life span. More about age and life course will be discussed in the literature review

1.5.2 Quality of University Sport Experience

Sporting experiences can vary greatly between two people. Underlying qualities of the sporting experience could influence decisions to continue or stop participation (Rowe, 2012). The quality of the sport experience is more than just the facilities and infrastructure; it is also about the subjective and emotional factors such as how are you feeling and how you are playing (Rowe, 2012). These subjective feelings include the opportunity to perform and improve, exertion and fitness, freedom from everyday life, social attributes, the people organizing the sport, and coaching (Rowe, 2012). For elite level athletes in university, they might have been in their sport for numerous years. It could be that the quality of their last few years of competing at a high competition level could determine if they will stay with their sport recreationally after competing at that high level.

There are some instruments that have attempted to get at the quality of the sport experience. There is extensive research looking at intrinsic and extrinsic motivation (Duda, 1989; Lochbaum & Roberts, 1993). Riemer and Chelladuri (1998) developed a tool for measuring athlete satisfaction in regard to internal satisfaction, coaching, and performance. Unfortunately, this is a fraction of the more holistic experience. A different instrument called the Physical Activity Class Satisfaction Questionnaire created by Cunningham (2007) assessed the satisfaction of physical activity in a student setting through nine dimensions. While close to a more holistic approach, it seems to focus more on individual sports rather than all physical activity. More about the quality of the sport experience will be discussed in the literature review.

When looking into the quality of the sport experience participants will be asked to recall from the past their memories and feelings of their sport experience. This is called retrospective research. There has been an argument for an increased use of different and varied theoretical methods used when looking at constructs (Snelgrove & Havitz, 2010). One of these ways is retrospective research. There is little collective research into retrospective research, or looking into the past, when it comes to quality of sport experience. More about retrospective research will be discussed in the methods section.

1.5.3 Enduring involvement

There is a growing body of literature that recognizes enduring involvement (EI) as a driving factor in continual participation in an activity. The concept was first developed in psychology (Allport, 1943; Allport, 1945; C. W. Sherif, Sherif, & Nebergall, 1965), then it made its way into consumer behavior literature (Krugman, 1965; Laurent & Kapferer, 1985; Zaichkowsky, 1985), and finally into recreation and leisure literature (Selin & Howard, 1988a; McIntyre, 1989; Havitz & Howard, 1995; Havitz & Dimanche, 1999; Kyle et al., 2007). It has now been suggested that EI is comprised of five different facets: attraction (the importance and pleasure of the activity), centrality (how central it is to their life), social bonding (the social ties that binds them to the activity), identity affirmation (the degree to which leisure provides an opportunity to affirm the self), and identity expression (the extent to which leisure provides an opportunity to express the self to others) (Kyle et al., 2007).

Previously published studies have been in all three domains of the recreation and leisure field. For example, in tourism the facets have been used to establish what drove tourists and backpackers to their destinations (Akatay, Çakici, & Harman, 2013; Chang & Gibson, 2015; Lu & Schuett, 2014). In the leisure area it has been used to look into why people were attracted to

leisurely activities and how they continued them (Lee, Pae, & Bendle, 2016; Mainland, 2010; Rochon, 2010). Finally, it has considered why people stay with sporting activities within a long time span (Havitz, Kaczynski, & Mannell, 2013; Tudor, 2014; Wood & Danylchuk, 2015).

1.5.4 Participatory behaviours

For the purposes of this study, participator behaviours refer to “practicing familiar skills” (Atchley, 1989). With regard to “practicing familiar skills,” current displays of volleyball (indoor volleyball and beach volleyball) behaviours include playing and coaching volleyball. Specifically, the number of days per week playing and coaching, the number of hours per session of playing volleyball and coaching, and the number of weeks that they played in a year will be examined.

1.6 Organization of the thesis

The thesis is divided into five separate chapters. The first chapter has provided background to the study and research questions, identified the purpose of the study, and introduced the conceptual framework for understanding the factors that influence continued participation. Chapter Two will discuss the literature relating to the various components of the study’s framework (See Figure 1). Chapter Three will discuss the sample, research design, and data collection procedures. Chapter Three will also present the survey instrument that will be used in this study and the research questions and hypotheses. Chapter Four looks at the results of the data that was collected. Finally, Chapter Five looks to interpret and highlight the findings from that data analysis

CHAPTER TWO: LITERATURE REVIEW

2.1 Outline of the chapter

This chapter will add to the concepts reviewed in Chapter 1 and will offer theoretical justifications for the hypothesized model. After discussing extant theories, a critique of the current literature will be made, and the hypothesized model of the thesis will be positioned within the participation in leisure and EI literature. An exploration of the constructs that make up the hypothetical model will then take place, examining how time since leaving the team, quality of the sport experience, and EI are linking with participation. The chapter will close with a summary of the concepts in association with this thesis' purpose and a presentation of the model introduced in Chapter 1.

2.2 Amount of Time Since Leaving the Team

Researchers have struggled understanding how leisure and sport participation changes and evolve over the life course (Crawford, Godbey, & Crouter, 1986; Dollman, 2010; Haugen, Säfvenbom, & Ommundsen, 2013; Iso-Ahola & Iso-Ahola, 1980; Kenter et al., 2015; Pfeiffer et al., 2006; Taliaferro, Rienzo, & Donovan, 2010). Research has shown that as one ages, their participation in leisure activities decrease (Kelly, 1987; Ross & Hayes, 1988). Gordon, Gaitz, and Scott (1976) found that participation went from 80% when aged 20-29, to a mere 20% when aged 79-94. In 2013, only 35% of males and 30% of females aged 18-39 met the Canadian Physical Activity guidelines, 18% of females aged 40-59 met the same criteria (males were too unreliable to report), and only 13% of males and 11% of females aged 60-79 met the same guidelines (Statistics Canada, 2015a). This is a great jump and demonstrates how age and life course is so important to leisure participation.

As human development is seen as a progression and change, this also suggests that one's leisure develops, adapts, and renews itself as well (Mobily, Lemke, & Gisin, 1991). Some researchers have proposed that a person's leisure life is a dialectical process in which the individual seeks out opposites of each other (stability and change, structure and variety, familiarity and novelty (Iso-Ahola & Iso-Ahola, 1980)). Other researchers believe that the leisure life-span approach is more based on continuity and change (Howe, 1987; Mobily et al., 1991). Both of these approaches will be explained in the following sections.

2.2.1 Consistency and Uniqueness of Leisure Activities

There is research to support that there is stability to leisure behavior in general (Crawford et al., 1986; Kornadt, Voss, & Rothermund, 2015; Scott & Willits, 1989) but by the same notion there seems to also be room for investigation for new experiences as well (Crawford et al., 1986; Kornadt, Voss, & Rothermund, 2015; Scott & Willits, 1989). It has been highlighted by studies done with outdoor recreation activities that one-half of adult leisure behavior stem from activities done in childhood and how participation in outdoor recreation as a youth is directly related to participation as an adult (McGuire & Dottavio, 1987).

Furthermore, tendencies toward consistency and uniqueness of leisure activities vary across the life cycle. Iso-Ahola (1980) theorized that the search for new leisure activities grows steadily from childhood to adulthood until it levels off and declines in late adulthood. This was then supported by Iso-Ahola, Jackson, and Dunn (1994) when they found that the tendency to seek out unique leisure activities declined with age, and the ability to maintain stability through activities that were old and familiar increased with life stages. High performance athletes are then in a unique position as they are often involved with just one sport throughout their childhood right through to their adult life. Being in adulthood, it would seem that because they

have been playing so long, that they would just continue to participate in volleyball no matter what the level. Perhaps though, that is because they have not had time to explore unique leisure activities and then they may move on from volleyball.

2.2.2 Lifespan perspective

It is suspected that physical activity at a young age has an effect on the level of physical activity in adulthood. There are three different thoughts on how this occurs. The ability and readiness hypothesis contends that earlier experiences of physical activities and sports and of the basic skills connected with them make it easy to maintain physical activity or start it again after a possible break, even though the type of physical activity may be different (Telama R, 2011). The notion of carry-over value means that activities in which people participate in adulthood should be acquired as early as possible (e.g., in physical education classes). The positive experiences and wide range of sports skills developed in childhood and adolescence could be seen as the groundwork for lifelong physical activity (Telama R, 2011). Finally, the self-selection hypothesis theorizes that those individuals who have a hereditary disposition to fitness or motor performance participate more often in physical activity both at an early age and in adulthood than those who do not have the same character (Telama R, 2011).

Lifespan is characterized by various important, temporally arranged transitions (Hirvensalo & Lintunen, 2011). These can include events such as early childhood to formal schooling, from childhood to adolescence, the transition from school to work, marriage, having children and the responsibilities with them, and finally retirement. Furthermore, these transitions can also create or influence new ones such as job changes, ecological and social and political events, and the occurrence of disease (Hirvensalo & Lintunen, 2011). Physical activity behaviour changes over the life course and individuals may add or get rid of those behaviours in

their life, but sometimes those changes may be gradual or they may change in these times of transition (Hirvensalo & Lintunen, 2011). Allender et al. (2008) found five significant life change categories: change in employment status, change in residence, change in physical status, change in relationship, and change in family structure. The analysis suggests that life change events affect participation in physical activity, generally decreasing participation except in some cases (becoming pregnant increased participation).

As demonstrated by the literature above, the amount of time since the person has left their university volleyball team can influence their current involvement behaviours in volleyball today. This can either be through the need to find other unique leisure activities, or if they have gone through any significant life transitions. It is hypothesized that a person's time since leaving the volleyball team will be negatively associated with the frequency of volleyball participatory behaviours.

H1: Time since leaving the team will be negatively associated with the frequency of post- varsity volleyball participatory behaviours.

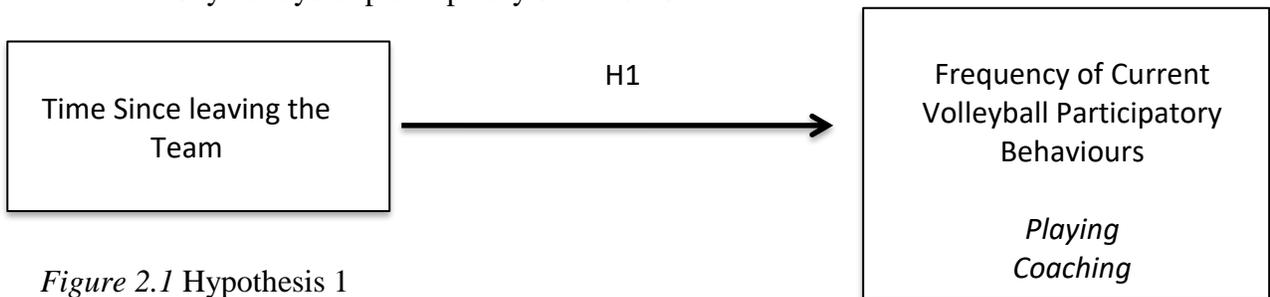


Figure 2.1 Hypothesis 1

2.3 Quality of University Sport Experience

There has now been a shift in policy in many institutions and sport organizations regarding an increase in the emphasis and value on the quality of the sporting experience that athletes and people involved in the sport have. In particular, “quality” has usually represented

physical aspects of participation such as equipment or the facility – rather than a more complete concept of the ‘total sporting experience’ (Rowe, 2012). It is now believed that in order to sustain a person in their sport, that person must have a high-quality sporting experience (Rowe, 2012). There are many distinct aspects to having a quality sporting experience. Based on qualitative research from Goretzki, Esser, and Claydon (2008), Rowe (2012) was able to uncover which dimensions have the greatest impact on the quality of a sporting experience. These are: opportunities to perform and improve, exertion and fitness, freedom from everyday life, social attributes, people organizing the sport, and coaching. Each of these dimensions are described below.

2.3.1 Opportunities to Perform and Improve

The ability to perform and improve is a prominent indicator of whether or not a person has had a quality sport experience or not. Performance is defined as “the emotional satisfaction of having played ‘well’ and put in credible effort, that is, achieved potential” (Rowe, 2012, p.162). Having opportunities to perform and also improve can be a powerful driver to pursue an activity. Looking into past theories, it would seem that Csikzentmihalyi (1988) theory of flow would be appropriate. When one’s skills are equally balanced with their perception of what there is to do, they are said to be in flow. If they are not equally balanced, then the person is less likely to follow through with the activity. When former players have stopped playing at the university level, their perception may be that anything lesser will not afford them the opportunity to perform and improve.

2.3.2 Exertion and Fitness

A positive experience is often associated with feelings that the person has put in some physical exertion (Rowe, 2012). This could mean bursts of physical energy by running, striking,

throwing, or it could mean having made it through a whole season (Rowe, 2012). This is to suggest that in order for a person to have a quality experience, they must have worked hard physically. In a study conducted on older adults in Australia, when asked about past physical activity involvement, there was a sense of joy in remembering the times they had (Jancey, Clarke, Howat, Maycock, & Lee, 2009). There are even some physical mechanisms for having this as a dimension of a quality sporting experience. When we exercise our body releases endorphins. These endorphins then lead to us feelings of well-being, resulting in improving our mood (Thorén, Floras, Hoffmann, & Seals, 1990). Perhaps without these endorphins releasing during exercise, it is harder for participants in a sport program to feel like there is quality to them.

2.3.3 Freedom from Everyday Life

Positive experiences with sport activities are more than likely to involve feelings of freedom from everyday life (Rowe, 2012). Life is filled with stress, whether it is from home or the workplace. There is often pressure to multitask multiple demands at once. The leisure we pick allows us to feel inspired and cope with these feelings (Iwasaki & Mannell, 2000). It is essentially a form of a time-out from our stressful everyday lives and allows us to feel refreshed, gain new energy, and regroup (Iwasaki & Schneider, 2003)

2.3.4 Social Attributes

Social attributes are often cited by participants as being a key aspect of whether or not an athlete had a quality experience or not (Rowe, 2012). Arguably, the social aspect of playing sports is root of the experience (Morgan, Sibthorp, & Wells, 2014). In Blais and Zerpa Pulido (1992) study, social life and leisure activities actually meant the same thing to them. By being together on a team an athlete can learn problem solving, communication, collaboration,

interpersonal skills, social skills, and time management skills (Tarricone & Luca, 2002). Being an athlete has many demands as stated earlier in this article. As an athlete, you are constantly with your teammates for the majority of these events. The presence or absence of specific teammates could matter in more adult volleyball. The experience of the team could be enhanced or diminished as various teammates arrive or depart. If an athlete feels that they do not have a social group they can learn and socialize with, they may have a diminished sport experience.

2.3.5 People organizing the sport

Good organization and coordination of people involved in the sport can be key drivers in providing a positive sport experience (Rowe, 2012). This could happen from an organization's structural capacity. Hall et al. (2003) defined structural capacity as "the ability to deploy the nonfinancial capital that remains when the people from an organization have gone home" (p.5). In a more general context, it is the way the organization's infrastructure draw on its relationships and networks to facilitate productive activity (Sharpe, 2006). For example, the school's athletics department, as well as the league, can influence an athlete's quality of the sports experience. The school's athletics department for example can make sure that practice times are agreeable with coaches and the needs of their athletes, provide adequate services for their athletes such as athletic therapy, academic help, and future planning. In Rowe (2012), former athletes cited that 'functional' drivers such as 'customer service' (staff attitudes, knowledge and ability) and 'hygiene factors' (quality of showers, changing rooms, toilets, towels) played a role in receiving a quality sporting experience.

2.3.6 Coaching

Many relationships are made while on a team. One of the most prominent and important relationships being between the athlete and their coach (Jowett & Ntoumanis, 2004). This

relationship is essential because it can dictate the athlete's satisfaction, self-esteem, and performance goals (Jowett & Meek, 2000a). There are often three distinct aspects that can benefit or detract from the coach-athlete relationship. These are closeness, co-orientation, and complementarity (Jowett & Meek, 2000b). Closeness refers to the emotional tone coaches and athletes experience during their athletic relationships. This includes liking, trust, and the amount of respect. Co-orientation is the degree of shared goals, beliefs, values, and expectations. Finally, complementarity refers to the type of interactions that the coach and the athlete are involved in. Some examples of this include the actions and feelings used to invite, pull, elicit, draw, entice, or evoke reactions from a person who you interact with. With evidence to support that athletes often seek support from people that they feel close to (Maniar, Curry, Sommers-Flanagan, & Walsh, 2001), this relationship cannot be understated when looking at the quality of an athletes' sport experience.

Based on the literature presented on the quality of sport experience, it is hypothesized that the quality of the sport experience will be positively associated with the frequency of volleyball participatory behaviours.

H2: Quality of the university sport experience will be positively associated with the frequency of post-varsity volleyball participatory behaviours.

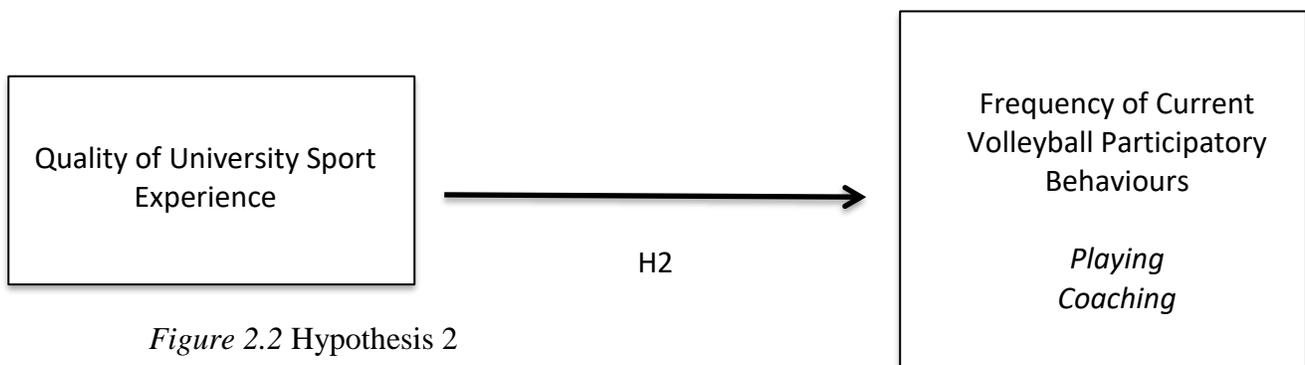


Figure 2.2 Hypothesis 2

2.4 Extant Theories and Models of Sport Participation

Former investigations into sport participation have yielded different theories and models. It is important to understand other models of sport participation as they also may offer different insights into the participation construct. The other models that will be explored are constraint theory, self-determination theory, and theory of planned behaviour. Although these inquiries have made valuable and notable contributions to sport participation literature, theoretical gaps remain still. This thesis attempts to summarize these gaps, which are addressed below.

2.4.1 Constraints

Jackson, Crawford, and Godbey (1993) defined constraints as “the factors that are assumed by researchers and perceived by individuals to inhibit or prohibit participation and enjoyment in leisure” (p. 273). Crawford and Godbey (1987) provided a theoretical base for understanding an individual’s decision-making process with leisure participation. Constraints were categorized into three different types according to the way that they influenced the association between the preference and participation in a leisure activity. The first constraint is interpersonal, which is the result of the relationship between an individuals’ characteristics (Crawford & Godbey, 1987) (see Figure 2.3). These constraints are often the product of a relationships with others. For example, the discussion of a leisure activity with a spouse may affect preference of activity, participation in the activity, or companionship in the activity.

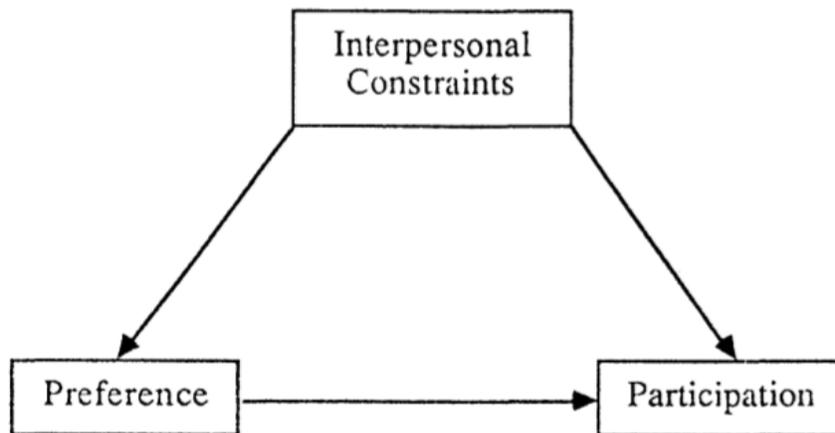


Figure 2.3 Interpersonal constraints relationship (Crawford & Godbey, 1987)

The second constraint is intrapersonal constraints (Figure 2.4). This involves individual psychological states and characteristics which connect with leisure preference rather than happening between preferences and participation (Crawford & Godbey, 1987). Some examples of an intrapersonal constraint are stress, depression, anxiety, perceived self-skill, and religiosity (Crawford & Godbey, 1987).

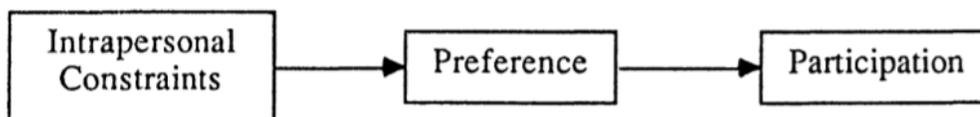


Figure 2.4 Intrapersonal constraints relationship (Crawford & Godbey, 1987)

The third constraint are structural constraints (Figure 2.5). Structural constraints are intervening factors between leisure preference and participation (Crawford & Godbey, 1987). Examples include family life-cycle stage, family financial resources, season, climate, scheduling of work, and availability of opportunity (Crawford & Godbey, 1987).

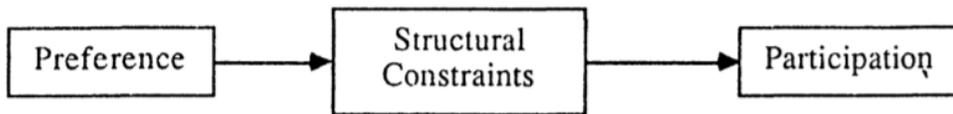


Figure 2.5 Structural constraints relationship (Crawford & Godbey, 1987)

The constraint model was then furthered into a hierarchical model (Figure 2.6) stating that intrapersonal constraints are encountered first, then interpersonal constraints, and then finally structural constraints (Crawford, Jackson, & Godbey, 1991). This was done for three reasons: that leisure participation is greatly dependent on a process of negotiating through multiple factors that are arranged successively, the successive ordering of the constraints represent a hierarchy or importance, and that the experience of constraints is relate to a hierarchy of social privilege (Crawford, Jackson, & Godbey, 1991)

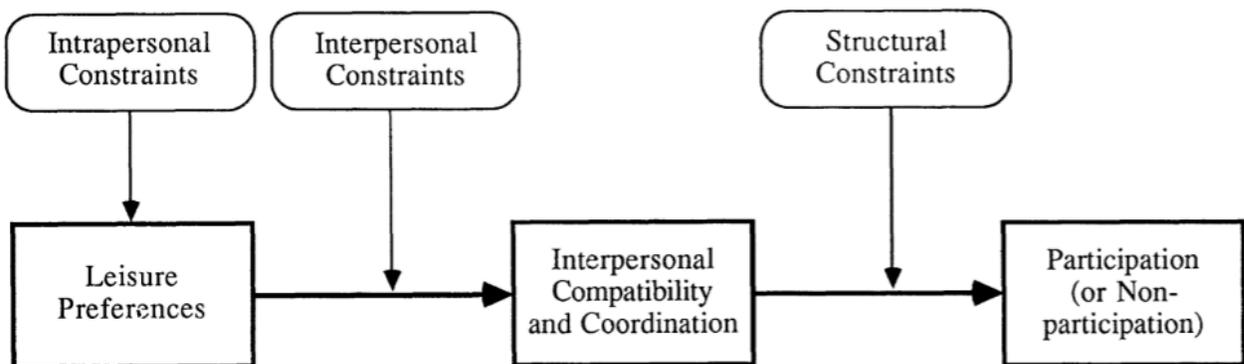


Figure 2.6 The hierarchical model of leisure constraints (Crawford, Jackson, & Godbey, 1991)

Constraints have been studied throughout many different situations and in many different countries. In a study of leisure participation in recreational sports programs in Greece, time-related constraints were reported to be the most intensively experienced, followed by the

facilities and services, and then accessibility and financial constraints (Alexandris & Carroll, 1999). Jun and Kyle (2011) attempted to see if leisure identity had a positive effect on the perceived constraints of current golfers. Consistent with other constraint studies, golf participation was negatively influenced by constraints, as well as the constraints increased as the person identified more as a “golfer” (Jun & Kyle, 2011). Drakou, Tzetzis, Mamantzi (2008) studied undergraduate students to determine constraints on physical activity. Their main reason for inactivity in university leisure programs was “lack of access,” followed by “lack of facilities” and “lack of company.” Finally, while looking at outdoor recreation, White (2008) also concluded that constraints negatively influenced outdoor recreation participation.

2.4.2 Self-determination theory and motivation

Over three decades worth of research has identified that one’s experiences when engaging in the same activity are vastly different when another person is doing the exact same activity. This largely has to deal with a person’s motivation toward the activity. Motivation refers to the forces that initiate, direct, and sustain human behaviours (Iso-Ahola, 1999). Stemming from Self-Determination Theory (Decj & Ryan, 1985), there are three distinct types of motivation that give rise to any actions that are taken (see Figure 6 for a full comprehensive view). The first is intrinsic motivation. This is where the person will perform a behavior voluntarily and in free of any rewards (Decj & Ryan, 1985). On the opposite side of this is extrinsic motivation. Extrinsic motivation is where the engaged behavior is a means to an end and not for their own sake (Decj & Ryan, 1985). Extrinsic motivation is also split up into three different categories. External regulation is the traditional view of engaging in a behavior for external rewards (Decj & Ryan, 1985). Introjection regulation are behaviours that are initiated and then regulated by internally controlling necessities such as guilt or anxiety (M. R. Blais,

Sabourin, Boucher, & Vallerand, 1990). Finally, there is identified regulation. In identified regulation the person has judged the behaviour as important and therefore performs it out of choice (Decj & Ryan, 1985). The person has valued the activity that they are participating in and perhaps even “identifies” with it. The last type of motivation is called amotivation. Amotivation is where there is a lack of motivation and the behavior is done for reasons that are neither intrinsic or extrinsic (Decj & Ryan, 1985). All the above types of motivation fall on different points along the self-determination continuum.

There are also three different psychological needs that are important for engaging in human action according to self-determination theory (Decj & Ryan, 1985). These are the need for autonomy, competence, and relatedness. These psychological factors are proposed to impact motivation through cognitive process. As well, self-determination theory suggests that social factors and the social environment (e.g.: how other people behave towards us, social values, culture), can positively and negatively influence some of these psychological mediators.

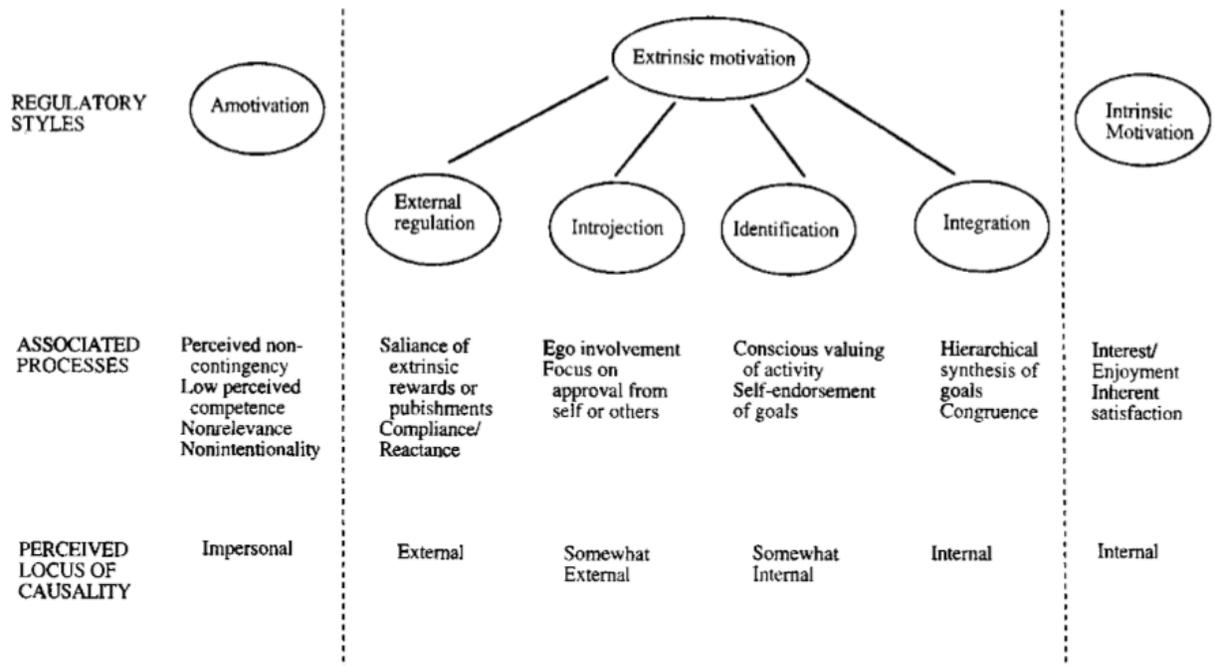


Figure 2.7 Ryan and Deci (2000) taxonomy of human motivation

Self-determination theory in recreation and leisure has been studied in different contexts. Vlachopoulos, Karageorghis, and Terry (2000) used self-determination theory to investigate the motivational profiles that underlie sport participation in adults as well as to describe the relationships between these profiles and the motivation consequences. It was found that two different motivational profiles emerged. The first was depicted by both high nonself-determination and high self-determination (Vlachopoulos et al., 2000). The second one was the typical self-determination profile consisting of low nonself-determination and high self-determination (Vlachopoulos et al., 2000).

In College athletes and coaches, self-determination theory was utilized to determine if competence, autonomy, and relatedness mediated the relationship between perceived coaching

behaviours as well as the intrinsic motivation of the athlete (Hollembek & Amorose, 2005). The results suggested that three of the athlete's needs were positive predictors of the athletes' motivational orientation (Hollembek & Amorose, 2005).

In Iran, a study using self-determination theory looked at student athlete's intentions on whether or not they would continue their sport in their future school semesters. It was found that there was a positive intention to continue their sport in the following semester/months based on the positive relationship between task orientation and intrinsic motivation meaning that the participation in sport was based on interest and pleasure (Keshtidar & Behzadnia, 2017).

Barkoukis, Lazuras, Tsorbatzoudis, and Rodafinos (2013) used self-determination theory to look at elite athlete's intention to dope in sport. What was found was that moral orientations were found to be the greatest predictor in seeing whether an athlete would dope or not. When looking at cyclists and their commuting intention, Lois, Moriano, and Rondinella (2015) demonstrated that the cyclists' intention increased when the incorporation of self-identity was with within the self-determination theory. Although it could be argued that the self-identity is part of a person's attitude, the intention to commute while cycling was still there.

2.4.3 Theory of Planned Behaviour

Another theory that can be used to explain leisure participation is the theory of planned behaviour (TPB). TBP deals with the explanation of human behaviour toward participation in an activity, and the individual's intention to perform the behaviour (see Figure 7) (Ajzen, 1991). A person's intention is assumed to include their motivational factors for doing the behaviour.

Generally speaking, the stronger the person's intention to engage in the behaviour, the more likely the behaviour will happen. A person's intention is influenced by three aspects: perceived behavioural control, subjective norms, and attitude toward the behaviour (Ajzen, 1991).

Ajzen (1991) defines perceived behavioural control as “the perceived ease or difficulty of performing a behaviour” (p. 188). He defines subjective norms as “the social pressure to perform or not to perform the behaviour” (p. 188). Lastly, he refers to attitudes as “the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question” (p. 188). Perceived behavioural control is one of the strongest ways to predict behavioural achievement (Ajzen 1991). This is due to two reasons. The first reason is that because of the effort expended to bring the course of behaviour to a successful conclusion, therefore the intended behaviour is more likely to increase with the perceived behavioural control (Ajzen 1991). The second reason is that perceived behavioural control can often be used as a substitute of the actual control of the behaviour (Ajzen, 1991)

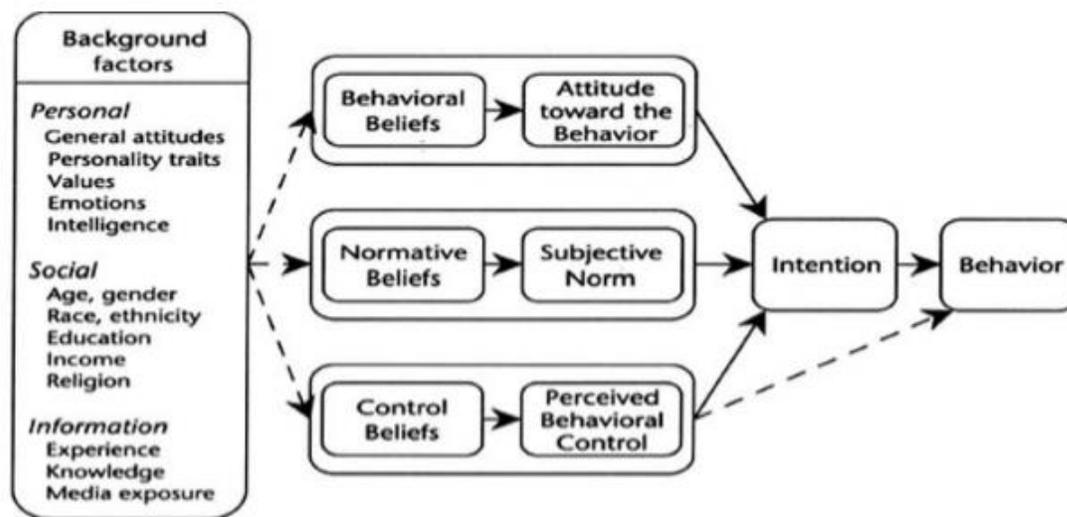


Figure 2.8 The theory of planned behaviour. Adapted from “Predicting and changing behaviour: A reasoned action approach” by I. Ajzen and D. Albarracin, 2007, p.6. Copyright by Lawrence Erlbaum Associates

The theory of planned behaviour has been used in recreation and sport research since its development. In a study of high school students in Malaysia it was used to understand the factors that influence participation in recreational sports (Chuan, Yusof, Soon, & Abdullah, 2014). It was found that there was a significant relationship between attitude factors and subjective norms

with the intentions of participating in recreational sports, and suggested that intervention measures to try and increase participation (Chuan et al., 2014).

Potwarka (2015) examined the theory of planned behaviour in the context of the 2010 winter Olympic games held in Vancouver to understand the motivational factors behind an individual's intention to become more active. The results showed that people are willing to increase their activity levels in response to the Olympic Games and also perceived the event as an opportunity to enhance their personal well-being. However, hosting the Olympics might not be enough to motivate people to become more active. The results of the theory of planned behaviour research here demonstrated that promotional efforts are also needed to be effective in an overall behaviour intention strategy.

2.4.4 Summary and critique of extant theories

The models above have had their successes in trying to explain why people do or do not participate in leisure activities. Each of them also have their weaknesses. In constraint theory, many different questions have arisen from critics such as “*are constraint models culture bound,*” “*would removing all constraints to leisure be possible and desirable,*” “*does the leisure constraint model “start” with interpersonal constraints,*” “*does the leisure constraint model only apply to leisure behaviour and all leisure behaviour,*” and “*is the concept of leisure constraint too general*” (Godbey, Crawford, & Shen, 2010). Others have felt the whole model “decontextualizes leisure” and portrays the negation process as “similar to how a canoeist might negotiate boulders in a river, by maneuvering to get around them” (Samdahl, 2007, p. 412). A theory that has been proposed recently as an alternative theory to leisure constraints is the *competing priorities* developed by Lamont and Kennelly (2011) where an individual with limited resources can “control that can be used to resolve the demands placed on him or her” (Robbins,

S., Judge, T., Millett, B., Walters-Marsh, T., 2008, p. 698). Self-determination theory now has five mini theories inside of the ones that were presented (Ryan & Deci, 2000), causing multiple different theories to be used when trying to explain a person's motivational factors in participation. While the Theory of Planned Behaviour struggles with capturing the time sensitive nature of intention-behaviour relationship as well as not addressing that that intentions can change because the context changes (Sutton, 1998).

For this study, enduring involvement is employed to explain how participants stay engaged in their leisure pursuit. The theories and models stated above investigate how people start participating in an activity. Within the sample population of interest in the present thesis (i.e., former OUA varsity volleyball players), they have already been participating and may or may not still be continuing to participate. Thus, for the purposes of the present research, it is important to consider more enduring characteristics of participation not captured in the extant theories described above. Enduring involvement facets will not only look at how involved in the activity they are, but the construct also incorporates some aspects of the theories described above, such as how much they would like to do the activity, their motivation to do the activity, and their beliefs toward the activity. The development of enduring involvement construct will be discussed in the following sections.

2.5 Conceptual Development of Enduring Involvement

Theorizing and measuring enduring involvement has been a long and arduous process over the past 50 years. Many social psychologists as well as consumer behaviour researchers have attempted to define and measure the construct. Each field of research has put forth different definitions for what involvement involves (Table 2.1).

Table 2.1

Previous definitions of the enduring involvement construct per year and field

<u>Author</u>	<u>Field</u>	<u>Definition</u>
Allport (1943)	Psychology	“A condition of total participation of the self – as a knower, as organizer, as observer, as status seeker, as socialized being” (p. 459)
Sherif and Cantril (1947)	Psychology	“[A]ttitudes that determine the more or less enduring character of one’s personal identity with the values or norms incorporated in him.... when they are at any time consciously or unconsciously involved in a psychological function, we become personally involved” (p.4)
Woods (1960)	Consumer Behavior	The degree to which a customer identifies with a product (p.17)
Krugman (1965)	Consumer Behavior	“[T]he number of conscious “bridging experiences,” connections, or personal references per minute that the view makes between his own life and the stimulus” (p.355)

The common thread that ties all of them together is the personal relevance involved between the person and the activity they are participating in (Allport, 1945; Krugman, 1965; Petty & Cacioppo, 1979; M. Sherif & Hovland, 1961; Woods, 1960). Houston and Rothschild (1978) first developed the term of enduring involvement (EI), putting forward that it is a function of an individual’s past experience with a product and the products significance to the individual’s values. Bloch (1981; 1982) and Bloch and Richins (1983) extended Houston and Rothschild’s (1978) research by also adding that it is a stable trait that represents an individual’s degree of interest or arousal for a product on a day-to-day basis. Richins and Bloch (1986) offered that an individual’s level of enduring involvement is motivated by the degree to which the product or experience relates to the self/or the pleasure people receive from engaging in the activity.

Celsi and Olson (1988) expanded the construct of EI. To them, an activity was considered personally relevant to the degree that a recreationist notices it to be self-related or in some way contributory in achieving their personal goals. Additionally, the personal relevance of an activity is characterized by the perceived relationship between an individual's goals, needs, or values and their knowledge of the activity. The enduring property develops when there is a similarity between personal needs, goals, and values and the attributes of an activity. Adding onto the personal relevance thread, Celsi and Olson (1988) proposed that when personally relevant information is stimulated in memory, a motivational condition is aroused and is often demonstrated in overt behaviour (e.g., participation, search behaviour, affiliations, memberships). McIntyre (1989) explored this phenomenon in a recreation-based context. Specifically, the author explored the level of commitment to camping and choice of campground. The author found that level of enjoyment in the activity and its importance to the person's lifestyle were mildly predicting in the choice of what a person would do, echoing what Celsi and Olson (1988) had suggested.

In leisure-related research, enduring involvement has been used as a framework for explaining leisure behaviours such as participation (Bloch, Black, & Lichtenstein, 1989), specific preferences to their leisure activity (Gahwiler & Havitz, 1998), and specific preferences related to leisure delivery (McCarville, Crompton, & Sell, 1993). Selin and Howard's (1988b) work examining EI and leisure behaviour took Celsi and Olson (1988) definition and made it applicable to leisure studies. EI was defined as a "state of identification existing between an individual and recreational activity, at one point in time, characterized by some level of enjoyment and self-expression being achieved through the activity" (p.237). Havitz and Dimanche (1997; 1999; 1990) also built upon Rothschild (1984) work and came up with a

definition that is widely accepted and used in the field of enduring involvement research today, that is EI is “an unobservable state of motivation, arousal or interest toward a recreational activity or associated product. It is evoked by a particular stimulus and has drive properties (adapted from Rothschild, 1984).

Indeed, this research has spread throughout all different fields of recreation and leisure to better understand why people stay involved in their activities. Now that there is a consistent definition of enduring involvement, there was a struggle as to how to properly measure it.

2.6 Enduring Involvement Scale Development

Two schools of thought emerged regarding how to develop a scale to measure enduring involvement. On one side, there are the researchers who think that enduring involvement should be developed with a single factor in mind (e.g., Zaichkowsky, 1985), and on the other side there are researchers who believe that enduring involvement is multifaceted (e.g., Laurent and Kapferer, 1985; McIntyre, 1989; Kyle and Chick, 2004; Kyle et al, 2007).

2.6.1 Single Factor versus Multifaceted Development

Zaichkowsky (1985) is credited for being the first person to comprehensively develop a multiple item single factor scale for enduring involvement. This was response to the different applications of the term “involvement.” Each of the three areas of consumer behavior research applied it differently to their research. This was troublesome as each one could have its own state of being “involved”. In general, involvement has been measured by using statements that were thought to tap into the underlying concept (Zaichkowsky, 1985). These pose problems for three reasons. One is if conflicting results are gathered, there is no way to know if the discrepancy is due to different measures or to different behaviors. Secondly, many of the scales are single item measures and may not capture the total involvement concept. Finally, single-item measures have

low reliability and at the time the current multiple-item measures had not been tested for internal reliability, stability, or validity (Zaichkowsky, 1985). The scale that was then developed consisted of questions from three categories: personal, physical, and situational and was also considered to be semantic differential. Each item was measured on a seven-point scale and the descriptors could easily be related across every domain. It was called the Personal Involvement Indicator (PII) (Zaichkowsky, 1985).

Two years later, McQuarrie and Munson (1987) decided to revise the PII to make it reflect evidence that had been presented on the multi-faceted side of this argument. The changes ended up shorting the questionnaire, improving its validity and reliability. It was shortened because of the necessity to reduce respondent fatigue when collecting data as well as making it easier to read for people who may not have higher education and can therefore understand it better (McQuarrie & Munson, 1987).

There were also researchers who believed that EI was multi-faceted. Laurent and Kapferer (1985) were the first researchers to develop a scale that reflected enduring involvement as being multi-faceted. The term multi-faceted means that there are multiple operational indicators in the construct. Instead of just looking at whether one was just involved or not involved, Laurent and Kapferer (1985) examined all the different ways. In the end, five different facets of involvement were developed by the authors: (1) *Importance* - the interest in, or perceived importance of the product; (2) *Pleasure* - the hedonic pleasure values of the product, its emotional attraction, and ability to provide pleasure and effects; (3) *Sign* - the symbolic or sign value attributed by the consumer to the product, its purchase, or its consumption; and (4) the perceived risk associated with the product purchase. Two sub dimensions of risk included *Risk Importance* - perceived importance of negative consequences in case of poor choice, and *Risk*

Probability - the perceived probability of making such a mistake. The *importance* facet looked into the similarity between the consumers' goals and the extent to which a specific product meet these goals (Laurent & Kapferer, 1985). The *pleasure* facet examined the extent to which the consumers derived pleasure and emotion from their product (Laurent & Kapferer, 1985). The *risk probability* facet examined the perceived probability of making a poor choice, where the *risk consequence* facet examined the importance of negative consequences in case of a poor choice (Laurent & Kapferer, 1985). Lastly, the *sign* facet analyzed the similarity between the perceived identity of the product and the consumers own identity (Laurent & Kapferer, 1985). This scale was then called the Consumer Involvement Profile (CIP) (Laurent & Kapferer, 1985).

McIntyre (1989) made some notable alterations to Laurent and Kapferer's original scale. It was identified through reliability testing that an item measuring the importance of the activity and pleasure through participation were highly correlated with each other. As a result, McIntyre (1989) decided to combine these together to create a single facet named *attraction*. He also dropped the risk items and instead chose to include a facet called *centrality* based on the work of Wellman et al. (1982) that used the "centrality to lifestyle" dimension that was an important component for understanding the personal meaning of the activity. The third change that happened was that he renamed the *sign* facet to *self-expression*. The risk factors were removed as they were known to have the lowest consistency. Havitz and Dimanche (1997) hypothesized that one reason may be is that the risk items are over simplistic. This is to suggest that risk itself might be multi-faceted and the CIP scale has little capacity to reliably measure risk because of its various forms.

Kyle and Chick (2004) were the first researchers to examine enduring involvement from a qualitative research perspective, while also evaluating the unidimensional vs. multifaceted

argument. To investigate informants enduring involvement with their camping experience, they used a narrative inquiry. This method was used as they wanted to gather insight into the individuals' relationship with activities over their lifetime that survey-research could perhaps not reach. It involves the use of stories related to the experience and finding the commonalities between them. The authors found that enduring involvement depended on six different components, affirmation of family and friends, satisfaction with family and friends, development of children, interaction with others, and location. Two of the six constructs that were found were both absent from both Laurent and Kapferer (1985) and Zaichkowsky (1985) scales. Kyle and Chick demonstrated that qualitative measures were necessary for uncovering additional components for enduring involvement

The CIP worked well to capture consumers' perceptions of personal relevance relating to several consumer goods (Kyle et al., 2007). In leisure behaviour domains, it was often heavily modified for use (Dimanche, Havitz, & Howard, 1991; McIntyre, 1989). Taking from McIntyre (1989), Laurent and Kapferer's (1985), and Kyle and Chick (2004), Kyle et al. (2007) created an updated enduring involvement scale. This scale was called the Modified Involvement Scale (MIS). The MIS is composed of five different dimensions: *attraction (The importance and pleasure derived through participation [McIntyre, 1989])*, *centrality (The degree to which an individual is attached to an activity [McIntyre 1989, Wellman et al. 1982])*, *social bonding (The social ties to a specific activity [Kyle & Chick, 2004])*, *identity affirmation (The degree that leisure provides opportunities to affirm the self to the self [Kyle et al. 2007])*, and *identity expression (The extent that leisure provides opportunities to express the self to others [Kyle et al. 2007])*. Combining and removing certain categories from the other scales created these final facets. When used for the first time with campers visiting Santee Cooper Country, it was found

that this scale was both reliable and valid. The different combinations of involvement items in the five different dimensions had been shown to be accurate in measuring a person's involvement in an activity. For this study the MIS will also be used.

2.6.2 The Modified Involvement Scale (MIS) facets of Enduring Leisure

Based on the past 15 years of empirical testing, the *attraction* facet was kept as it received the strongest reliability and mean scores. From Kyle and Chick (2004) qualitative work, it was suggested that that a social component was a part of *centrality*. They concluded that future researchers should incorporate a *social bonding* dimension within their operations that can capture the social ties to the leisure experience. In some leisure contexts, personal relationships can also exert a strong influence on an individual's thoughts, feelings, and behaviors related to specific activities (Kyle et al., 2007). This was illustrated by Choi et al. (1994) where they observed that participation rates among fishermen varied by the type of people they were around (e.g. friends or family). Therefore, when developing the MIS Kyle et al. (2007) chose to separate *social bonding* from *centrality* to make it its own facet.

Kyle et al. (2007) also decided to split the *sign* dimension into two components: *identity affirmation* and *identity expression*. Identity affirmation is the degree to which leisure provides opportunities to affirm the self to the self, while identity expression is the extent to which leisure provides opportunities to express the self to others. This decision was made because of the evidence that individuals are able to construct situations that provide them with information that affirms their identities unto themselves and provide other with this information that also allows them to understand the individual more accurately (Dimanche & Samdahl, 1994; Kyle et al., 2007). Haggard and Williams (1992) also observed that when college students associated discrete identities and images with certain leisure activities. As well, it was witnessed that the

students' leisure preferences could be predicted by their desire for the leisure identity images associated with the specific activity (Haggard & Williams, 1992).

In summary, the MIS consists of five facets. First, the *attraction* dimension was kept in place due its having the strongest reliability and mean scores with enduring involvement. Second, as suggested by Kyle and Chick (2004), *social bonding* has been made into a separate facet from *centrality*. *Social bonding* refers to the social ties that bind recreationists to specific activities (Kyle et al., 2007). Distinguishing both the symbolic and expressive elements of enduring involvement, the two facets *identity affirmation* and *identity expression* are used. *Identity affirmation* looks at the degree to which leisure provides opportunities to affirm the self to the self, and *identity expression* examines the extent to which leisure provides opportunities to express the self to others. See Table 2.2 for a summary of each facet and its definition.

Table 2.2
Enduring Involvement facets and definitions

<u>Facets</u>	<u>Definition</u>
Attraction	The importance and pleasure derived through participation (McIntyre, 1989)
Centrality	The degree to which an individual is attached to an activity (McIntyre 1989, Wellman et al. 1982)
Social Bonding	The social ties to a specific activity (Kyle and Chick, 2004)
Identity Affirmation	The degree that leisure provides opportunities to affirm the self to the self (Dimanche & Samdahl, 1994; Kyle et al. 2007)
Identity Expression	The extent that leisure provides opportunities to express the self to others (Dimanche & Samdahl, 1994; Kyle et al. 2007)

2.7 Applications of the MIS in Leisure, Tourism and Sport Domains

Recent research has made use of, or has used parts, of the MIS in the leisure realm, and it has offered interesting insight in enduring involvement with leisure-related activities. Mainland's (2010) study of martial arts clubs in the Kitchener and Cambridge, Ontario area explored the following questions: 1) do higher levels of martial arts participation and higher identity formation scores predict higher levels of psychological, social, and physical well being and; 2) to what extent do the concepts of serious leisure, motivation, and involvement relate and exert the greatest influence to both martial arts participation and well being. The author found that involvement facets were strongly correlated with motivation, serious leisure, and spirituality. All five dimensions of involvement had a positive and statistically significant relationship with

martial arts participation scores. Specifically, centrality and identity expression were linked to tenure scores (Mainland, 2010). Longer time periods of participation tended to be associated with training as it took a more central stance in the daily life of the participant. In general, this finding suggests a direct relationship between psychological, social, emotional, and spiritual levels of leisure experience.

Rochon (2010) studied enduring involvement and place identity with fish giggers in the Missouri Ozarks (gigging is the act of fishing by impaling fish with a metal prong attached to the end of a long pole). The aim of the study was not only to obtain baseline demographic data and activity preferences, but also to evaluate the efficacy of two different conceptualizations of activity involvement and place attachment. It was revealed that the centrality facet was overall one of the highest facets indicating that the fish giggers' involvement is driven by socialization and pleasure, rather than an extension or expression of who they are (Rochon, 2010). What also really stood out was that activity involvement followed an arc. The results indicate that there were significant differences found in the attraction and centrality facets when the fish giggers were grouped by experience, with the largest positive change coming from groups with 0-11 years of experience and their peak at 12-22 years of experience (Rochon 2010). This study shows that involvement in an activity over time may be driven more by socialization and that one's participation in an activity follows an arc like path.

In a regional study of Waterloo, Ontario residents, Havitz, Kaczynski, and Mannell (2013) wanted to provide an indication of the links between the construct of involvement as well as determine if segments of participants with unique involvement profiles could be identified. The results showed that in fact there were four significantly different groups from each other on all five dimensions. There was a "high" involvement group, two "middle" involvement

groups, and then a “low” involvement group. Further analysis of these groups indicated that the scores on all the variables seemed to fluctuate in unison across the groups (Havitz et al., 2013). These findings showed that physical activity-based leisure involvement appears to have four distinct groups and that the facets across the groups behave similarly to one another.

A recent study looking at the facets within the MIS is done by Lee, Pae, and Bendle (2016). The objective of the study was to develop a social psychological model that explains participation at the Busan International Film Festival by looking at identity salience (IS) using enduring involvement, psychological commitment (PC), and social norms (SN). The authors’ findings showed that all the facets of EI were significant in predicating IS. The more pleasure that one derived from the film festival, the stronger his/her self-identity is based on participation (Lee et al., 2016). The more central to the participant, the more the participant self-identified with the festival (Lee et al., 2016). This finding demonstrates that self-identity is an important factor in the self-defining and self-realization process of a leisure pursuit.

The MIS has also been used in part with tourism research. For example, Loureiro, Almeida, and Rita (2013) looked at involvement, emotional response, and overall tourism satisfaction at 20 different Portuguese health and wellness spas. The centrality and self-expression facets were used to measure self-concept and individuality through participation in spa activities. The authors found that the more customers perceived that spa experiences as playing a central role in their lifestyle and conceive their spa experiences as channels for expressing themselves, the greater the pleasure and relaxation felt. This finding indicates that involvement is likely to increase with a favorable evaluation about the experience.

When looking at enduring involvement with backpackers in regards to preparation before their trip, Akatay, Çakici, and Harman (2013) used the MIS to measure the different facets. What

was found was that the participants that described themselves as backpackers were more emotionally attached to backpacking than those defining themselves as tourists. As well, younger and experienced participants enjoyed backpacking because of social norms. Level of involvement was found to directly affect an individual's information search behavior for their activity.

Lu and Shuett (2014) wanted to explore the motivational domains for joining outdoor recreational voluntary associations as well as examine involvement as a mediator and moderator in the mechanisms presumed to underlie a positive relationship between initial motivation and volunteer experience. Although they used McIntyre and Pigram's 1992 scale, it is still comprised of attraction, centrality, and self-expression. Results indicated that attraction was the main force that drives members to become psychologically involved in an organization. The perceived importance of an organization to a particular individual and the hedonic value derived from the group also tends to have more influence on an individual's involvement profile. Centrality also played an important role in influencing volunteer experience. The more central the activity is the more likely they will participate in voluntary activities.

Finally, the MIS has been used to understand participation in sport-related activities. For example, in a project looking at skiers, Dawson, Havitz, and Scott (2011) analyzed the influence that changing climatic conditions had on substitution behaviors, how involvement plays a role in influencing behavioral adaptations, and the extent to which place loyalty is affected. In total, 1167 surveys were analyzed from six different ski resorts. Their results exhibited that there were three clear groups of involved people. High, medium, and low involved. In particular, Dawson et al. (2011) suggested that there were three stages that a person would have to go through to become from a uninvolved skier to a very involved skier. The first stage is that there is a high

level of physical involvement, the second stage is the establishment of a psychological commitment, and the third stage the maintenance of a strong attitude toward resistance to change preferences (Dawson et al., 2011). They also found a relationship with age and involvement. For instance, the 18-24 and 60+ groups were more engaged; the 18-24 group rated identity expression significantly higher; while the 60+ group had higher centrality and social bonding scores (Dawson et al., 2013). Thus, one can conclude that a participant's facets change over the life course meaning they may stay involved for different reasons.

Gibson and Chang's (2012) research explored cycling with the goal of answering five questions; are there significant differences in enduring involvement in cycling between mid and later life participants, do male and female participants differ in their levels of enduring involvement, do mid and later life participants differ in benefits sought from the cycle tour, do male and female participants differ in benefits sought from the cycle tour, do benefits sought differ among participants by enduring involvement level in cycling and lastly are there differences in involvement levels, life stage, and gender on benefits sought from the cycle tour. After analyzing 498 surveys from participants of Bike Florida, their results showed that only attraction had significance on benefits sought. Attraction was also rated the highest, followed by self-expression, and then centrality. Interestingly enough there were also no gender differences in the level of enduring involvement.

Ding and Schuett (2013) investigated the relationship between motivation and enduring involvement in the context of rock climbing. Motivation was conceptualized using Ackerman (2006) scale of five factors that rock climbers desire to participate. Using the Havitz and Howard (1995) modified CIP scale, the survey was distributed at the Yangzhou climbing festival. The authors found a positive correlation between motivation and enduring involvement. Rock

climbing provided participants with an excellent opportunity to express their own personality, gain a sense of self confidence, experience new things, and to escape from everyday life (Ding & Schuett, 2013).

Wood and Danylchuk (2015) examined whether involvement is predicted by constraints, and constraint negotiation strategies. Two hundred and thirty seven students in a large university in Canada were surveyed using the MIS. The students ranged from different programs and many competed in a range of one to seven intramural sports. The authors found that intramurals provided them with an opportunity to affirm their identity and continue to develop social bonds with others. Participants reported levels of low centrality, meaning intramurals were not central to their lives. Being able to find others to participate with was an important predictor for social bonding, identity affirmation, and identity expression (Wood & Danylchuk, 2015). Structural constraints such as financial costs, work commitments, and availability of opportunity to participate negatively affected attraction and identity affirmation (Wood & Danylchuk, 2015). Interestingly, time management strategies could predict the outcome of all the facets.

In recent study looking at former collegiate cross country runners' enduring involvement after college participation over the course of every year, Vogal and Havitz (2014) categorized former runners into eleven unique enduring involvement profiles. These were collegiate peak (EI peaked in college), lifetime high (high EI every year), post-collegiate valley (high during competing, very low right after competing, but then jumps back to high), tempered decline (slow decline of a high EI), pre-collegiate peak (decline of a high EI), low and steady (low EI that gradually increases slightly), collegiate peak with recovery (peaked EI during college with a sharp dip after with a recovery), delayed drop (steady EI after college for some years, but then drops), steady climb (EI rises significantly after college), collegiate plateau (EI plateau's in

college), and lastly post-collegiate peak (EI peaks after college). This study demonstrated that enduring involvement was different from person to person and that perhaps these profiles can help researchers better understand people participating in sport after already participating at a high level.

2.8 Gaps in Previous MIS research

One gap that has been consistent is the population that being explored. There are virtually no studies considering the enduring involvement of former players of university athletic teams. Not only that, these players also played at one of the highest levels of sport in Canada, which makes them a truly unique case to explore. By playing at one of the highest levels, it should be interesting to see how they have continued, or not continued, playing their sport.

Another gap this present study will be looking at is the nature of the activity. Volleyball is unique in that it is truly a team sport, requiring a minimum of five people to play. The majority of present studies (e.g. Ding and Schuett 2013, Gibson and Chang 2012, Dawson et al. 2013) have been based on individual sports or sports that you could perform with just one person (cycling, soccer, rock climbing). This may pose a different set of challenges for the person regarding enduring involvement and may bring up unique and interesting insights.

Thus, based on the literature it is hypothesized that EI will be positively associated with the frequency of post-varsity volleyball participatory behaviours

H3: Enduring involvement facets (a) attraction, (b) centrality, (c) social bonding, (d) identity affirmation, (e) identity expression will be positively associated with the frequency of post-varsity volleyball participatory behaviours.

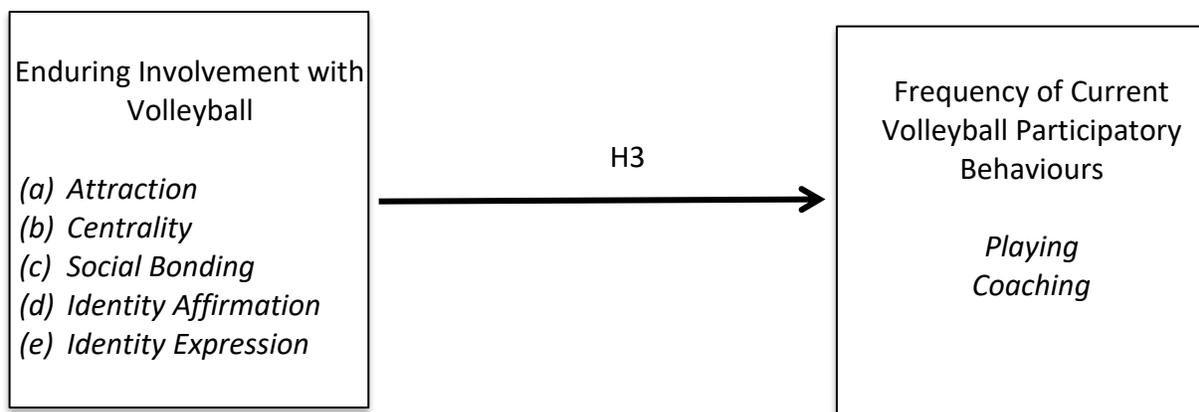


Figure 2.9 Hypothesis 3

2.9 Summary

In summary, the purpose of this thesis is to uncover factors that influence student-athletes' participation in their sport following leaving their university team. A review of the literature has uncovered that there are gaps in aging and life course literature, quality of sport literature, and enduring involvement literature. After this review of the literature, the subsequent hypothesis were established:

H1: Time since leaving the team will be negatively associated with the frequency of current post-varsity volleyball participatory behaviours.

H2: Quality of the university sport experience will be positively associated with the frequency of current post-varsity volleyball participatory behaviours.

H3a: The Attraction facet of enduring involvement will be positively associated with the frequency of current post-varsity volleyball participatory behaviours

H3b: The Centrality facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours

H3c: The Social Bonding facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours

H3d: The Identity Affirmation facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours

H3e: The Identity Expression facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours

These hypotheses are summarized and presented in Figure 1.1

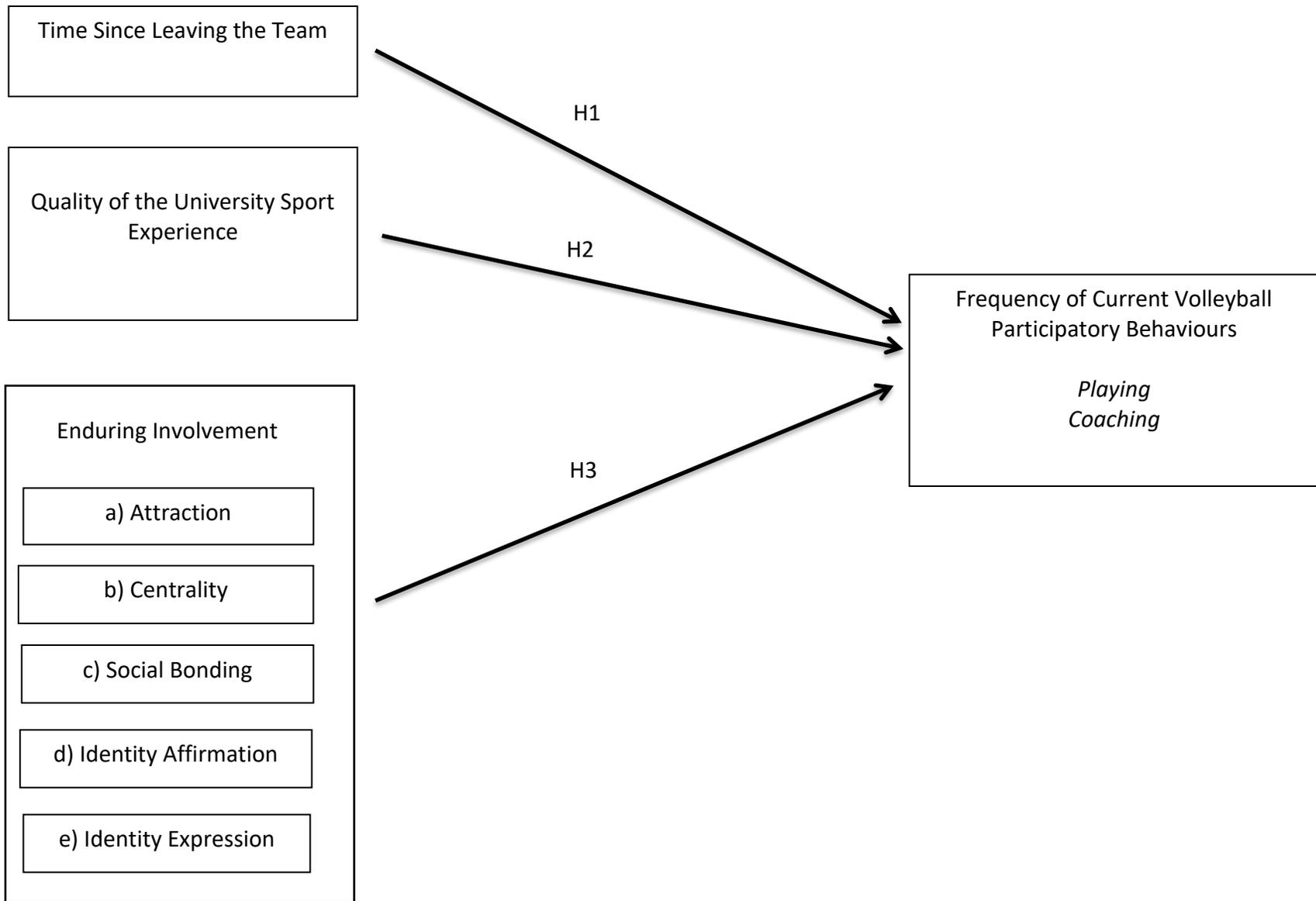


Figure 1.1 Hypothesized Model

CHAPTER THREE: METHODS

3.1 Outline

The following chapter is divided into three main sections. The first section outlines the research design of the investigation including study participants, main study data collection procedures, and participant compensation and retention. The second section describes the measures of questionnaire variables; which include participatory behaviours, time since leaving the team, enduring involvement, and quality of sport experience constructs. The final section of the chapter outlines the data analysis plan.

3.2 Research Design

A quantitative survey-research design was employed for this study. This methodology is appropriate for this study as the research attempts to uncover the relationships between enduring involvement, time since graduation, quality of sport experience, and volleyball participatory behaviours rather than a subjective experience about continuing behaviours. A questionnaire format was applied to explore the nature of the relationships between these variables.

3.2.1 Survey Research Design

The purpose of this survey research is to be able to explore factors that predict post-varsity sport-participation among a sample of former OUA volleyball players. A survey is the preferred type of data collection procedure for this type of research. According to Fowler (2013), there are two fundamental premises to survey research. The first one is that by describing the sample of people who respond to the survey, we can then describe a target population. The second one is that the research process is that the answers people give can be used to accurately describe characteristics of the respondents. Survey research can then be used to compare this study to previous studies, aiding into the development of enduring involvement, quality of sport

experience, and time since leaving the team research (Krosnick, 1999). The survey will be cross-sectional, meaning that data will only be collected at one point in time.

Specifically, data was collected through an online questionnaire provided by SurveyMonkey. By providing the questionnaire online, respondents can be contacted and also complete the survey at the same time. Due to participants being from all over Ontario, an online questionnaire was able to reach participants that would otherwise not be able to be reached (Wright, 2005). As well, an online survey can be taken anywhere and can be accessed as long as one has an Internet connection. Information from the survey online can also directly be inputted into SPSS, meaning less chance of incorrect data input (SurveyMonkey, 2017).

There are some disadvantages when working with an online questionnaire. Once an email list for a group of participants has been attained, it is possible to email out a link to every member on the list (Wright, 2005). Nevertheless, problems such as multiple email addresses for the same person, multiple response rates from participants, and valid/invalid email addresses can make sampling online problematic (Andrews, Nonnecke, & Preece, 2003; Couper, 2000).

There are some solutions a researcher can take when faced with these challenges. One solution for this is for potential participants to contact researchers to obtain a unique code number and input it into the online questionnaire prior to completing it (Wright 2005). This extra step in the survey process may deter people from answering the questionnaire and as a result decreasing the response rate (Wright 2005). Another solution is to choose an online questionnaire program that offers response tracking by asking the participant to first enter their email address to complete the survey (Wright 2005). Once the questionnaire is completed, the program remembers the email so that the participant cannot complete it again. While this does help, a participant could theoretically get access to a secondary email and complete it again. As

well, researchers using email invitations to participate in their study may be faced with resentment (Wright, 2005). People can sometimes misinterpret or consider these types of emails as “spam” and proceed to delete them without even looking into them as they are seen as an invasion of privacy (Andrews et al., 2003; Wright, 2005).

3.2.2 Retrospective approach

One of the greatest challenges in the recreation and leisure fields is the lack of diverse and varied theoretical perspectives, methodologies, and methods in the research (Mannell, Kleiber, & Staempfli, 2006; Parry & Johnson, 2007; Silk & Amis, 2009; Stewart & Floyd, 2004). The attempts to understand the long-term declines and issues surrounding these challenges have been unheard by many scholars (Havitz & Dimanche, 1999; Iwasaki, 2007; Kyle & Chick, 2004).

A retrospective research method involves participants looking back in time and can result in data that is cross-sectional (at a certain point in time) or longitudinal (sequential data that spans multiple time periods) (Snelgrove & Havitz, 2010). While there is some debate on using retrospective data, the methods that surround it are based on an evaluation of prospective and retrospective data. Prospective data includes information collected from participants at one point in time (i.e., cross-sectional) or multiple points in time (i.e., panel study) at about the time the experience occurs. On the other hand, retrospective data is collected at one point in time and involves participants to recall the past (Snelgrove & Havitz, 2010). Comparisons of both prospective and retrospective studies have yielded interesting results. In a study completed by Woodruff (1983), participants were asked to complete a personality test 25 years after taking an initial one. It was found that the retrospective results were only moderately correlated with the original scores.

Similar results were also found by Jaspers, Lubbers, and De Graaf (2009) when looking at social attitudes. It was found that there were limited differences found between prospective and retrospective data when participants did not actually change their attitudes under the study. When the participants did change their attitudes on the survey, they reported no change. In its place, they were more likely to rely on their current attitudes as a substitute for the past attitudes.

A criticism of the retrospective method is that participants are not able to completely remember past events, states of mind, or mental processes (Nisbett & Wilson, 1977; Nisbett & Ross, 1980). A retrospective method that has been found effective in memory recall is a critical incident techniques, in which a participant is requested to describe their memory from a specific event rather than general information (Ericsson & Simon, 1980). This has also been confirmed in other studies on memory recall. In a study on childhood recollections, it was concluded that if individuals are able to “recall specific events, they will have been extreme or unusual in their experience” (Yarrow, Campbell, & Burton, 1970, p. 71). In this study, participants will be asked specific questions about their experiences playing university volleyball to try and stimulate the mind. Playing on the team has hopefully been memorable to them, increasing the chances of them looking back upon it. Further support is added from Tversky & Kahneman (1973) who found that when the uniqueness of probed information is low, recall may be poor and information may not stay in the long-term memory. Likewise, recall of specific psychological states or events can possibly be influenced by whether or not the line of questioning is attached to the person’s identity (McAdams, 2001). Experiences that have been adopted as memories and contribute to the development of the self are often easier to recall than experiences that serve little or no individual importance (Bluck & Habermas, 2000). The questions asked may evoke some sort of memory in the former university athlete. If there is a question that evokes a

reaction, the participant will be more likely to answer the question honestly and accurately according to their memory.

3.3 Data Collection Procedures

3.3.1 Recruitment procedures

Recruitment and data collection occurred during the Fall 2017 semester. OUA volleyball coaches were contacted through email using a script to see if they would like to participate in this thesis study (see Appendix D). If they confirmed that would like to be a part of the thesis study, another script was sent to them outlining an email to forward onto their former players providing them a link to the thesis information letter (see Appendix E). If the OUA coaches were not able to send out the thesis information letter, then former members of OUA teams were contacted with the thesis information to be able to complete it as well as pass it on to fellow former players that they knew or once played with.

Once on the website, the former player was informed of the research purpose, procedure, rights as a participant, and why they were invited to partake in the study. By clicking on the “I have read the information letter...” button implied the participants consent in this study. The questionnaire was available for one month for participants to complete, as this would have provided enough time for the participant to receive the initial email and complete the questionnaire. All completed questionnaires were completely anonymous and confidential. At no point in time were the participants asked to provide their name or any other identifying information.

All completed survey data was first saved on SurveyMonkey. After, data was transferred to a USB stick for safekeeping and analysis. Data was also encrypted so that only people with a password would be able to open in. The USB was stored in a locked office at the researcher’s

home. Electronic data will be erased after a minimum of 7 years. There is no list of how many alumni players' one school could have; therefore having all of the universities that participate in the OUA provided a larger base from which to collect data. This sampling will only be a single stage sampling procedure. To be compensated for their time in competing the survey, at the end of the questionnaire period there was a draw for a volleyball prize pack provided by Canuck Stuff which consists of sweatshirt, t-shirt, "Freddy" socks, and a Mikasa indoor volleyball.

3.3.2 Study participants

Participants (n=90) for this study consisted of former OUA male and female volleyball players from universities across Ontario. Former OUA male and female volleyball players are defined as a player that competed on the university team for at least one season. These included former players from Brock University, Lakehead University, Laurier University, McMaster University, Nippissing University, Queens University, Royal Military College, Ryerson University, Trent University, University of Guelph, University of Ottawa, University of Toronto, University of Windsor, University of Waterloo, Western University, and York University. These universities were selected because these institutions have competed in OUA Volleyball at some time in their institutions history.

3.3.3 Pilot study

A pilot study was performed with the questionnaire to gather information on the timing and what questions may be modified for clarity. Current university volleyball players at the University of Waterloo were recruited to test the questionnaire. As current players, they could anticipate what questions some former players might have about the questionnaire questions and provide insight on how to make the questions clearer. Subjects were emailed the instructions just like the real participant will be and be given time to answer. Upon completion, the time that they

completed it as recorded to gather how long the survey takes on average. A form was also at the back indicating any questions or concerns they have about the survey and what may be considered for review. The average time it took for them to complete the survey was 10 min. There also was no area's that caused concern that former players would not understand.

3.4 Measures

The questions included in the survey were designed to assess demographics, how much time they spend participating in volleyball, amount of time since leaving the team, the quality of the university sports experience, and EI. Each one will be presented below. The questionnaire used to collect the data for the current thesis is presented in Appendix C.

3.4.1 Independent variables

Three different independent variables were collected. The first one is time since leaving the team. As all former players were asked, the number of years since they have left the team could have had an impact on the dependent variable. We could then see any trends based on the number of years since they have left the team.

The second is the quality of the university sport experience. This was measured by the Satisfaction of the Quality of Sport Experience (SQSE) survey. This survey was developed from Sport England to measure the quality of their sport programs. The survey has been constructed on information gathered through representatives of sport governing bodies, in-depth interviews, as well as statistical validity and reliability checks (Rowe 2012). The SQSE consists of 62 questions across 10 different domains. Participants were asked to look back at the time they participated in university volleyball. The questions are measured across a 5 point Likert scale (1 = *extremely dissatisfied*, and 5 = *extremely satisfied*). The 10 domains of the SQSE are: opportunities to improve your overall performance (e.g., *The opportunities I had to progress and*

improve in my sport), exertion and fitness (e.g., *the opportunities to get the levels of physical exertion from my sport that were right for me*), release and diversion from everyday life (e.g., *opportunities the sport gave me to relive stress, unwind and get away from my everyday routine*), social aspects (e.g., *opportunities the sport gave me to feel part of a wider group or team*), people and staff involved in organizing your sport (e.g., *how welcome I was made to feel by the people who organize or run my sport*), ease of participating in your sport (e.g., *the ease with which I could balance my sporting, work, family, or educational commitments*), facilities and playing environment (e.g., *the quality of the surfaces where I took part in my sport*), coaching (e.g. *the coaching I received suited my ability*), officials (e.g., *The knowledge and application of the rules demonstrated by quality officials*), and value for money (e.g., *the value for money I got for the cost of my athletic membership*).

The third is enduring involvement. Enduring involvement facets from Kyle et al.'s (2007) Modified Involvement Scale (MIS) have been demonstrated across many domains involving items of personal relevance in activities that are non-competitive leisure, sport and recreation activities (Chang & Gibson, 2015; Havitz et al., 2013; Wood & Danylchuk, 2015). The MIS is considered relevant for this study as participants have now stopped playing volleyball at a high level and may have continued to play at some capacity or have stopped all together, indicating some sort of continued involvement in the activity. The MIS is measured on a five-point Likert type declarative statements (1 = *strongly disagree* to 5 = *strongly agree*) in a running context specifically using Kyle et al. (2007) MIS. The facets of the MIS have shown to be a strong indicator of enduring leisure involvement through multiple validity and reliability testing. There are three questions for each of the five facets – attraction (measured in *enjoyment, importance, and satisfaction* of volleyball), centrality (e.g. *volleyball occupies a central role in my life, I find*

a lot of my life is organized around volleyball), Social Bonding (e.g. participating in volleyball provides me with an opportunity to be with friends, I enjoy discussing volleyball with my friends), identity affirmation (e.g. when I participate in volleyball I can be myself, I identify with the people and image associated with volleyball), and identity expression (e.g. participating in volleyball says a lot about whom I am, when I participate in volleyball others see me the way I want them to see me).

3.4.2 Dependent Variables

The frequency of current volleyball participation was calculated by adding up the hours spent involved in volleyball and dividing it by the number of weeks they participated in to give the total number of hours per week involved with volleyball during the year. Looking at the frequency of participation this has been demonstrated to be a valid and reliable way to measure activity when looking at physical activity over a time span (G. Beunen, 1988; G. P. Beunen et al., 1992; Fortier, Katzmarzyk, Malina, & Bouchard, 2001; Kemper, 1995).

Current displays of volleyball participatory behaviour for this study included; playing indoor volleyball (how many teams did you participate on, what seasons did you play, the level of competition, how many weeks of the year did you participate, how many days per year did you participate, how long in hours was each volleyball session, how many tournaments outside of a league did they attend), beach volleyball (how many teams did you participate on, what seasons did you play, the level of competition, how many weeks of the year did you participate, how many days per year did you participate, how long in hours was each volleyball session, how many tournaments outside of a league did they attend), and coaching volleyball (how many teams did they coach, what kind of volleyball did they coach, the level they coached at, how many weeks of the year, how many days per week, how long in hours was each session).

3.5 Data Analysis Plan

Descriptive statistics were analyzed first. Second, a correlation analysis was performed to determine if there were relationships between variables. Finally, a multiple linear regression analysis was conducted to test each hypothesized relationship in Figure 1.1. For this study, a conventional probability level of $p < 0.5$ was used to indicate statistical significance.

CHAPTER FOUR: RESULTS

4.1 Outline

Chapter Four presents the results of the questionnaire that was distributed to the former OUA players. First it outlines the process of data input and cleaning. Second, the general results are examined including issues relating to the response rate and demographics of the respondents. Third, the descriptive statistics for each question in the questionnaire are summarized. Lastly, the results of the hypothesis testing are presented.

4.2 Data Input and Cleaning

The analysis started with inputting the data generated from SurveyMonkey into SPSS. SurveyMonkey has a unique feature that can export the data into an SPSS file. Once the data had been generated into the SPSS file, the data was then "cleaned" to make sure it would be able to function properly in the analysis. First, each survey was checked to see if they were eligible to use. Second, each variable was checked to ensure that the values were within acceptable ranges so that it could be used in the analysis. Any numbers that may have been written out in text were changed to numerical form to be used in the analysis.

4.3 General Results

The following section outlines the general results examined in this study. Response rate issues and the demographic characteristics of respondents are also presented. When applicable, the means and standard deviations of these characteristics are given.

4.3.1 Response Rate

No formal response rate could be calculated. This is because the total number of former university volleyball players could not be determined due to the data collection procedures (refer

to Chapter 3). Out of the 90 surveys completed online on SurveyMonkey, four were found to be unusable, making for a 95.5% completion rate.

4.3.2 Characteristics of the Respondents

Respondents were asked to complete an array of demographic questions (e.g. gender, age, living situation, financial situation, and university team they played for). The subsequent paragraphs is a summary of the demographic information collected from the former university volleyball players.

Almost three quarters of the respondents that completed this survey were male (72.1%) opposed to female (27.9%). The average age of the respondents who completed the survey was 32.74 (SD = 9.35) and ranged from 20 to 57 with 24 (n = 9, 10.5%) and 26 (n = 9, 10.5%) being the modal age. The majority of the respondents that completed this survey were also living at home with a spouse or partner with children at home (n = 28, 32.6%). This was followed by living at home with a spouse or partner (n = 21, 24.4%) but no children, and then by living with one or more unrelated adults (n = 13, 15.1%). As well, 44.2% of the respondents felt as they were quite comfortable in their current financial situation (n=38).

Respondents came from multiple universities. The majority of the respondents came from the University of Windsor (n = 22, 25.6%) and the University of Waterloo (n = 22, 25.6%) followed by Queens University (n = 17, 19.8%), and then Nippissing University (n = 8, 2.3%). Two thirds of the respondents that completed this survey were found to have competed four (n = 29, 33.7%) or five years (n = 29, 33.7%) on their university team. Interestingly, the respondent's length of time since they have competed on their former university volleyball team ranged from 1 year to 33 years, with the average time span that they had competed being 10.11 years (SD =

8.572). Please refer to Table 4.1 for a summary of the demographic characteristics of the former university volleyball player respondents.

Table 4.1 Demographic Characteristics of Former University Volleyball Players Respondents

Characteristic	<i>n</i>	%
Sex		
Male	62	72.1
Female	24	27.9
Age Cohort		
18-24	18	20.9
25-33	30	34.9
34-42	23	26.7
43-51	7	8.1
51+	4	4.7
Missing	4	4.7
Current Living Situation		
Living alone, no children in the home	10	11.6
Living alone with children	2	2.3
Living with parents or other relatives	11	12.8
Living with one or more unrelated adults	13	15.1
Living with spouse or partner with children at Home	28	32.6
Living with one or more unrelated adults with Children	1	1.2

(Table 4.1 continued)

Characteristic	<i>n</i>	%
Current Financial Situation		
I have enough to get by	14	16.3
I have a little left over after all of my obligations have been met	22	25.6
I am quite comfortable	38	44.2
I have all that I need and more	12	14
University Team		
Brock University	1	1.2
McMaster University	2	2.3
Nippissing University	8	9.3
Queens University	17	19.8
Ryerson University	3	3.5
University of Guelph	2	2.3
University of Toronto	1	1.2
University of Windsor	22	25.6
University of Waterloo	22	25.6
Western University	7	8.1
York University	1	1.2

(Table 4.1 continued)

Characteristic	<i>n</i>	%
The amount of seasons participating on the university team		
1	6	7
2	8	9.3
3	13	15.1
4	29	33.7
5	29	33.7
Missing	1	1.2
Amount of time in years since participation on the university team		
1-6	42	48.8
7-12	11	12.8
13-18	16	18.6
19-24	8	9.4
25 +	8	9.4
Missing	1	1.2

4.4 Descriptive Statistics

The following section organizes the descriptive statistics for each question and scale from the surveys that were completed online. Where appropriate, the variables' means, standard deviations, skewness, and kurtosis are presented.

4.4.1 Participation in Volleyball

Participants were asked a variety of questions related to their participation in volleyball in 2016. Almost three quarters ($n = 64$) of former university volleyball players participated in volleyball and 25.6% ($n = 22$) did not participate at all in volleyball in 2016. Participation in volleyball was then broken down into three sections: indoor volleyball, beach volleyball, and coaching volleyball. Each one will be presented below.

4.4.1.1 Indoor Volleyball Participation

A total of 69.4% ($n = 43$) of survey participants indicated they participated in indoor volleyball while 30.6% ($n = 19$) answered that they did not participate in indoor volleyball. Participants played on an average of 2.0 indoor volleyball teams ($SD = 2.984$). A total of 90.7% ($n = 39$) of the respondents participated during the winter (January – March), 27% ($n = 12$) during the spring (April – June), 20.9% responded that they participated in the summer (July – September), and finally 76.7% participated in indoor volleyball in the fall (October – December). For the level of competition that they participated at, 39% ($n = 17$) participated at a recreational level, 67% ($n = 29$) participated at a competitive level, and 13% ($n = 6$) participated at a high-performance level (Provincial team, National team, or Professional team). On average, indoor volleyball participants participated 2.02 days per week ($SD = 1.683$), for an average of 19.53 ($SD = 11.132$) weeks per year. Each volleyball session lasted an average of 2.1 hours ($SD =$

.967). Indoor volleyball participants also participated in an average of 2.28 indoor volleyball tournaments outside of a regular scheduled league (SD = 3.459).

4.4.1.2 Beach Volleyball Participation

For beach volleyball, 47.5% (n = 29) of respondents indicated they participated in 2016, while 52.5% (n = 32) indicated they did not participate in beach volleyball in 2016. Participants played on an average of 1.39 teams (SD = 1.166). 20.6% (n = 6) of beach volleyball athletes participated in beach volleyball in the winter (January – March), 62.1% (n=18) participated in the spring (April – June), 93.1% (n = 27) of participated during the summer (July – September), and lastly 20.6% (n = 6) participated in the fall (October – December). For the level of competition, 31% (n = 9) participated at a recreational level, 59% (n = 17) participated at a competitive level, and 10% (n = 3) participated at a high-performance level (Provincial team, National team, or Professional team). On average, beach volleyball participants participated 1.67 days per week (SD = 1.197), for an average of 16.59 weeks per year (SD = 14.123). Each volleyball session lasted on 2.55 hours on average (SD = 1.183). As well, participants that were involved with beach volleyball competed in an average of 2.86 (SD = 4.077) tournaments that were outside of a regular scheduled league.

4.4.1.3 Coaching Volleyball Participation

For coaching, 45.8% (n = 38) responded that they participated in 2016, while 54.2% (n = 45) responded that they did not. Respondents were found to coach an average of 1.67 teams (SD = 1.414). 81.1% (n = 30) of coaches were found to coach at the indoor volleyball, while 5.4% (n = 2) coached beach volleyball and 13.5% of coaches coached both indoor and beach volleyball. 44.7% (n = 17) coached at a community or grass roots level, 47.4% (n = 18) were found to coach at a club level, and 36.8% (n = 14) were found to coach at a High-Performance level (Provincial

team, University team, National team, Professional team). Respondents coached for 3.22 days per week on average ($SD = 1.475$), and coached an average of 21.3 weeks per year ($SD = 13.527$) with each coaching session lasting on average 2.38 hours ($SD = 1.293$).

4.4.1.4 Frequency of Current Participation in Volleyball (Dependent Variable)

An overall volleyball participation score was calculated to determine the frequency of participation in volleyball in 2016. This variable was calculated by multiplying the number of hours per session by the number of times per week, then times the number of weeks per year for each of indoor volleyball, beach volleyball, and coaching volleyball. The average amount of hours per year that participants spent in volleyball was 146.54 hours ($SD = 188.81$). Indeed a very high standard deviation in the dependent variable was observed. Thus, it can be concluded that two thirds of the sample participated between 0 and 355 hours of volleyball per year, or roughly up to an hour a day. As well, that suggests one third of the sample participated for more than 355 hours per year, or roughly more than an hour a day of volleyball.

4.4.2 Quality of University Sport Experience Results

The quality of the university sport experienced was measured using the Satisfaction of the Quality of Sport Experience (SQSE). The SQSE is comprised of 10 sections and 62 questions, and are recorded on a 5 point Likert scale. For the purposes of this study only 9 sections and 52 questions were used. The section *Value for Money* was omitted because the questions asked in this section asks the participant if they are satisfied with the purchase of services such as facility memberships, parking, the clothing purchased to participate in their sport, the coaching, and non-sport facility items (change rooms, catering). Due to the participants at one time being students, it is understood that their tuition costs for the semester has an athletic

fee that would go toward supporting these costs. The main idea is that the student has no choice in where this athletic fee goes toward, and so asking specific questions on the purchases of the services is undeterminable, as they do not control where their athletic fee money went.

For the Opportunities to Perform and Improve section, the average score was 4.05 (SD = .67). In Exertion and Fitness, the average score was a 4.24 (SD = .85). For Freedom from Everyday Life, the average score was a 4.45 (SD = .61). The average for the Social Attributes facet was 4.36 (SD = .63). with the People and Staff involved, the average score was a 4.1 (SD = .74). The Ease of Participating dimension was scored an average of 4.0 (SD = .6). Faculties and playing environment was scored an average of 3.86 (SD = .7). The respondents' average score for the Coaching Received was a 3.67 (SD = 1.18). The Officials category was scored an average of 4.0 (SD = .59). Overall, the average total quality of university sport experience that the respondent had when attending university was a 4.04 (n = 76, SD = .53). It is worth noting that these score may generally be high because the midpoint of the scale is a 3.0.

4.4.3 Enduring Involvement Results

Enduring involvement was measured using the MIS. The MIS is comprised of 5 facets each comprised with 3 questions. For the Attraction facet, the average score was 3.73 (SD = 1.12). The Centrality facet's average score was 2.7 (SD = 1.2). It was also the lowest mean score of all the facets and had the highest standard deviation. The Social Bonding facet mean was a score of 3.61 (SD = .85). The Identity Affirmation facet had an average score of 3.67 (SD = .92). Lastly, the Identity Expression facet had an average score of 3.02 (SD = .974). The total average Enduring Involvement score was a 3.35 (SD = .84). Just like with the quality of the sport experience, it is worth noting that these scores may generally be high due to the fact that the midpoint of the scale is 3.00. Table 4.2 recaps all the descriptive statistics and inter-correlations

among all variables involved in the prediction of participation in volleyball described above (excluding gender and other demographic variables).

Table 4.2: Means, Standard Deviations, and Inter-Correlations Among Participation in Volleyball Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	M (SD)
1. Total Participation Hours	1								146.54 (188.81)
2. Amount of Time since last played on University team	-.146	1							10.11 (8.57)
3. Quality of the university sport experience	.140	.082	1						4.04 (.53)
4. Attraction Facet	.394**	-.072	.309**	1					3.73 (1.11)
5. Centrality Facet	.663**	-.033	.202	.759**	1				2.7 (1.2)
6. Social Bonding Facet	.334**	-.335**	.161	.581**	.617**	1			3.61 (.85)
7. Identity Affirmation Facet	.081	-.262*	.203	.673**	.507**	.617**	1		3.67 (.92)
8. Identity Expression	.185	-.133	.056	.529**	.503**	.540**	.730**	1	3.02 (.97)

Notes: **. Correlation is significant at the .01 level (2-tailed)

*. Correlation is significant at the .05 level (2-tailed)

4.5 Hypotheses Testing

A multiple linear regression analysis was conducted to test each hypothesis. Here, the goal was that the number of years off the team and the quality of the sport experience would come to explain significant proportions of the variance in their enduring involvement and the amount of time respondents put into participating in volleyball. The regression analysis were conducted for the entire sample of participants. Results from the regression analysis are presented in the following sections. Each regression analysis table provides the standardized beta coefficients (β) and R^2 values for each relationship.

In regards to the total participation in volleyball, a linear regression analysis was conducted to test the relationship between a) Time since leaving the team and frequency of volleyball participatory behaviours (H1); b) Quality of the university sport experience and the frequency of volleyball participatory behaviours (H2); c) Enduring involvement facets (attraction, centrality, social bonding, identity expression, identity affirmation) (H3). Results are presented in Table 4.3.

Table 4.3: Regression Analysis for Variables Predicting the Frequency of Current Volleyball Participatory Behaviours (n = 82)

Variable	Standardized Coefficients β	Adjusted R ²
Time since leaving the team	-.234**	
Quality of the University Sport Experience	.080	
Attraction	-.014	
Centrality	.871***	
Social Bonding	-.011	
Identity Affirmation	-.469***	
Identity Expression	.074	
		.547***

Table 4. Notes: ** $p < .01$, *** $p < .001$.

Results from the regression analysis indicate that the amount of time since leaving the team, the quality of the university sport experiences, and the enduring involvement facets accounted for 54.7% of the variance in the frequency of current volleyball participatory behaviours ($R^2 = .547$), which is a statistically significant amount of the total variance ($F = 13.93, p < .001$). Centrality ($\beta = .871, p < .001$) was a significant positive predictor of the frequency of current volleyball participatory behaviours, while the amount of time since they have been away from the team ($\beta = -.234, p < .01$) and identity affirmation ($\beta = -.469, p < .001$) were significant negative predictors of the frequency of current volleyball participatory behaviours.

Thus, as expected, results suggested that the more time that passed since participating in varsity volleyball, the less frequently former volleyball athletes reported participating in the sport. Moreover, the more former varsity athletes felt attached to the sport and felt their participation was central to their lifestyle, the more frequently they reported participating in the sport. Interestingly, however, the more former athletes perceived their current participation as an opportunity to reinforce their identity as a “volleyball player,” the less frequently they reported participating in the sport. Table 4.4 shows whether each hypothesis is rejected or accepted. The results from this regression analysis including standardized beta weights and adjusted R^2 values are shown in figure 4.1 is shown.

Table 4.4: Hypothesis Accepted or Rejected

Hypothesis	Accepted	Rejected
1) The amount of time away from the former university team will be negatively associated with the frequency of current post-varsity participatory behaviours	✓	
2) The Quality of the University Sport Experience is positively associated with the frequency of current post-varsity participatory behaviours		✓
3a) The Attraction facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours		✓
3b) The Centrality facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours	✓	
3c) The Social Bonding facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours		✓
3d) The Identity Affirmation facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours		✓
3e) The Identity Expression facet of enduring involvement will be positively associated with the frequency of current post-varsity participatory behaviours		✓

Figure 4.1: Prediction of Current Frequency of Volleyball Participatory Behaviours

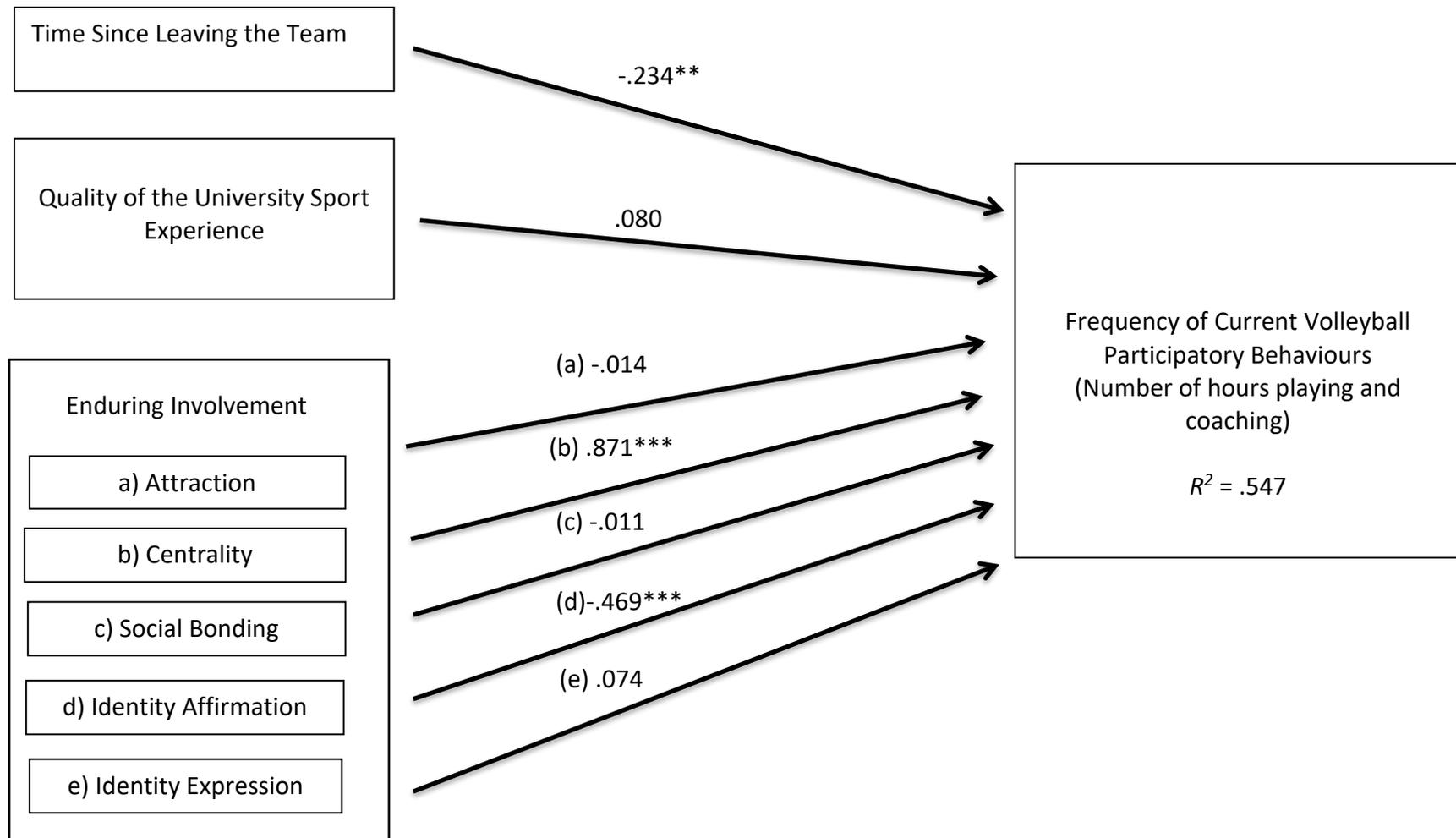


Figure 4.1 Notes: R^2 based on regression analysis; standardized beta weights are depicted above the respected arrow; ** Relationship is significant at the 0.01 level; *** Relationship is significant at the 0.001 level

CHAPTER FIVE: DISCUSSION

This chapter summarizes key findings in relation to the current literature that is related to the present study. Specifically, results related to each of the hypothesis will be examined in relation to extant research. Specifically, the discussion sections explores the role of the amount of time away from the university team, the quality of the university experience, and enduring involvement in predicting frequency of volleyball participatory behaviours. Implications of the study for theory and practice, as are discussed. Lastly, the chapter concludes by outline limitations of the current study and avenues for future research.

5.1 Summary of Results

The purpose of the current thesis was to explore the factors that predict post-varsity sport-participation among a sample of former OUA volleyball players. As it relates to the purpose, this thesis reveals significant findings related on the topics of the amount of time away from the team, the quality of the university sport experience, as well as enduring involvement. More specifically, the hypothesized model, informed by relevant literature from the leisure life course, quality of sport experience, and enduring involvement (Crawford et al., 1986; Iso-Ahola & Iso-Ahola, 1980; Kyle et al., 2007; Rowe, 2012) was partially supported. As illustrated in Figure 5.1, hypothesis 1 (*The amount of time away from the former university team will be negatively associated with the frequency of current post-varsity participatory behaviours*) and 3b (*The centrality facet of enduring involvement will be positively associated with the current participatory behaviours*) were supported, while hypothesis 2 (*The Quality of the University Sport Experience is positively associated with the current volleyball participatory behaviours*), 3a (*The Attraction facet of enduring involvement will be positively associated with the current participatory behaviours*), 3c (*The Social Bonding facet of enduring involvement will be*

positively associated with the current participatory behaviours), 3d (*The Identity Affirmation facet of enduring involvement will be positively associated with the current participatory behaviours*), 3e (*The Identity Expression facet of enduring involvement will be positively associated with the current participatory behaviours*) were not supported. Interestingly, some of the directions of significant relationships between variables that emerged during the examination of the model were unexpected. These results of hypothesis testing will be explored further and interpreted in relation to more literature in the following sections.

5.2 Amount of Time Away from the University Team and Frequency of Current Post-Participatory Behaviours

Leisure over the life course is often thought of in two ways. The first is the consistency of leisure pursuits (Crawford et al., 1986; Kornadt, Voss, & Rothermund, 2015; Scott & Willits, 1989) and a life course perspective (Allender et al., 2008). The results of this study signify that individuals who have been away longer from their former university volleyball team participate in volleyball less frequently. These findings are consistent with the notion that as one gets older, their participation in physical active leisure decreases (Kelly, 1987; Ross & Hayes, 1988), even though unlike previous studies the majority of the sample are not at a traditional retirement age.

This study is also consistent with many other findings on aging and leisure participation. For example, in a study of physical activity from childhood to adult life in the Trios-Rivières area, the percentage of individuals undertaking greater than 5 hours of physical activity per week decreased from 70% to 17% when entering from adolescence to midlife. The largest decline between two groups actually occurred when entering the labor market (55.9% to 23.4%) (Larouche, Laurencelle, Shephard, & Trudeau, 2012). The entireties of participants in this sample are in an age where those that are working age adults as well. In a systematic review of

the influence of life events on changes in leisure time physical activity, significant changes in leisure physical activity were associated with certain life events (Engberg et al., 2012). Changes such as having a child, marriage or remarriage, or beginning work or changing work conditions all reduced physical activity levels. In contrast, retirement increased physical activity (Engberg et al., 2012). All of the participants in the current study are in a stage of life where these events could happen to them, and in turn, could interfere with post university volleyball participatory behaviours. This may also demonstrate that leisure activities are not as consistent throughout life as previously thought

The amount of time away since participating on the university volleyball team is significantly associated with how much they participate in volleyball today. A way to counteract being away from the sport for so long is provide options to not let the volleyball participant lapse in volleyball activity. As Rowe (2012) found during his research, once a participant from a sport has lapsed, without dedicated time and effort their return to the sport may never happen. As well, keeping the participant active throughout their life will have a trickle-down effect. If the participant has kids or younger relatives, by former player still being active might inspire a younger generation to be more active as well. Parental influence on continual participation in an activity has been found to significantly predict for sport compliance (Turman, 2007). Moreover, staying involved in an activity for longer will give the health benefits later on in life such as lowering the risk of disability, preventing chronic conditions, and decelerating the age process (Brown et al., 2008; Strobl et al., 2014).

5.3 Quality of the University Sport Experience and Frequency of Current Post-Participatory Behaviours

It was suggested that if the former OUA volleyball players had a positive experience during their time participating on their team, they would have higher post university participatory behaviours in volleyball. This hypothesis was not supported in this instance. Even with a mean score of 4.04 or *satisfied* with their university experience, the quality of the university sport experience participants perceived did not predict the frequency of current post-varsity participatory behaviours. While odd that this may have occurred, there may be some reasons on why this may have happened.

Perhaps the facets that comprise the quality of the sport experience scale should not be combined into one overall score, but rather all of the facets must be looked at individually. Just like in enduring involvement, the facets of the quality of sport experience are all unique and have different traits and aspects behind them and possibly should be looked at as such as this might have a more influential impact on the overall model that was suggested. As well, it could be that there was a lack of variation of the responses for the SQSE. The lack of variation would be troubling for the overall model to detect if there was a significant correlation to be detected.

Although surprising, it has been shown in other research that quality does not directly influence the behavioural intentions. In Chen and Tsai (2007) study of destination images and the evaluative factors that affect behavioural intention, the quality of the trip was found to rather have an indirect effect rather than a direct effect for a traveller's behavioural intention. Hence the outcome of a positive behavioural intention would also be uncertain.

There may also be other reasons why having such a high quality of university sport score did not influence the frequency of post-varsity participatory behaviours. The development of the

SQSE was focused on individuals who had recently lapsed in sport activity to better understand the qualities that were needed. For some participants, sport was integral to their lives and for others it was just another activity. The tightness of the bond with the sport varied from person to person (Rowe, 2012). With lapsed sport participants there was also a tendency to look back on sport with a nostalgic eye (Rowe, 2012). At one time their dedication to their sport meant escapism and a social life, and much of that emotion remains. Lapsing also provides the opportunity to rationalize for stopping sport (Rowe, 2012). It is common for participants that are seen to give up a “good thing” to have to explain their choices to others, and can lead to it feeling like an excuse (Rowe, 2012). Not only that, once an initial lapse happens a return can feel and seem like a distant prospect without increments and solid commitment (Rowe, 2012). Many of these echo what thoughts could go through a recent OUA volleyball team graduate as they may not have sufficient access to any volleyball at all due to items such as no leagues being run in the area, not enough people to make a team, or not even living close to an area that offers volleyball.

Although the quality of the sport experience may not be significant for this study, providers of university volleyball should still strive to make it the best as possible. By the quality not being significant, perhaps university providers in the present context were doing a sound job providing their athletes with a quality experience at university while competing for them.

5.4 Enduring Involvement and Frequency of Current Post Participatory Behaviours

These results show that certain facets of enduring involvement were strong predictors of the frequency of one’s post-varsity participatory behaviours. This finding is aligned with prior research demonstrating relationships between enduring involvement and participation, particularly with attraction, centrality, and social bonding facets (McIntyre, 1989; Kyle and Chick, 2004; Kyle et al. 2007).

Attraction, centrality, and social bonding have been the three longest standing facets in enduring involvement (Havitz & Howard, 1995; Kyle et al., 2007; McIntyre, 1989). This study further cements this as all three of the facets were correlated with the frequency of post-varsity participatory behaviours. Centrality to lifestyle (i.e., the degree to which an individual is attached to an activity) significantly predicted the frequency of post-varsity participatory behaviours. However, attraction and social bonding facets did not. This finding could be due to some interesting observations in the descriptive data. For one, centrality had the lowest mean score of all the five facets, but also the highest standard deviation of the five facets. So perhaps because of the variation of the centrality scores of participants, centrality was found to be a significant predictor compared to looking at the other facets where they had a high mean score and a lower standard deviation. It was also interesting to observe that attraction and social bonding had a negative relationship in the regression analysis even though both the facets have positive correlations. This may mean that attraction and social bonding are suppressor variables. Darlington (1968) defined a suppressor variable as a variable that produces a negative “beta weight” in the regression equation in spite of the fact that all correlations between the predictor and the outcome variables are nonnegative. Conger (1974) also extended this definition to include that “a suppressor variable increases the predictive validity of another variable (or set of variables) by its inclusion in a regression equation” (pp. 36-37). So perhaps from this understanding that the attraction and social bonding facets are actually helping the predictive validity of centrality with the frequency of participation. Having centrality as a significant predictor is for participation is also consistent with new literature. In post collegiate runners enduring involvement, it was also concluded that centrality to lifestyle predicted running

intensity over time as those that prioritized the activity within their daily lives maintained the most regular running routines (Wilson, Havitz, Mock, & Potwarka, L.R, 2015).

The other facets in enduring involvement, identity affirmation and identity expression, also revealed some unique results. Identity affirmation is defined as the degree that leisure provides opportunities to affirm the self to the self (Kyle et al. 2007), while identity expression is defined as the extent that leisure provides opportunities to express the self to others (Kyle et al. 2007). One interesting observation of the descriptive data that was made was that the mean score for identity affirmation was almost as high as the attraction facet. This finding could indicate that one's attraction to volleyball could also be tied to how one thinks about them self when participating in it as well. Identity affirmation was also found to be negatively associated with frequency of post-varsity participatory responses. Given that identities influence who we are, how we feel, and how we act in particular situations, people are motivated to maintain stable self-views, which provide for a sense of security, coherence, and predictability in the athletes world (Jun et al., 2012). Therefore, in the process of self-verification and the maintenance of stable identities, we are motivated to preserve self-verification contexts (Cast & Burke, 2002; Swann Jr, Rentfrow, & Guinn, 2003). In other words, perhaps former OUA volleyball players are concerned with what they think about themselves when playing. They may be concerned that they can no longer compete at the same elite level they once were able to, which may lead to concerns about the way they look when they participate in the sport, or because they can't compete at the desired level because of the lack of teammates or competition. In other words, former high-level athletes may be always trying to compare themselves back to the way they competed as a varsity athlete. Therefore, they may be very selective about how much they choose to participate and may limit the extent to which they participate in certain recreational-based

contexts. These results may align themselves with work done with social judgment theory combined with enduring involvement. One key of social judgment theory is that is a conception of the ego, or is “system of attitude structures which, when aroused by ongoing events, are revealed in more characteristic and less situational-specific behaviours toward objects or classes of objects” (Sherif et al. 1973, p. 312). These judgments or specific behaviours lead into an evaluation when events are closely related to activities that are close to their premises and beliefs (C. W. Sherif & Sherif, 1967). One postulate found in Sherif et al. (1973) research was that those that were highly involved were more selective in attributing credibility and more prone to emphasizing discrepancies on issues that were high priority.

Identity expression was both non-significant in both the correlation and the regression analysis. This indicates that the former OUA players are not concerned as much about ways in which they are seen as “elite athletes” by others when participating in volleyball, and therefore this facet did not influence the frequency of post varsity participatory behaviours among our sample of athletes. How frequently former athletes participated was not a function of a desires to “express” themselves as an athlete in that sport.

The enduring facets show participants involvement into volleyball through five different areas: attraction, centrality, social bonding, identity affirmation, and identity expression. From these facets, we can gain valuable insight into the inner workings of the participants. Almost no studies have looked into the enduring involvement profiles of former high-level athletes. As well, almost no studies have enquired about the involvement profiles of athletes that participate on team activities or activities that require more than just you to compete in. By bringing these to light, we can seek to not only understand team-based actives more, but also bridge the gap between the research that has been done and where it could be heading.

5.5 Limitations

No research project is without limitations. First, with this study there was a very limited sample size. With a limited sample size, there comes multiple problems. Due to the amount of data collected through the survey method, it may not be sufficient enough to be able to generalize it to the general population of former OUA varsity volleyball players. Although this was not the goal of this study, it should be looked to in the future to be able to generalize athletes that do not respond to the survey. As well, having a limited sample size can lead to an increased chance that a false premise may be true (Faber & Fonseca, 2014). By having more participants, the regression analysis could change in regards to what is significant and what is not. As well, the data that was collected from the participants was not normally distributed. Specifically, the standard deviation of the number of hours participated in volleyball was very high. Standard deviation is a measure of variability within the data on where the data is distributed around the mean. A very high standard deviation indicates that the data points were very spread out around the mean, which means is less reliable. This could potentially be fixed by taking out more prominent outliers of the data, but due to the low amount of data collected, every data point that could be used was used for this study. This can be rectified in the future by gathering more participants of former volleyball teams make the data more reliable.

Second, there were some items that were not measured that would have also been good indicators into how much the former volleyball player was participating in volleyball. One main indicator that was not measured was the supply side of volleyball participation. The supply side of volleyball might measure where the former volleyball player lives, how many recreation centers there are around them, and the amount of opportunities that they have to play. As volleyball is team sport, these factors may all come into play when looking into the amount of

participation hours of volleyball. These would be opportunities to look at in future studies of team-based sport participation.

Third, the way participatory behaviours were classified in this study may have been particularly problematic. There are other ways of being involved in volleyball than actually playing or coaching, such as being a referee or administrator within the volleyball community. This could have perhaps influenced the total amount of participation hours providing a more complete picture of how one is involved with volleyball.

5.6 Implications of Findings

The results of this thesis project provide insight for practice and theory related to life course and leisure participation, the quality of the sport experience, and enduring involvement. The findings of this thesis reveal ways in which professionals can take advantage of and take steps toward maximizing post varsity participatory behaviours such as playing and coaching. Lastly, future research recommendations are also provided for guidance that future research should address.

5.6.1 Implications for Practice

Participation in physical activity is becoming more and more important to achieve physical health as well as mental health (Katzmarzyk, Gledhill, Shephard, 2000; Sevink et al. 2000). As the current literature suggests, and that thesis supports, Canadians are not nearly participating enough in sport (Katzmarzyk, Gledhill, Shephard, 2000; Statistics Canada, 2015). With only 69% of former high level volleyball players participating and only 45% coaching, there is a lot of missing potential for keeping former high level athletes engaged in volleyball post-university. This thesis revealed that the strongest predictor of post university participation behaviours was how central volleyball is to the participants life. This result suggests that there

needs to be an active attempt to keep volleyball a central part of their life and not provide any lapses in activity (Rowe, 2012) as it can contribute to both individual and collective health and well-being (Kaczynski & Crompton, 2004). This could be done in a number of ways. First the LTAD should be expanded, in detail, about how and what volleyball for life should look like. With a clear direction and action plan, changes will be more likely to happen (Johnson, Hays, Center, & Daley, 2004). Keeping volleyball central could look like information sessions for upcoming graduates of volleyball programs to see what opportunities are available for them to stay involved, discounts on obtaining qualifications, making partnerships with clubs that can use the expertise, or providing other opportunities to physically participate such as leagues or regular tournaments.

5.6.2 Implications for Theory

Previous studies that have looked into participatory behaviours have used concepts such as constraints (i.e. Jun & Kyle, 2011), self-determination theory (i.e. Keshtidar & Behzadnia, 2017), and Theory of Planned Behaviour (i.e. Potwarka, 2015). This study looked at participatory behaviour from a leisure and life course perspective, quality of the sport experience, and enduring involvement theoretical points of view. Investigating participatory behaviours through these lenses accounted for individuality and experiences to help explain how they interacted with it. Previous models of participatory behaviour relied more on concrete items rather than the subjective feelings of the participant. Combining both of them, such as using social judgment theory and EI, can uncover unique aspects and more of an un-depth look at long term participation in an activity.

As the results demonstrated, not only did the amount of time away from the sport negatively influence the frequency of participatory behaviour, it our results also reinforced the

important role facets of enduring involvement play a role in understanding participation over the life course. Findings also underscore that while quality of previous elite sport experiences might influence more immediate participatory outcomes, they seem offered limited insights into longer-term participatory outcomes.

5.6.3 Future Research Recommendations

Future research may look into the mediation effect of enduring involvement on different variables that explain participation. For example, the findings of this study revealed that although the quality of the sport experience was not statistically significantly correlated with participatory behaviours, it was significantly correlated with the attraction facet of enduring involvement.

As suggested, by Friedman and Wall (2005), future researchers should be more apt to investigate the “web” of relationships between the predictor variables and explain how they contribute to the explanatory power of a model like a regression equation. As well, it is recommended that the researcher uses a true retrospective approach, gauging the participants enduring involvement in the activity at two different time points to be able to provide accurate data and to measure change between an individual. Using different ways of gathering data, such as qualitative interviews may open up different routes to explore participation. Moreover, future researchers should also look to study diverse groups of sports and at various levels of sport and expanding what participation looks like in the sport. As noted in this study’s limitations, there are other avenues of participating in a sport such as being a referee or administrator within the sport, as well as looking at more participation constraints such as the geography of the person.

5.7 Conclusion

Throughout the literature, researchers have struggled answering questions about why and how people continue to participate in activities. Previous participatory behaviour research has

tended to be single focused on what barriers are stopping participation (i.e. Jun & Kyle, 2011; Keshtidar & Behzadnia, 2017; Potwarka, 2015). The purpose of this study was to explore the factors that predict post-varsity sport-participation among a sample of former OUA volleyball players, specifically the amount of time away from the team, the quality of the sport experience, and enduring involvement. Results revealed that the amount of time since leaving the team was negatively associated with continued participation in volleyball after their OUA career. It was also revealed the quality of the sport experience received had no influence on the frequency of post participatory volleyball behaviours. For the enduring involvement facets, surprisingly only centrality and identity affirmation predictive of post participatory volleyball behaviours. These findings emphasize that continued participation in an activity is complex in nature, and additional factors need to be better understood to ensure long-term participation in sport activities.

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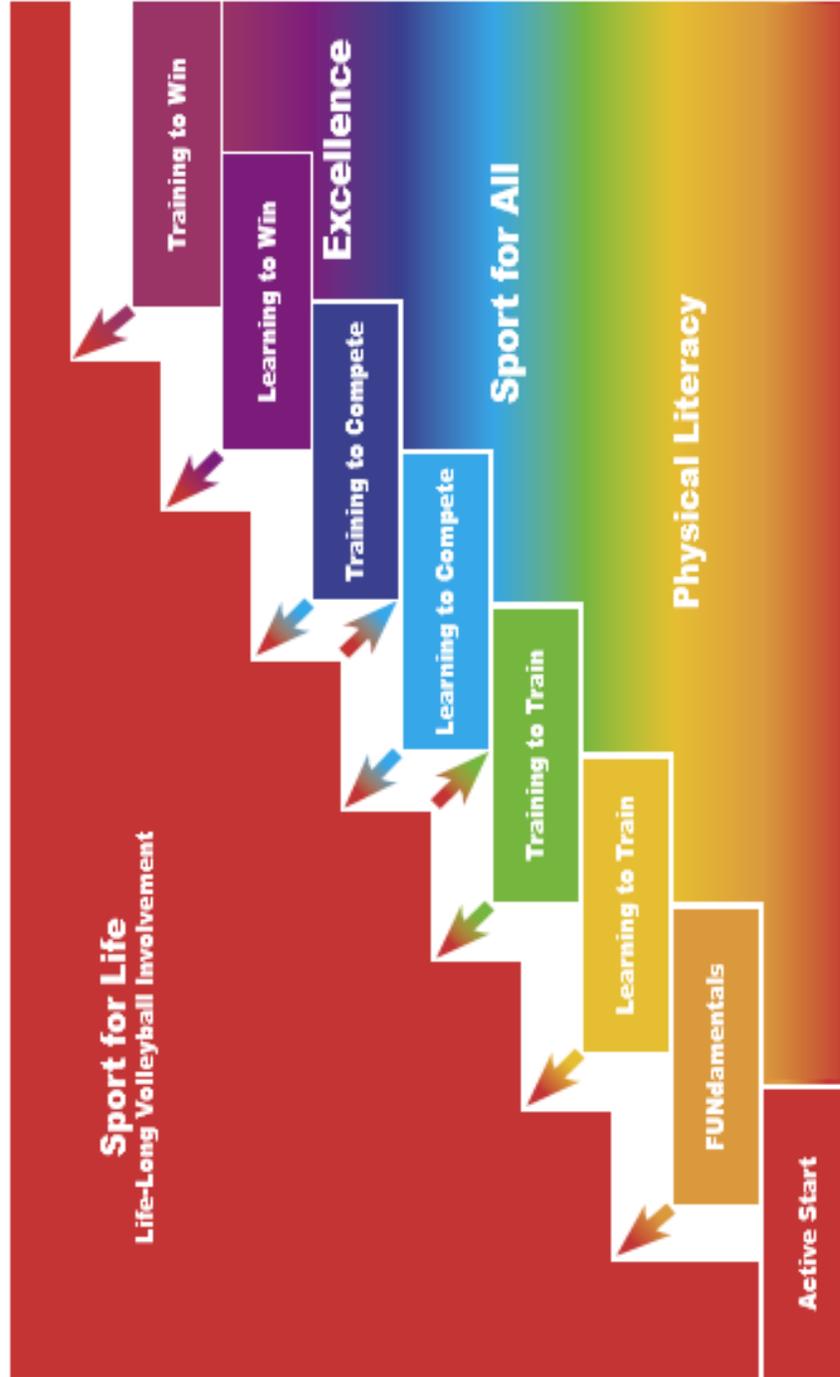
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Appendix A: LTAD Stages (LTAD, 2006)



Appendix B: Modified Involvement Scale (MIS) (Kyle et al., 2007)

Items and factor domains of the MIS

Attraction

- A₁ _____ is one of the most enjoyable things I do
- A₂ _____ is very important to me
- A₃ _____ is one of the most satisfying things I do

Centrality

- C₁ I find a lot of my life is organized around _____
- C₂ _____ occupies a central role in my life
- C₃ To change my preference from _____ to another recreational activity would require major rethinking

Social Bonding

- SB₁ I enjoy discussing _____ with my friends
- SB₂ Most of my friends are in some way connected with _____
- SB₃ Participating in _____ provides me with an opportunity to be with friends

Identity Affirmation

- IA₁ When I participate in _____, I can really be myself
- IA₂ I identify with the people and image associated with _____
- IA₃ When I'm _____, I don't have to be concerned with the way I look

Identity Expression

- IE₁ You can tell a lot about a person by seeing them _____
- IE₂ Participating in _____ says a lot about whom I am
- IE₃ When I participate in _____, others see me the way I want them to see me

Note. Items measured along a 5-point scale where 1=strongly disagree and 5=strongly agree

Appendix C: Questionnaire

-
1. What is your age? _____

 2. What gender do you identify with?

Male <input type="radio"/>	Female <input type="radio"/>	Other <input type="radio"/>
----------------------------	------------------------------	-----------------------------

 3. What university team did you play for?

(Drop down Menu)
Macmaster University
Western University
University of Windsor
University of Waterloo
University of Guelph
Brock University
Nippissing University
Queens University
Royal Military College
Ryerson University
University of Toronto
Trent University
York University
University of Ottawa

 4. How many seasons did you participate on that university team? _____

 5. Approximately how many years has it been since the last game you played on the university team? _____

 6. ***In the past year, were you involved in playing volleyball?

Yes	No
<input type="radio"/>	<input type="radio"/>

 7. *In the past year, did you play indoor volleyball?

Yes	No
<input type="radio"/>	<input type="radio"/>

 8. During what season(s) did you play? (Choose all that apply)

Winter (January – March)	Spring (April – June)	Summer (July – September)	Fall (October – December)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

 9. Please describe the level you participated at (Can pick more than one)

Recreationally	Competitively	High Performance (Provincial Team, National Team, Professional Team)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

 10. How many indoor teams in the last year did you participate on? _____

 11. How many weeks in the last year did you participate in? _____

 12. How many days per week did you participate in _____

13. How long in hours did each indoor volleyball session last that you participated in? _____
14. How many indoor tournaments did you participate in last year? (Not part of a regularly scheduled league) _____
15. *In the past year, did you play beach volleyball? Yes No
16. During what season(s) did you play? (Can pick more than one)
- | | | | |
|--------------------------------|--------------------------|---------------------------------|---------------------------------|
| Winter
(January –
March) | Spring
(April – June) | Summer
(July –
September) | Fall
(October –
December) |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
17. Please describe the level you participate at (Can pick more than one)
- | | | |
|-----------------------|-----------------------|---|
| Recreationally | Competitively | High Performance
(Provincial Team,
National team,
Professional Team) |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
18. How many beach teams in the last year did you participate on? _____
19. How many weeks per year did you participate in? _____
20. How many days per week did you participate in? _____
21. How long, in hours, did each beach volleyball session last that you participated in? _____
22. How many beach tournaments did you participate in last year (Not part of a regularly scheduled league) _____
23. *In the past year, did you coach volleyball? Yes No
24. Please describe the level you coached at
- | | | |
|--------------------------|-----------------------|---|
| Community/Grass
roots | Club | High Performance
(Provincial Team,
National Team,
Professional team) |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
25. How long in weeks is your season that your involved with? _____
26. How many days per week did you coach? _____
27. On average, how many hours was each practice you coached in? _____

28. ***Please indicate the extent to which you agree with each of the following statements about <i>how involved you are with volleyball</i>	Scale				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
Volleyball is one of the most enjoyable things I do	<input type="radio"/>				
Volleyball is very important to me	<input type="radio"/>				
Volleyball is one of the most satisfying things I do	<input type="radio"/>				
I find a lot of my life is organized around volleyball	<input type="radio"/>				
Volleyball occupies a central role in my life	<input type="radio"/>				
To change my preference from volleyball to another recreation activity would require major rethinking	<input type="radio"/>				
I enjoy discussing volleyball with my friends	<input type="radio"/>				
Most of my friends are in some way connected with volleyball	<input type="radio"/>				
Participating in volleyball provides me with an opportunity to be with friends	<input type="radio"/>				
When I participate in volleyball, I can really be myself	<input type="radio"/>				
I identify with the people and the image associated with volleyball	<input type="radio"/>				
When I'm playing volleyball, I don't have to be concerned with the way I look	<input type="radio"/>				
You can tell a lot about a person by seeing them play volleyball	<input type="radio"/>				
Participating in volleyball says a lot about who I am	<input type="radio"/>				
When I participate in volleyball, others see me the way I want them to see me	<input type="radio"/>				

29. Looking back over the time you were a university athlete and in particular at the period when you participated in volleyball, provide a rating of satisfaction about the *opportunities to improve your overall performance*

	Scale				
	Extremely Dissatisfied	Dissatisfied	Neutral	Satisfied	Extremely Satisfied
	1	2	3	4	5
The opportunities I had to learn, practice and develop skills in my sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The recognition I received from others when I performed well in my sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The opportunities I had to progress and improve in my sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The feeling that I was participating at the right standard for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That I performed at a standard that I expected of myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The opportunities I had to compete at a level that suited my abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The opportunities I had to take part in competitions in my local area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. Looking back over the time you were a university athlete and in particular at the period when you participated in volleyball, provide a rating of satisfaction about the *exertion and fitness*

The opportunities to get the levels of physical exertion from my sport that were right for me	<input type="radio"/>				
The opportunities to improve my fitness levels by participating in my sport	<input type="radio"/>				
The sports contribution to my overall health	<input type="radio"/>				

31. **Looking back** over the time you were a university athlete and in particular at the period when you participated in volleyball, provide a rating of satisfaction about *release and diversion from everyday life*

- | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| The opportunities the sport gave me to relieve stress, unwind and get away from my everyday routine | <input type="radio"/> |
| Feeling better about myself having taken part in my sport | <input type="radio"/> |
| The buzz/sense of exhilaration I got from doing my sport | <input type="radio"/> |
| The opportunities I had to challenge myself through my sport | <input type="radio"/> |

32. **Looking back** over the time you were a university athlete and in particular at the period when you participated in volleyball, provide a rating of satisfaction about the *social aspects*

- | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| The opportunities for me to socialize through my sport | <input type="radio"/> |
| The opportunities the sport gave me to feel part of a wider group or team | <input type="radio"/> |
| That I could participate in my sport without feeling embarrassed or awkward | <input type="radio"/> |
| That I could participate in my sport in a way that respects my cultural and/or religious beliefs | <input type="radio"/> |
| That I could participate in my sport with people who respect the rules and spirit of the sport | <input type="radio"/> |
| That I could participate in my sport in an environment that was not threatening or intimidating | <input type="radio"/> |

33. **Looking back** over the time you were a university athlete and in particular at the period when you participated in volleyball, provide a rating of satisfaction about *people and staff involved in organizing your sport*

- | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| How welcoming the people were at the places in which I took part in my sport | <input type="radio"/> |
| How welcome I was made to feel by the people who organize or run my sport | <input type="radio"/> |

The competence and commitment of the volunteers I came into contact with in my sport	<input type="radio"/>				
The competence of the paid professional staff I came into contact with	<input type="radio"/>				
The attitude towards families and young people in my sport	<input type="radio"/>				

34. **Looking back** over the time you were a university athlete and in particular at the period when you participated in volleyball, provide a rating of satisfaction about the *ease of participating in volleyball*

The ease with which I could balance my sporting, work, family or education commitments	<input type="radio"/>				
Being able to participate in my sport at a time that was convenient to me	<input type="radio"/>				
The commitment and punctuality of other people within my sport	<input type="radio"/>				
The time it took me to get to the places where I participated in my sport	<input type="radio"/>				
Being able to take part in my sport without being interrupted or disturbed by other sports participants	<input type="radio"/>				
Being able to take part in my sport without being interrupted or disturbed by members of the public	<input type="radio"/>				
Being able to take part in my sport at places that were not overcrowded	<input type="radio"/>				

35. **Looking back** over the time you were a university athlete and in particular at the period when you participated in volleyball, provide a rating of satisfaction about the *facilities and playing environment*

The design and look of the buildings where I took part in my sport	<input type="radio"/>				
The quality of the surfaces where I took part in my sport	<input type="radio"/>				
The heating and ventilation where I took part in my sport	<input type="radio"/>				
The quality of the lighting where I took part in my sport	<input type="radio"/>				

The quality of the natural environment or surroundings where I took part in my sport	<input type="radio"/>				
The quality of the equipment available to me at the place where I usually took part in my sport	<input type="radio"/>				
The cleanliness of the facilities where I took part in my sport	<input type="radio"/>				
The quality of the non-sport facilities where I took part in my sport (e.g. Changing, catering, and parking)	<input type="radio"/>				
The safety of the places where I took part in my sport	<input type="radio"/>				
How well the places where I participated cater for people with a disability	<input type="radio"/>				

36. **Looking back** over the time you were a university athlete and in particular at the period when you participated in volleyball, provide a rating of satisfaction about the *coaching you received*

The opportunities to receive coaching from an instructor or coach	<input type="radio"/>				
The coaching I received suited my ability	<input type="radio"/>				
The technical competence of the coach/coaches	<input type="radio"/>				
The coaches' ability to understand and respond to my particular needs	<input type="radio"/>				
Improvements I have made in my performance in the sport from having received coaching	<input type="radio"/>				
An increased enjoyment in participating in my sport from having received coaching	<input type="radio"/>				
The feedback I received from the coach/coaches was motivating and encouraging	<input type="radio"/>				

37. **Looking back** over the time you were a university athlete and in particular at the period when you participated in volleyball, provide a rating of satisfaction about the *officials*

The availability of qualified officials when I competed in my sport	<input type="radio"/>				
The knowledge and application of the rules demonstrated by qualified officials	<input type="radio"/>				
The level of respect the officials received from participants when I competed in my sport	<input type="radio"/>				

* indicates a skiplogic question on the online questionnaire. If a yes was answered, the questions proceeding the question would show up, If a no was answered, the survey would move toward the next starred question.

** indicates a skiplogic question on the online questionnaire. If a yes was answered, the questions proceeding the question would show up, If a no was answered, the survey would move toward the next double starred question.

Appendix D: OUA Coaches Initial Contact Script

Dear Coach of University Volleyball Team,

My name is Greg Simone and I am a Masters student working under the supervision of Dr. Luke Potwarka in the Recreation and Leisure Department at the University of Waterloo. I am contacting you through the email listed on your university's volleyball page. The reason I am contacting you is that I am conducting a study that looks at the engagement of former OUA volleyball players in the participation of volleyball today. The reason that I am contacting you is that I am currently seeking former OUA volleyball players as participants for this study and would like request for a recruitment e-mail to be sent on my behalf to your list of former volleyball players.

Participation in this study involves your former OUA volleyball players filling out an online questionnaire. The questionnaire contains 44 questions to complete. The questions ask about four different themes; Demographics questions (age, sex, living situation, financial situation), Participation in volleyball (did you play volleyball in the past year, how many weeks you played for, how long was each volleyball session), How involved a person is with volleyball (volleyball is very important to me, volleyball occupies a central role in my life, I identify with people and the image associated with volleyball), and the quality of the university sport experience (the opportunities to improve overall performance, the social aspects, coaching, the facilities). Participation in this study would take approximately 30 minutes of their time. In appreciation of emailing these former OUA volleyball players on my behalf, I will gladly send you the results of this study once my thesis is completed, anticipated by December 31, 2017. I would like to assure you that the study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee.

If you are interested in having your former university athletes participate, or if you have any questions about this study, please contact me at gsimone@uwaterloo.ca or my supervisor at lrpotwarka@uwaterloo.ca. I will then send a confirmation email indicating that you have agreed and provide you with further information concerning the next steps of this study.

Sincerely,

Greg Simone
University of Waterloo
Recreation and Leisure Department

Appendix E: Yes to Participation Script

Thank you for agreeing to participate in my thesis study! The help you have provided me is greatly appreciated. Please copy and paste or forward the following message to your list of former volleyball players that participated on your team.

Once again, thank you for your help recruiting your former players for participation in this study. If you would like me to send you the results of this study once my thesis is completed, please reply to this email and I will send you the finished report anticipated by December 31, 2017.

Greg Simone

Dear Former University Volleyball Player,

My name is Greg Simone. I am a former OUA volleyball player and Masters student working under the supervision of Dr. Luke Potwarka in the Recreation and Leisure Department at the University of Waterloo. I have been in touch with the current coach of your former school team and I have asked him/her to kindly pass on this e-mail to all of their former players because I am conducting a study of the engagement of former OUA volleyball players in volleyball. We are currently seeking volunteers to be participants in this study.

Participation in this study involves the completion of an online questionnaire. The questionnaire will contain 44 questions to complete. The questions ask about four different themes; Demographics questions (age, sex, living situation, financial situation) Participation in volleyball (did you play volleyball in the past year, how many weeks you played for, how long was each volleyball session), How involved you are with volleyball (volleyball is very important to me, volleyball occupies a central role in my life, I identify with people and the image associated with volleyball), and the quality of the university sport experience (the opportunities to improve overall performance, the social aspects, coaching, the facilities). Participation in this study would take no more than 30 min of your time. In appreciation of your time commitment, you can be entered into a draw to win a volleyball prize pack consisting of a sweater, T-shirt, socks, and a Mikasa volleyball donated by Canuck Stuff. I would like to assure you that the study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. However, the final decision about participation is yours.

If you are interested in participating, please click or copy and paste the link below to be redirected to the online information letter for more details about what your participation will involve. Please enter the password “**alumni**” to view the information letter and then be directed to the questionnaire.

volleyballinvolvementthesis.strikingly.com

The questionnaire will be open for one month for you to input your responses.

If you have any questions regarding the study, please contact me at gsimone@uwaterloo.ca or my supervisor Luke Potwarka at lrpotwarka@uwaterloo.ca and we will get back to you as soon as possible.

Thank you for your time and sincerely,

Greg Simone
University of Waterloo
Department of Recreation and Leisure Studies

Appendix F: Thank You Script

I would like to thank you for your participation in this study entitled An Exploration of Factors that Influence Post-Varsity Sport Participation: The Case of Former Ontario University Athletic (OUA) Volleyball Players.

As a reminder, the purpose of this study is to explore factors that predict post-varsity sport-participation among a sample of former OUA volleyball players. Specifically, this thesis will explore relationships among enduring involvement (EI) (attraction, centrality, social bonding, identity affirmation, and identity expression (Kyle, Absher, Norman, Hammitt, & Jodice, 2007)); Quality of Sport Experience (opportunities to improve overall performance, exertion and fitness, release and diversion from everyday life, social aspects, people and staff involved in organizing your sport, ease of participating in your sport, facilities and playing environment, coaching, officials, value for money (Rowe, 2012)); Time (the amount of chronological distance from when they left from the team); and post-varsity participatory behaviors (playing or coaching volleyball)..

The data collected through the online questionnaire will contribute to a better understanding of the appropriate direction of future development in enduring involvement and information necessary for the development and implementation of programs to help former players stay engaged.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE#22343). If you have questions for the Committee contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca.

Please remember that any data pertaining to you as an individual participant will be kept confidential. Once all the data are collected and analyzed for this project, I plan on sharing this information with the research community through seminars, conferences, presentations, and journal articles. If you are interested in receiving more information regarding the results of this study, or would like a summary of the results, please contact the researchers after the anticipated completion date of December 31, 2017. In the meantime, if you have any questions about the study, please do not hesitate to contact me or my supervisor Luke Potwarka by email as noted below.

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