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"SPORT AS A RESOURCE CARAVAN": EXAMINING THE ROLE AND EFFICACY OF SPORT AS A RESOURCE PROVIDER FOR ADULTS IN TRANSITION

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"SPORT AS A RESOURCE CARAVAN": EXAMINING THE ROLE AND EFFICACY OF SPORT AS A RESOURCE PROVIDER FOR ADULTS IN TRANSITION

by

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Dissertation

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

The University of Texas at Austin

August 2014

Dedication

To my loving family! First, to my beloved son, Kian. You make life worth living everyday and I'll always remember listening with you to your favorite song *Find Yourself* from the movie, *Cars*. It is emblematic of this educational journey, as I have questioned myself through twists and turns along the way. But, through you, I always find myself when I get lost. Through you, I am illuminated and blessed to know my purpose.

To my grandmother, I promised this to you long ago....I am fulfilling this promise to you and will do for the rest of my life. I miss our bond, but I know that this career will forever connect us.

To my mom and dad, your belief, support, and encouragement are unwavering. You are the rocks in my life and two role models that I look up to and admire every day. Your grace, intelligence, and class in so many situations are inspiring. I do not respect and learn from anyone more than the both of you and for that, I cannot thank and love you enough.

To my Uncle Rich, you provided memories of summers full of joy, influential sport experiences, and a pure love of New England. You showed me what a great lifestyle and rewarding experience an educator career can bring...I'm glad to follow your footsteps.

To my sister...keep your head up and allow this to be proof to you that if I can do this, you certainly can do anything. You are incredibly loving, sweet, and empathetic to everyone around you...continue to be positive and good things will become magnetic.

Finally, to my beautiful and caring wife, Alicia...simply put, I could not have accomplished this without you, both literally and figuratively. We, too, have had an interesting journey, but you always know the best road to take, even when I do not like

asking for directions! Thank you for allowing me to follow my dream and loving me for who I am. I love you...always will!

Acknowledgements

Henry David Thoreau wrote about one of the most pleasurable activities a person could embark upon: walking. A journey that takes a person away from their comfortable abode, both figuratively and literally, to return to the "wildness" of Nature in which one is part and parcel. He states in his essay, *Walking*:

> It is true, we are but faint-hearted crusaders, even the walkers, nowadays, who undertake no persevering, never-ending enterprises. Our expeditions are but tours, and come round again at evening to the old hearthside from which we set out. Half the walk is but retracing our steps. We should go forth on the shortest walk, perchance, in the spirit of undying adventure, never to return, prepared to send back our embalmed hearts only as relics to our desolate kingdoms. If you are ready to leave father and mother, and brother and sister, and wife and child and friends, and never see them again — if you have paid your debts, and made your will, and settled all your affairs, and are a free man — then you are ready for a walk. (Thoreau, 2010, p. 1-2)

Ironically, the motif throughout this dissertation as well as my Ph.D. experience emulates a journey away from my own comfort zone. Of course, preparing for the journey is done with the best intentions and eagerness. Along the way, you find out how pointless it all was as your naiveté rears its ugly head. Nevertheless, adjusting from the ups and downs, experiencing the flashes of brilliance and the moments of ineptitude, or managing the ebbs and flows of motivation is essentially a xenolithic and "wild" experience. In the end, I realized how much different the resulting destination could have been. But the journey is never about the end result, nor is it anything that you could have imagined in the first place...the outcome truly does not justify the means. The quality of the experience and where you eventually end up rests upon the people you encounter along the way and the relationships you build. Now, I am illuminated on just how incredible (and lucky) my experience was and how proud I am of the end result because of them. A new ventured "walk" will begin soon for me and the journey will never cease.

But, in order to prepare my continuance, it is my duty to "pay my debts and settle my affairs" with those who have invested in me. Thus, it is my pleasure to introduce and "repay my debts" through acknowledging my classmates, dissertation committee members, and teachers/colleagues who are (and will continue to be) my mentors, motivators, comedians, "sherpas," teammates, and very good friends.

First, my classmates who were essential to my development and integral to my experiences as a Ph.D student were: Ted Burden, Dr. Matthew Katz, Dr. Amy Rundio, Jeff Graham, George Kioussis, Ryan Kim, Tolga Ozyurtcu, Natalie Smith, Seth Kessler, and the rest of the UT sport management and sport studies crew. Each of you are admired and respected far more than you know....thank you for guiding me through this process with your caring support, inspiring talent, and stress-relieving comic relief. I have learned something different from everyone, contributing toward this wonderful journey. I am very proud and honored to be associated with you as my Longhorn brethren. Hook 'em!

Second, my dissertation committee is an eclectic group of incredible scholars, intellectuals, and compassionate role models: Dr. Matthew Bowers, Dr. Jessica Cance, Dr. Tracie Harrison, Dr. Thomas Hunt, and my co-advisors Dr. Carole Holahan and Dr. B. Christine Green.

Dr. Bowers--you were one of the first people to encourage me to "get on the bus" and delve into the depths of sport development. Every step of the way you have believed in me and my creative message. I have unwavering respect for your talented abilities as both a researcher and educator. Your support has been and will continue to be a source of structure and meaning. Thank you!

Dr. Cance--I first learned how amazingly brilliant and dedicated you are during class, and I said to myself, "I have to have her on my committee!" Your assistance,

knowledge, tough love, and ultimate belief in me gave me the confidence I needed to finish this but also to know how to overcome any challenge in the future of my career. For that, I'm forever grateful and I hope I can continue to learn and work with you in the future.

Dr. Harrison--I never knew that someone so sweet and kind could be so intellectually intimidating. I finally can speak to you without stumbling over my words trying to impress you, because I realized now how compassionate, patient, and faithful you constantly give to me and all your students. Thank you for allowing me to stumble, get up, and continue to reach for my dream.

Dr. Hunt--When I first came to UT, the reputation you had as a great scholar was inspiring and motivational. It was difficult to realize how approachable you would be, but I now realize that your selfless and humble attitude is but one reason why you are so successful. In addition, every student needs some comic relief and realistic perspective to finish, and I cannot express enough in words how appreciative I am of those traits.

Dr. Holahan--Without your adult development class, I would not be writing this dissertation. I am in awe of your accomplishments, but more importantly, I am in disbelief of how much you have taught me throughout this process. I am inspired and feel very lucky to have you as a mentor and confidant. Thank you so much for constantly being there when I needed you and I am obliged to return the favor to you!

Dr. Green--Your legend with me grows every day. I am incredibly fortunate for you to have given me the chance to learn under your tutelage. It is quite difficult to match your keen insight, depth of knowledge, or breadth of achievements. But, your message has never been about replicating others or chasing extrinsic rewards....it has always been about being unique, blazing my own path, and creating substantive difference. You taught me that this requires independence, originality, patience, integrity,

creativity, and resolve. No doubt, I would not have become illuminated without your support and constant education. I always look forward to and cherish the time I spend with you because I learn so much...and I will make sure this continues. Again, thank you for believing in me and pushing me to take my own route....I am much better and prepared because of that...and because of you.

Finally, to some of the incredible people who have helped along the way and inspired me to understand what it takes to be a great scholar and colleague: Dr. Lawrence Chalip, Dr. Bob Heere, Dr. Marlene Dixon, Dr. Emily Sparvero, Dr. Jan Todd, Dr. Stacy Warner, Dr. Brennan Berg, Dr. Jacob Tingle, Dr. Randall Griffiths, Dr. Michael Sanders, and Dr. Mike Newhouse-Bailey. I am grateful, humbled, and will continue to reach out to you to return the favors you have willingly provided to me.

"SPORT AS A RESOURCE CARAVAN": EXAMINING THE ROLE AND EFFICACY OF SPORT AS A RESOURCE PROVIDER FOR ADULTS IN TRANSITION

David William Walsh, Ph.D.

The University of Texas at Austin, 2014

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Sport development is an emerging discipline in sport management due in part to the popular, normative associations between sport and its beneficial outcomes. However, concerns on how sport is used and designed as well as the miscomprehension of the word development cloud sport's utilitarian prospectus. Although research has started to address these concerns in youth and adolescent forums, research on adults using sport for developmental purposes is widely ignored. With life expectancy growing, the pressure to sustain living quality in late adulthood has become almost unmanageable. Maintaining quality of life in late adulthood is difficult. Drawing from human development and aging literature, quality of life is still possible in light of the challenges presented by multiple developmental forces. Developmental trajectories are the products of net gains and losses over the life course and are influenced by transitional events and the ability in people to adapt to them. In addition, development is both cumulative and innovative, which affirms that people in later stages of life can still develop. In order to do this, gerontological and psychological research argue that resources are key in the achievement of positive outcomes. However, research understanding mechanisms that affect resources that produce positive gains is still in its infancy. Hence, I constructed a

dissertation with two studies using a multi-method approach to ascertain the role and efficacy of sport participation on the transitional process that undergirds the developmental trajectory. The impetus for this approach was to examine the utility of sport as a developmental force adults could consider in improving their overall quality of life.

Study 1 used a life-history, qualitative method that reveals sports' role as an influential resource provider during life event transitions across a person's life. Data show that sport was believed to aid in the adaptation process that provided distinct benefits that other activities or support structures could not match or replicate easily. Study 2 used structural equation modeling to specify the magnitude of sport's role on resources during a specific transitional event that most adults will experience: retirement from the workforce. Quantitative evidence from this study yields support that sport participation can positively impact resources and retirement well-being directly. Both studies supply substantiation for the argument that sport participation can act as a positive developmental force for adults by assisting with the recruitment of resources and acting as a resource provider which affords adaptation assistance in transitions. The combined results demonstrate how sport may be viewed as a developmental tool which has practical implications for sport development and managers wishing to design sport for this purpose. In addition, the common assumption that sport development programming should be geared exclusively toward youth and adolescents is dismissed. This dissertation provides theoretical and empirical justification for creating positive adult developmental programming in sport.

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Chapter 1: Introduction

Transitions and changes in a person life are often difficult and pose challenges to people who may not be equipped to handle them adequately. Transitions are well known to be inextricably linked to long-term developmental processes over the life-course (Elder, 1994). Persons unable to adapt quickly to transitions may experience deficits that could stunt or create negative developmental trajectories (Elder, 1994; Schlossberg, 1981). Over time, these cumulative effects of deficient developmental experiences may create lower quality of life outcomes and hinder people's ability to age successfully (Baltes, 1987). Thus, research that can identify adequate strategies and tools to assist people in navigating transitions where deficits are mitigated is valuable from a quality of life perspective. One such tool that has shown to have the ability to produce wide-ranging beneficial impacts on individuals is sport participation. In addition, sport is widely promoted as a positive developmental force for youth and adolescents. However, research on sport participation's effects on adult development is broadly ignored. Development is often misconstrued to be a youth-only phenomenon. Further, weak theories and methodological challenges hinder the claims that sport can act as a developmental force. Hence, uncovering credible evidence and improved theoretical understanding of sport's ability and benefits during adulthood could help add an important strategy for adults experiencing transitions.

The following dissertation employs a multi-method research design that does provide evidence of sport participation's role and magnitude in its capacity to

significantly alter resources instrumental in transitions and human developmental processes. Specifically, we gain insight on sport's ability to act as a suitable strategy for adults to use when facing a transitional life event. This dissertation yields qualitative and quantitative data that supports sport as an effective and efficient tool adults could utilize to affect resources key in assuaging transitional events. Sport has not been considered in this way for adults. Hence, this dissertation helps justify and extend theoretical and practical implications that have just begun to be addressed in human development and sport management literature.

Study 1 used a life-history, topical biographical that showed how people believed sport participation served as tool to overcome life-event transitions. This was conducted using qualitative semi-structured interviews performed in a life story format and analyzed via thematic analysis. Next, Study 2 examined a specific transitional point (retirement) and illuminated a positive association between sport and resources known to contribute toward successful retirement well-being. Further, Study 2 reveals sport as acting as an influential resource itself. Quantitative self-report questionnaires completed by recently retired subjects was the mode of data collection. Data was analyzed using structural equation modeling techniques that assisted in explaining the associations among variables in the transition to adaptation framework. Results from both studies highlight sport's distinct value as a multi-system whereby resource exchanges could be more efficient and effective than other alternative strategies. Hence, strong support from multiple methods offer valuable inferences for future research to expound upon designing sport programs

that can consistently serve the interests of an aging population in order to achieve quality of life.

The remainder of this chapter presents the problem, background, and significance of this study. Chapter 2 discusses the relevant literature and theoretical underpinnings. Chapter 3 presents the methods of two separate but linked studies that helped provide an understanding to the research questions. Chapter 4 and 5 address the specifics of each study that includes the procedures, participants, data analysis, results, discussion, and limitations. Chapter 6 concludes with an overall discussion to move forward as a result of this study's contribution.

BACKGROUND AND SIGNIFICANCE OF THE STUDY

The oldest documented people to ever live were Jeanne Calment, a French woman who lived to be 122 years old, and a Bolivian man named Carmelo Flores Laura at 123 years old (Valdez, 2013). Carmelo credited his long life by saying, "I walk a lot, that's all" (Valdez, 2013). A positive, humbling outlook on life indeed, and examples of two feats of human endurance. One of human beings' greatest triumphs might be that the 60 years of age and older population has recently become the fastest growing age group in the world (CDC, 2011a). Since 1900, human life expectancy in the U.S. has increased from 47 to 79 years of age (CDC, 2011a), an achievement in human advancement and evolution which may be described as "successful."

One could argue that making it through the rigors of life to old age in itself could define "success." But recent research shows a contradiction, as a lengthy lifespan may

become a burden to the individual and to those around them (Alemayehu & Warner, 2004; Rikli, 2005; Tahmaseb-McConatha, Volkwein-Caplan, & DiGregorio, 2011). Since we are living longer, people are spending more time in retirement and late adulthood, which Levinson (1980) defined as the age group of 65 years and older. Due to this longevity, challenges of maintaining a "positive" and "successful" life have created imposing obstacles. Implications extend to both the individual and society. These include retirement planning, well-being maintenance, and health care provisions. In addition, declines in physical health, cognitive functioning, and psycho-social skills are normatively experienced and widely assumed as "just part of getting old." (Allender, Cowburn, & Foster, 2006; Baker, Fraser-Thomas, Dionigi, & Horton, 2010, Rikli, 2005)

Rowe and Kahn (1998) explained that successful aging includes three main components: (1) low probability of disease/disability, (2) high cognitive and physical capacity, and (3) active engagement in life. Successful aging suggests characteristics that describe quality of life (Cavanaugh, 1999). Quality of life in late adulthood becomes questioned because of rising health and financial costs society (and the individual) has endured. We are living in an age where chronic health illnesses (e.g., dementia, heart disease, diabetes) are more prevalent than ever before, and 50% of lifelong health care costs manifest after the age of 65 (Rikli, 2005). Although our quantity of life has been extended, strategies to support our ability to improve quality of life as fallen behind quantity of life gains. The discrepancy between quality and quantity of life is a growing problem. The validity of Rowe & Kahn's classification has become more of a maximum capability than a realistic probability. Evidence contradicted their typology and

suggested it as too stringent to characterize "successful aging" for the vast majority (Strawbridge, Wallhagen, & Cohen, 2002). Thus, "successful" aging and "quality of life" in later adulthood is debatable and currently untenable. As Kahn (2002) responded, "we hoped to invite researchers to investigate the heterogeneity among older people and to discover its causes--genetic, psychosocial, and environmental" (p. 726). The desire to achieve "successful" aging and continued, positive development warrants further examination and acceptance of Kahn's invitation.

Cavanaugh (1999) proposed successful development as the dual achievement of maximizing gains (i.e., desired outcomes) and minimizing losses (i.e., avoiding undesirable results). Investigating tools and/or strategies that have the capacity to influence these processes are required so appropriate remedies are offered to slow the growing quantity versus quality of life chasm. Alas, attention on developing interventions, research initiatives, and preventive education have become heightened in the pursuit to promote successful aging and quality of life outcomes (cf., CDC, 2011b; Elavsky et al., 2005; Hillman, Erickson, & Kramer, 2008). Promoting a physically active lifestyle has been one popular part of the recent discourse in positively affecting the aging process (e.g., King, Rejeski, & Buchner, 1998; Kramer & Erickson, 2007; McAuley, Mullen, & Hillman, 2013; Rikli, 2005). The plethora of rewards that physical activity can provide is lengthy and well-known, including physical, social, psychological, cognitive, emotional, and motivational benefits (Chodzko-Zajko, 2000; Warburton, Nichol, & Bredin, 2006). Despite the laundry list of benefits and the saturation of knowledge concerning these benefits, older individuals' physical activity participation

remain low. Ninety-eight percent of adults over the age of 50 recognize these benefits of physical activity, yet only a small percentage meet the daily physical activity recommendations (Ory, Hoffman, Hawkins, Sanner, & Mockenhaupt, 2003). Chodzko-Zajko further explicated that physical activity alone is insufficient to promote quality of life, as older persons need to be socially, intellectually, culturally and spiritually active. Designing and integrating holistic, innovative programming that can include a multitude of benefits, including physical activity, is needed to effectively and efficiently support quality of life and successful aging outcomes. Further, understanding the relationship between new programming and its possible influence on aging and developmental processes is essential before creating successful program design.

One form of physical activity that has empirical evidence to support multi-pronged outcomes is sport participation. Chalip (2006) described sport as having the ability to engender salubrious socialization and positive health benefits (e.g., physiologically, psychologically, cognitively) at the micro-level if designed and promoted properly. In a study on the social benefits of intramural sports, Artinger et al. (2006) concluded that team sports offer a unique setting that provides valuable social interaction, which is difficult to replicate by students themselves. The "sense of community" developed is essential to their personal development (Artinger et al., 2006). Further, Warner and Dixon (2011) found sense of community (SOC) composed of context-specific community features in a college athletic environment for 17-23 year old athletes. Hence, sports could be an acceptable setting that not only provides physical

activity benefits, but social benefits like social interaction and connectedness, important for well-being in older adults.

As a consequence of sport participation, psychosocial well-being may be increased through enhanced relationships between youth, adolescent, and/or adult groups. Studies suggested that psycho-social well-being increases through positive communication, support, encouragement, and advice (Artinger et al., 2006; Green & Chalip, 1998). Further, when compared to physical activity, Kilpatrick, Hebert, & Bartholomew (2005) found the intrinsic provisions that underpin the play component of sport are particularly functional in increasing adherence to physical activity. Adherence levels are critical for participants to gain the benefits that may be latent in shorter time periods. Fraser-Thomas, Cote, and Deakin (2005) showed how sport can affect physical, mental, emotional/psychological, and social health of youth participants, offering program designs that can stimulate "positive youth development" (PYD). Berg's (2012) holistic postulation of sport argued that sport should (and can) extend to all demographic groups beyond just youth participants. However, sport management and extant literature concerning sport provision neglect to examine the settings and systems of sport delivery for adult participation. This is especially absent in the discourse concerning sport as a developmental tool for adults. In comparison to youth and adolescence, sport development literature widely ignores the adulthood stage of life. More research in this area may add a comprehensive critique on sport delivery systems examined across the life span. Since research supplies support showing sport's ability to provide multiple

benefits and resources, additional research to address developmental components via sport participation is justified

According to Baker et al. (2010), sport participation facilitated positive development in older adults by helping them negotiate the aging process, providing motivation for physical activity and challenging age-related stereotypes. They pointed to a unique context of sport provision, called "Masters Sport." Masters Sport promotes opportunities and outcomes normally absent in regular physical activities, like social interaction, self-efficacy, or sense of belonging. "Masters sport allows older people to regularly compete against others within a similar age range in a variety of individual and team activities" (Baker et al., 2010, p.2). Design elements in Master Sport seem conducive in catalyzing developmental outcomes, but more research is needed outside of this unique setting to understand if sport continues to render this capability.

Chalip (2006) admonished that sport should not be a replacement of physical activity or other similar activities, but should be viewed as a preferred outlet for physical activity promotion and provision. Ubiquitous claims of sport typically assert it to be positive, particularly as a developmental tool for youth and to help spawn social change (Green, 2008). These claims need more empirical evidence if we are to change them from illegitimate to valid. Coalter (2010) suggested that sport programs' efficacy on development is equivocal due to the lack of systematic research that provides evidence and theoretical justification. Moreover, both Coalter (2010) and Black (2010) expressed a need for more effective methods to clarify and appraise sport as a developmental force. They argued that understanding the ontology of the word development and its evaluation

vis-a-vis sport needs further explanation. Thus, a model that could explain sport's relationship to components influential to the developmental process would help extend sport development literature and make contributions in an area that has been typically ignored: adult developmental sport programming.

PURPOSE OVERVIEW

The impetus for this study was to examine sport participation as a developmental tool for adults and provide a theoretical model that explains its efficacy on important resources necessary for overcoming transitions. The way people adapt to transitions is important to their future development. Previous research and common assumptions suggest that people believe sport has the capacity for beneficial outcomes. Thus, people may be more inclined to seek sport participation out for the purpose of using it for their individual needs. However, outcomes from sport participation are not guaranteed, and using sport developmentally for adults is not well-known and widely ignored. Hence, this study aimed to conduct research on clarifying sport's role as people progress through the life course and throughout adulthood. This study also aimed to illuminate the impact sport has on resources and transitions instrumental in shaping lifelong developmental trajectories. Currently, increasing understanding on how sport influences the factors and elements of development, rather than seeking developmental outcomes, would contribute to the sport development literature. Therefore, I offer theoretical and empirical evidence to elucidate this issue. The retirement transition point was examined for this purpose due to its common occurrence in individuals at the latter stages of the life structure. The

study's significance may impact how we view sport's role as a tool in influencing salient resources that induce positive development. In addition, this study helps direct future designs of sport to maximize sport's value in late adulthood and to possibly serve as a foundation for other investigations across the entire life span. Finally, the results of this research advance objective evaluations that ascertain sport's predictive ability to positively influence developmental trajectories toward successful aging. This extends the human development literature by identifying a plausible strategy people can use for quality of life enhancements. Consequently, perspectives on designing sport to help people achieve a higher quality of life in adulthood via positive development are postulated. Longitudinal methods across a person's life are encouraged for future research that examine leveraging sport as a developmental tool for successful adaptation purposes.

Chapter 2: Literature Review

HUMAN DEVELOPMENT AND AGING

From a human development and aging perspective, development is widely considered as a process that embodies change and a resolution to that change (Cavanaugh, 1999; Aldwin, Park, & Spiro, 2007). Three major paradigms in the field of human development have dominated the discourse over the last few decades: (1) life-stage development, (2) life-span development, and (3) life-course development. "Stage" theorists fundamentally study the episodes of the developmental process and how people respond to changes that have precipitated a new stage. Erikson (1950) studied how people need to resolve certain issues in psycho-social stages before they could "progress" and "develop" through to the next stage. The speed at which people move through these stages is heterogeneous, and people may not ever move on. Piaget (1962) is similar in this regard but dealt mostly with child and adolescent development. Piaget (1962) envisaged development as an end goal to strive for as we overcome mediating stages. Maslow (1970) delineated a motivational need hierarchy that purports human behavior as dependent on a satisfaction of needs prioritized from a low to high level. It was Maslow's impetus to describe humans striving for growth, perhaps over a lifetime.

The general assumption in theoretical research was to analyze adulthood as a single stage, leaving the more critically examined studies to the phases of childhood and adolescence in the context of developmental psychology (Levinson, 1980). Erikson (1959) was adamant in supporting the inclusion of the entire life span, as social forces

come to bear as people aged, causing individual needs and personal identity to constantly change. The work of Levinson (1980) proposed the idea of approaching adulthood in a sequence of stages or periods, arguing a "full life" point-of-view that highlights its multidirectional and multidimensional nature. This dynamic outlook acknowledged adulthood's stability and change over time in what Levinson calls a *life structure*. His adult developmental theory stated that each episodic period encapsulated tasks that were inherently developmental, essential work people must engage in to form a way of living that is normative to their time of life. Thus, providing a basis on which further development can occur in subsequent periods. He defined the life structure as a "pattern or design of a person's life, meshing of self-in-world" (Levinson, 1986, p. 278). Although Levinson (1986) supported development as a process, he stressed the value of examining each age-graded stage in comparison with others in influencing the shape of the *life structure*; therefore, discovering if development occurred. However, he described what developmental outcomes appeared like at each stage, not necessarily how development unfolds. Neugarten (1979) opposed this view as she posited a "fanning" out of an individual as they age and examining stages in comparison with one another does not account for the variability within stages. In other words, Neugarten (1979) suggested that as life progresses, people become more complex and different from one another. Conceptually, this can be understood by invoking the second law of thermodynamics, which states that entropy always increases and never decreases. So, as you age, you face more changes and disorder in your life that make you much more unique to your fellow cohort as life advances. Nevertheless, life-stage development does not clearly describe

how stages connect, what apparatus or mechanism connects them, or how they form. Heterogeneity and variance from this perspective are difficult to explain. Levinson (1986) believed it to be necessary "to create a new perspective that combines development and socialization that draws equally on biology, psychology, and social science, as well as on the humanities." (p. 13) In this sense, factors and their influence on people's development can be studied and better understood for the purposes of positive altering the developmental process.

Vygotsky (1978) posited that development is a process, not a product to obtain. Further, he proposed the developmental process as subsuming other processes, like learning, which have their own rate of change and oscillations. This is in alignment with life-span and life-course viewpoints. Life-span development is defined as the constancy and change of behaviors throughout the life cycle (Baltes, 1987). This approach is more fluid and integrated than life-stage development. It supports the notion that development is a compilation of both gains and losses, depending on a person's chronological, psychological, and biological age (Baltes & Baltes, 1990). From this perspective, development does not infer positive (or negative) outcomes, or "higher levels," that are desirable to achieve. Additionally, Baltes (1987) proposed the developmental process as both continuous (i.e., cumulative) and discontinuous (i.e., innovative). This is contrary to the stereotypical assumption of aging many have historically held that people are precipitously "doomed to death in old age." In other words, Baltes rejects the global assumption that people reach a point where decay, rather than development, is constant and inevitable. For example, Baltes defined aging within a framework of development,

similar to Vygotsky. According to Baltes, one can learn new things and apply years of knowledge and experience to reach even greater conquests not thought possible in an earlier life stage. Even in advanced biological time, it is still possible to learn new skills, build on earlier skills, and obtain positive net gains that were not present earlier in life. In another example, Hertzog, Kramer, Wilson, & Lindenberger's (2009) work strongly advocated that the cognitive processes of the human brain are far more malleable than previously thought. They provided strong evidence for high plasticity of the brain well into our late, adult stages. This idea extends past cognitive processes to physical, social, and other psychological functioning in life-span development. This process, however, is not easily navigated because of the multidimensional nature of development, which is influenced through various forces that can alter a person's late adulthood period of living. Although decay and decline is surely present as we age, so is progress and improvement, which symbolizes the duality of developmental processes in humans.

Cavanaugh (1999) explained four developmental forces: (1) biological (i.e., genetic, physiological, and health), (2) psychological (i.e., cognitive, emotional, and personality), (3) socio-cultural (i.e., interpersonal, societal, and cultural), and (4) life-cycle (i.e., differences in how the same event affect people at different points in their lives). An example of a biological force is health deterioration due to a family history of disease. Or, a psychological force is cognitive function decline as described by "the use it or lose it" hypothesis: neglecting to stimulate the mind in ways that preserve cognitive mechanisms necessary for proper function (Hertzog et al., 2009). Therefore, it is imperative to learn value-laden ways that positively affect these developmental forces if

we want to lead productive and fulfilling lives in late adulthood and continue to strive for balance in the face of decay. Although people can still positively develop during aging, these forces make it more difficult. Hence, emphasizing a need to understand counter-forces that can deflect or inoculate negative losses becomes important. Consequently, Baltes & Baltes (1990) implied the way people meet the challenges of aging successfully is by developing compensatory strategies that overcome losses. The effects of not realizing these developmental forces and counter-strategies could be severe in understanding how to influence developmental trajectories and impel successful aging.

The life-course perspective is similar to life-span development, but underlines two major developmental forces as central tenets of the aging process. The life-course perspective emphasizes social and contextual factors in addition to retaining the central principle of fluidity between gains and losses proposed by the life-span paradigm (Elder, 1985). This was consistent with Erikson's (1950) and Levinson's (1986) postulation that social forces need inclusion when speaking about development over a life cycle. Elder (1985, 1994) described the life-course perspective as such: Developmental processes and outcomes are shaped by the social trajectories that people follow, both advancement and demotion, where transitions and adaptations are always embedded. The life-course broadly refers to the interweave of age-graded trajectories that are dependent on changing conditions, future options and short-term transitions (Elder, 1985). Transitions, or changes, and responses to those transitions are fundamental elements that undergird the developmental process according to the life-course perspective. They are fundamental in explaining "how" the life stages of development, as described by Levinson (1986), form,

connect, and function. In other words, transitions are the fundamental particles binding the entire life structure together, according to the life-course paradigm. Imagine for a moment if change never occurred...could development be possible? Elder (1985) considered a life-course as a sequence of transitions, entries, and exits that create a developmental trajectory. Transitions give form and meaning to the life trajectory (Elder, 1994). Thus, the "quantum" particles of a person's overall developmental curve are transitional events and how we approach and adapt from them. Theoretically, influencing transitions and the factors that encompass the transitional process can influence the life trajectory of a person.

Schlossberg's (1981) transitions and human adaptation model in Figure 1

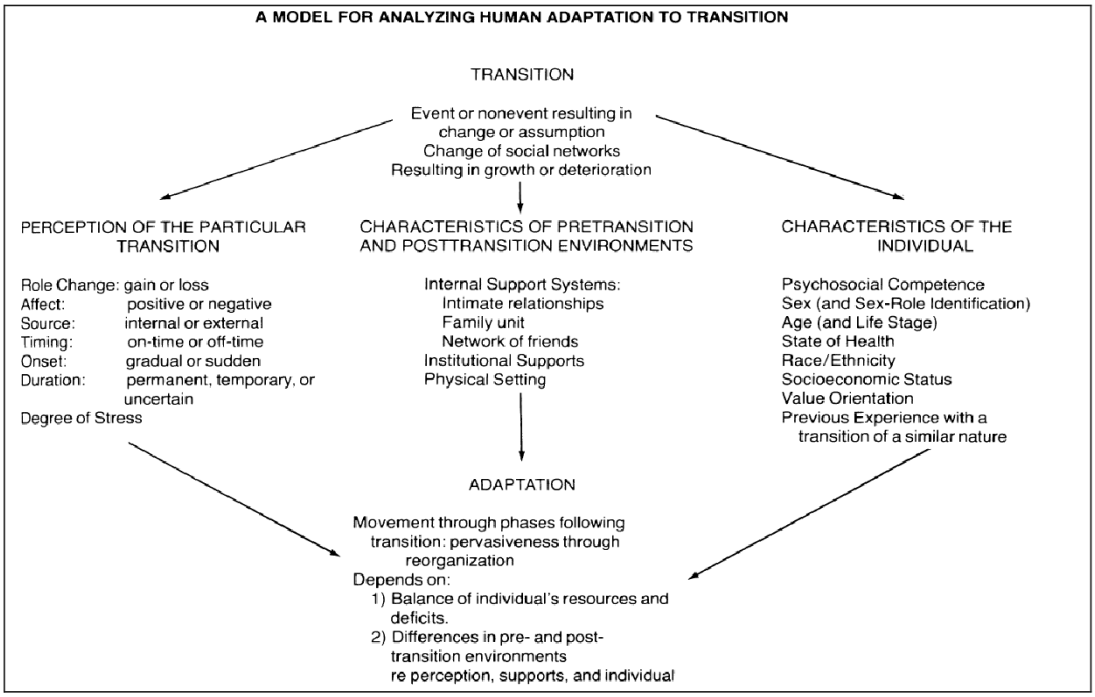


Figure 1: Schlossberg's Model of Transitions

describes the factors that mediate the transition to adaptation process. Although this model is an amalgamation of perspectives from many of the human developmental viewpoints (cf., Lieberman, 1975; Lipman-Blumen, 1976; Lowenthal & Chiriboga, 1975; Parkes, 1971), Schlossberg stressed the most influential paradigm in its construction was that of the life-course perspective as it includes necessary social forces known to influence human development. *Transitions*, defined by Schlossberg, are any events or non-events (viz., event that someone thought was going to happen and does not) that catalyze a change, warranting a corresponding response (or adaptation) to that change. *Adaptation* is defined by Schlossberg as when a person accepts and fully integrates that transitional event into their life. Important factors mediate the transition to adaptation process: (1) perception of the transition (e.g., source, timing, duration, affect), (2) pre- and post-transition environment (e.g., intimate support relationships, institutional support relationships and the physical setting), and (3) individual characteristics (e.g., psycho-social competence, gender, age). Moreover, successful adaptation depends on the balance of resources within the mediating factors (Schlossberg, 1981). This concept is a central principle of Lowenthal and colleagues' (e.g. 1968, 1975) work on adaptation to many stressors during the life course, highlighting the importance of individual resources (e.g., social, mental, physical) to overcome transitional deficits. Of course, this model has limits. The relationships between constructs suggest only an unidirectional relationship and does not explain relationships among the mediating factors. In addition, the model has never been empirically tested directly with quantitative results that examine the relationship between the variables and utilize it as an assessment tool. By

doing so, two major results could be illuminated: (1) Developmental outcome measures can be evaluated in the short-term based on how quickly someone can adapt through the balance of the resources that affect the factors of a transition, and (2) understanding the relationships between the constructs and the relative strengths of each construct that underpin the transition to adaptation process. As a result, designing, creating, and promoting programs and/or interventions specifically to positively affect development as we age may become a reality.

Finally, a discussion on human development would be incomplete if limited to the individual level. Thus far, I have explained literature on development that provides fair acknowledgment of environmental forces. But, a holistic interpretation is necessary to ascertain development accurately in the context of a life-course paradigm. From an ecological point of view, individual human development resides at the center of an entire environmental system. The works promulgated by Bronfenbrenner on the ecology of human development provide solid theoretical foundations. In his seminal piece, Bronfenbrenner (1977) advanced a broader approach to human development that encompasses

> the progressive, mutual accommodation, throughout the life span, between a growing human organism and the changing immediate environments in which it lives, as this process is affected by relations obtaining within and between these immediate settings, as well as the larger social contexts, both formal and informal, in which the settings are embedded. The ecological environment conceived topologically as a nested arrangement of structures, each [level] contained within the next. (p. 514)

As Bronfenbrenner proposed, the levels begin at the core center, *microsystem*, where the person develops through a complex setting of relations between the person and

the immediate setting or environment containing that person. The *setting* is a place with specific physical features "in which the participants engage in particular activities in particular roles (e.g., daughter, parent, teacher) for particular periods of time." (Bronfenbrenner, 1977, p. 514) Moving outward to progressively broader arenas containing the *microsystem* and *setting*, there are four other systems: (1) *mesosystem*, (2) *exosystem*, (3) *macrosystem*, and (4) *chronosystem* (Bronfenbrenner, 1977, 1994). The *mesosystem* is essentially a system of *microsystems* where it links the processes occurring between two or more settings in which the individual person resides (e.g., relations between home and school; home and sport activity) (Brofenbrenner, 1977). Next, the *exosystem* contains and links the processes happening between two or more settings where at least one does not include the person, but contains events that indirectly influence processes in the setting the person resides (Brofenbrenner, 1977). An example may include a parent with an *exosystem* for that parent being the relation between the home and the child's sport team. *Macrosystems* comprise of overall patterns of *micro-*, *meso-*, and *exosystems* characteristic of a given culture or subculture (Brofenbrenner, 1977). This system embodies the belief systems, bodies of knowledge, material resources, customs, life-styles, opportunity structures within the fabric of each sub-system (Brofenbrenner, 1994). Socio-cultural norms and forces, explained by Cavanaugh, would capture the *macrosystem*. Finally, the *chronosystem* consists of the time dimension in the study of human development. This system highlights change or consistency over time that comprises both the individual and the environment in which the person lives (Brofenbrenner, 1994). In addition, Brofenbrenner described patterns of

events and transitions over the life course within the *chronosystem.* This would encapsulate the life-cycle developmental force expressed by Cavanaugh. A graphical conceptualization is provided in Figure 2.

Importantly, the model illustrates the integration of environment and individual, internal and external developmental forces, and how the transition to adaptation process, explained by Schlossberg, fits in the grand scheme of the life-course developmental theory. Human development, as espoused by Brofenbrenner as well as other developmental theorists, is too complicated and complex to be conceptualized through just one theory or paradigm. Thus, I take the approach of researching development from the individual experience first then move outward to the environmental levels, starting

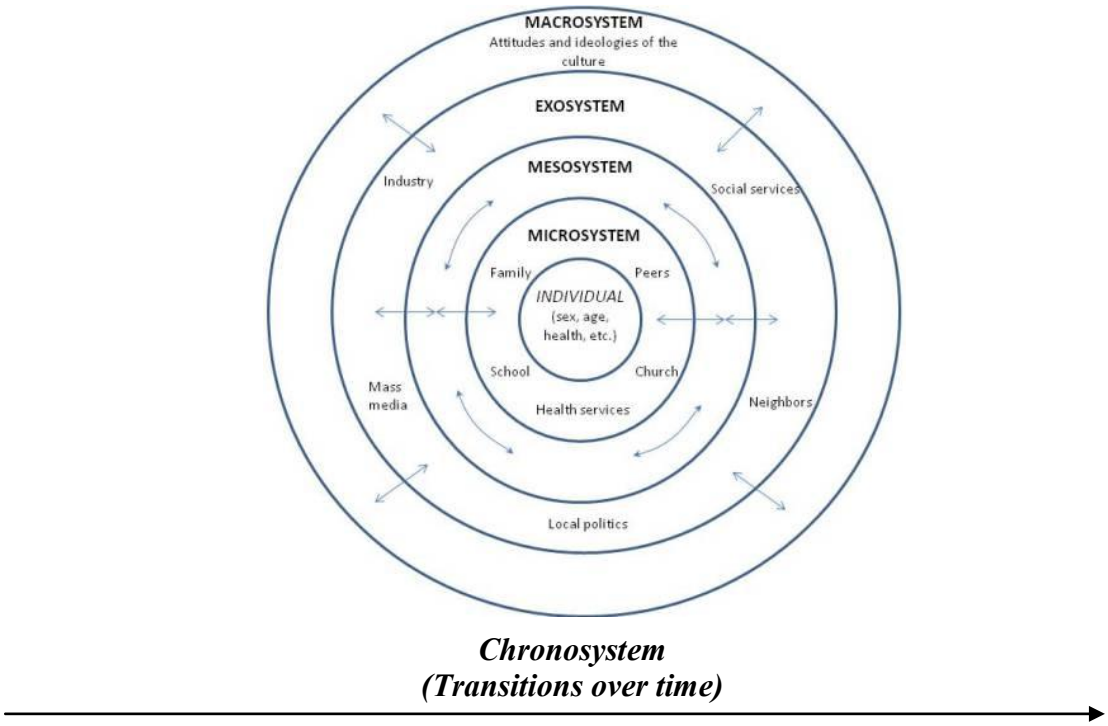


Figure 2: Bronfenbrenner's Ecological Model

fundamentally with the transition to adaptation process. Moreover, sport as a context/setting was examined in relation to the transition to adaptation process at the individual level to decipher its role on this process.

RESOURCE THEORY AND THE RETIREMENT TRANSITION

Schlossberg explained that a person's ability to adapt from transitions depends on the person's balance of resources, both individually and environmentally. If resources are distressed or equilibrium is negatively altered due to resource loss, then a person takes longer to adapt and may face a more difficult time in their ability to cope. Hobfoll (1989) advanced a stress model that explained how resources play a pivotal role in someone's ability to overcome life stressors, such as transitions. The model is called Conservation of Resources (COR) and posits that people strive to retain, protect, and build resources in order to avoid the threat of actually or potentially losing them (Hobfoll, 1989). Hobfoll defined *resources* as "those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies" (p. 516). Later, Hobfoll (2002) more broadly defined *resources* as the total capability an individual has to fulfill his or her centrally valued needs. The significance of resources has two themes: (1) They serve to be instrumental to people and (2) they serve as powerful symbols that help define people (Hobfoll, 1989). If resources are lost, then stress is heightened and cannot be assuaged until resources are added or replaced. People may indeed feel a loss of identity or sense of self if resources symbolize the definition of themselves. Certain situations trigger stress, like the transitional event described by Schlossberg and Lowenthal. Thus, in

synthesizing these two theories, transitions are events that can cause stress, affecting a person's ability to adapt because resources are disrupted. However, if one can replace or add resources in response to the transitional event, then stress can be reduced and adaptation more quickly realized. Including Brofenbrenner's ecological theory, a person may be exposed to or find relief from stress depending on the system they are in or are influenced by the developmental forces (Cavanaugh, 1999) within it. This would also be salient in Schlossberg's description of the pre- and post-environmental factors that mediate the transition to adaptation process.

In essence, Hobfoll argued that when faced with stress (or a "stressor"), people try to minimize the net loss of resources as a natural response or coping mechanism. Effectively, Hobfoll described stress *in terms of* the relevant resource composition a person has or potentially has access to when faced with a life event. If resource composition is disrupted, then stress will occur. In addition to resources, the magnitude of context and strategies when assessing a transitional event manifests. Ergo, a realistic proposition asserts that changing or finding systems in order to be more advantageous, in regards to stress reduction and resource attainment, for the individual may help a person adapt and develop. Identifying those salient systems and types of resources then becomes necessary.

The COR model identifies four kinds of resources whose loss and/or gain result in stress or well-being: (1) object resources, (2) conditions, (3) personal characteristics, and (4) energies (Hobfoll, 1989). *Object* resources have some physical value or their value lies in its scarcity (e.g., a single-family house). *Conditions* are valued because they are

sought after, like marriage, tenure, or seniority. *Personal characteristics*, in general, aid stress resistance and are categorized most commonly as personal traits and skills. *Energies* include time, money, and knowledge, and they are valued for their ability to acquire other kinds of resources. Of course, actual loss of these resources is important to Hobfoll's conceptual explanation of the model; however, he acknowledged that appraisal and perception of these resources are just as important. Further, both Neugarten (1979) and Schlossberg (1981) explained that contextual factors that contain transitions are important when assessing adaptation to the transition. Examining different transitional points and contexts across the life course is essential as stressors, appraisals, transitional events, contexts, and resource composition are in constant flux. So, identifying a system where perceptions of resources can be modified is also just as important. Lastly, understanding specific transitional events is appropriate to determine the unique forces, resources, and settings that relate and affect developmental trajectories.

Retirement transition. A common life-event transition and contextual setting in late adulthood is retirement. Retirement is often assumed to be an important event that people look forward to and prepare for, particularly financially, many years in advance. *Retirement* is defined as the event when an individual departs from the workforce and stops receiving full-time, work-related wages (Pinquart & Schindler, 2007). This event usually occurs around the age of 65, depending on the laws of a particular country. For example, in the United States, 65 is the retirement age for people born in 1938 or later, gradually increasing to the age of 67 for people born after 1959 (www.ssa.gov/pubs/ageincrease.htm, 2013). Not surprisingly, due to the rise in life

expectancy, Pinquart and Schindler (2007) pointed out that older adults spend an increasing amount of time in retirement. This trend will continue as our quantity of life expands. Commonly, "retirement is considered a major milestone in later adulthood that is associated with changes in daily routines, social roles, social contacts, and income" (Pinquart & Schindler, 2007, p. 442). Further, Hopkins, Roster, and Wood (2006) suggested that retirement often causes significant changes in the availability of one's resources (e.g., time, money, social support). As resources increase, people's positive appraisals of retirement also increase. This is a central proposition in the transitional to adaptation process. As expressed earlier, in order to adapt from the retirement event, one must positively perceive the transition and be able to balance the resources affecting one's adaptation. Carver & Scheier's (1981, 1982) Control Theory states a need to feel in control of one's circumstances and to retain or increase available resources. This is paramount as a basic need of individuals and supports Hobfoll's (1989) COR model. Thus, specific retirement resources and factors that affect well-being are critical to understand in a quality of life discourse.

Many reasons and resources affect a person's well-being when they become retired. Aldwin & Gilmer (1999) described well-being in later life as a fusion of physical, psychological, and social health. Schlossberg (1995) and Fouquereau, Fernandez, and Mullet (2001) explained four groups of variables that influence retirement adaptation and well-being: (1) personal characteristics (e.g., mental competence, physical health), (2) resources before and after retirement (e.g., finances, social networks), (3) coping responses, and (4) situational variables. Further, Wang & Hesketh (2012)

conceptualized overall well-being as a multifaceted construct that includes fiscal, physical, social, and psychological well-being. They argued that five major factors affect overall well-being in retirement: (1) individual characteristics (e.g., mental and physical health), (2) pre-retirement job related factors (e.g., role identity), (3) family related factors (e.g., social support, marriage), (4) retirement transition-related factors (e.g., voluntary, on-time), and (5) post-retirement activities (e.g., leisure, volunteer work). As explained by Wang, Henkens, and van Solinge (2011), these factors can be conceptualized as having direct associations with all of the different types of resources retirees have during the transition to adaptation process. They defined these resources in terms of the following typology: (1) physical, (2) cognitive, (3) motivational, (4) financial, (5) social, and (6) emotional. For example, retirees' marital status, marital quality, and social networks are related to their social resources; physical and mental health, pre-retirement work stress, and post-retirement leisure activities are associated with their physical, emotional, and cognitive resources (Wang et al., 2011).

Adaptation to retirement can be problematic and not necessarily smooth. Many studies in the retirement adjustment gestalt have produced a wide variation of findings that suggest positive, negative, and indifferent results (e.g., Calasanti, 1996; Gall, Evans, & Howard, 1997; Kim & Moen, 2002). This included studies that suggested retirees' pre-retirement physical health is strongly associated with positive well-being in retirement (e.g., Beck, 1982; Pinquart & Schindler, 2007; Zhan, Wang, Liu, & Shultz, 2009). Martin-Matthews & Brown (1987) advocated the importance of pre-retirement attitudes as a predictor of how one experiences the retirement transition. For example, anxiety

associated with maintaining social resources negatively impacts a person's satisfaction appraisal on retirement (van Solinge & Henkens, 2008). Further, van Solinge and Henkens found that retirement satisfaction was related to individual *access* to key resources, like finances, health, and social relationships. Although retirement is widely supported as a heterogeneous experience among people and within people over time, there are common themes that seem to be unchanged: Resource-rich individuals are more likely to adapt positively (Pinquart & Schindler, 2007; Wang et al., 2011). This includes people who *perceive* that they are resource-rich or can access valuable resources in resource-rich systems to become enriched.

Supported by empirical and theoretical evidence, the balance of resources during the retirement transition process will lead to more positive adaptation experiences and overall well-being. Moreover, balancing resources is a dynamic, multi-dimensional, and multi-level phenomenon that happens over time. But, a paucity of evidence exists informing us on the types of strategies, activities, systems, and/or situations that influence resources that help people adapt or adjust. This is in contrast to Baltes & Baltes (1990) advice on meeting the challenges of successful aging through the selection and compensation iteration strategy to overcome life's challenges while aging. Recent work by Wang et al. (2011) offered a framework that described a variety of multi-level antecedents that "could" impact retirees' resources. These include macro level (e.g., societal norms), organizational level (e.g., organizational climate), job level (e.g., job conditions), household level (e.g., marital quality), and individual level (e.g., health behaviors). They call their model the Resource-Based Dynamic Perspective (see Figure

3). Further, Hopkins et al. (2006) posited that perceptions and appraisals of resources are crucial in retirement transition, but still acknowledged more research is needed in this area. Identifying and analyzing a multi-level system seems appropriate to investigate in order to evaluate how people maximize resource recruitment, particularly in retirement.

Hanson and Waprer (1994) and Hornstein and Wapner (1985) explained four types of lifestyle dispositions toward the retirement event: (1) retirement as an opportunity for a new start, (2) retirement as a continuation of pre-retirement lifestyle, (3) retirement as an unwelcome, imposed disruption, and (4) retirement as a transition to old age. Hopkins et al. (2006) used this typology and found that retirees who appraised retirement as a new start or as a disruption aim to increase expenditures in "experiential"

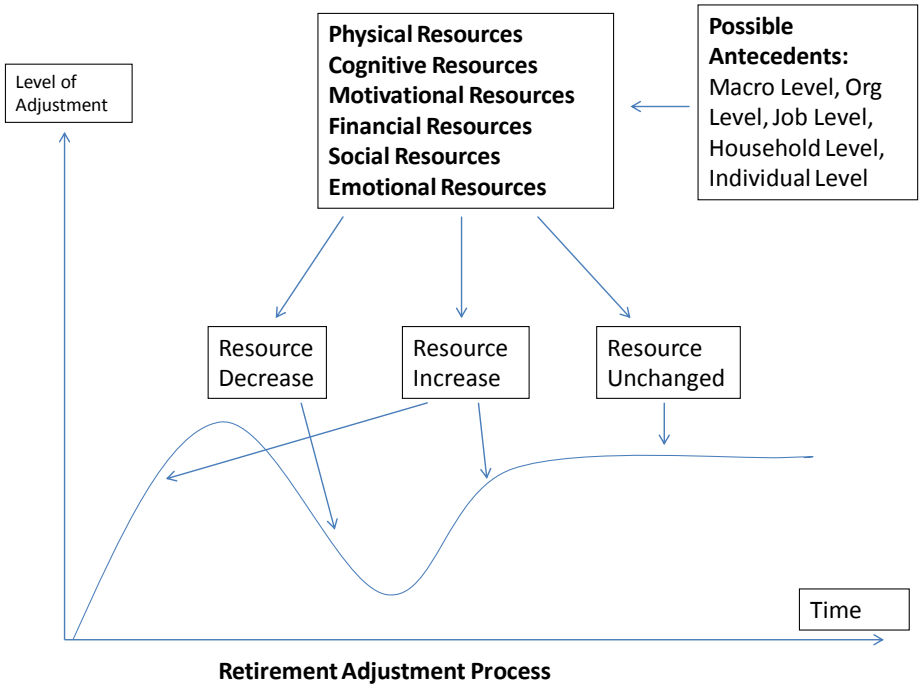


Figure 3: The Resource-Based Dynamic Perspective

and "outward-oriented" product categories. These findings assisted in helping to explain changes in consumption patterns for retirees for the purpose of building more accurate market segment strategies and applying them toward the development of marketing and sales initiatives. Further, Hopkins et al.'s work showed that strategies aimed at people's perceptions catalyze action toward resource recruitment. Therefore, and in alignment with Hobfoll's COR model, the perception of resources are as important as actually having the necessary resources for the occurrence of successful adaptation. According to Brofenbrenner's theory, finding a multi-tiered system where increases in actual resources or the heightened belief of resource recruitment would add significantly to the retirement transition literature. Moreover, effective strategies identifying and involving resource-rich systems able to change people's perceptions and appraisals of their actual resources or access to them may be a key cog in the transition to adaptation process. Understanding this mechanism is valuable, particularly from a human development and aging perspective, if the goal is to increase quality of life as we age. It will contribute by providing practitioner's a useful tool that benefits retired persons.

A study by Leung and Earl (2012) advanced empirical support for measuring the resources espoused by Wang et al. (2011) predicting retirement adjustment and adaptation. They developed a 35-item Retirement Resource Inventory (RRI) that is a self-report measure examining the relationship between resources and retirement well-being. *Retirement well-being* was defined in terms of two separate constructs: retirement adjustment and retirement satisfaction. Findings from this study not only advanced a valid and reliable measurement tool to evaluate retirement well-being, but it provides

strong evidence to support Wang et al.'s (2011) Resource-Based Dynamic Perspective Model. Leung and Earl (2012) used an exploratory factor analysis to decipher the proposed six resource constructs posited by Wang et al. and found that the six constructs collapsed into three main factors. These distinct factors are called: *RT1* (emotional, cognitive, and motivational resources), *RT2* (social resources), and *RT3* (physical and financial resources). More description of the overall inventory will be provided in the instrumentation section method of Study 2. Overall, their inventory and study represented strong evidence that resources predict retirement well-being over and above individual demographic variables. But, a gap in the literature suggests a need to test the strategies, tools, or as Wang et al. would describe them, antecedents that influence the resource composition and explain the relationships between these variables. Research able to identify plausible antecedents for this predictive mechanism would be valuable in understanding appropriate adaptive strategies people could use in order to positively alter resources in a transition. Finally, practitioners could use the results to design a system for maximizing resource attainment.

EXAMINING SPORT AS A DEVELOPMENTAL SYSTEM

Sport-for-development is an emerging research agenda concerned with promoting the opportunities and benefits of participation, also known as development *through* sport (Shilbury, Sotiriadou, & Green, 2008). "Sport-for-development" is a term that is somewhat contested due to both the multiple meanings and multi-dimensional nature of its structural vernacular, sport *and* development. *Sport* has been commonly defined as a

competitive activity that requires physical and mental exertion whereby institutionalized rules of governance are cooperatively adhered to by the participants (Girginov, 2008). This definition of sport is widely accepted with some degree of variation. However, especially in the sport literature, development's definition causes problems (Hylton & Bramham, 2008). Typically, development has been characterized as a socially constructed, highly subjective term, but it is generally synonymous with a process of improvement or maturation (Girginov, 2008). This definition implies positive outcomes or a "higher state of things." Sport-for-development literature typically has been researched with this presumption and often has been a process driven by perceived outcomes that are subjectively derived (Black, 2010; Coalter, 2010). This is contrary to the modern paradigms of human development where development is viewed as an interplay between people and systems, gains and losses. "Net loss" or "net gain" is equally expected throughout developmental trajectories. As Coalter (2010) admonished, there is a shortage of studies that provide adequate evaluation of sport-for-development programs in order to assess their effectiveness. He acknowledged the difficulty of this task due to the subjective nature of the word "development." Thus, exploring the ontology of the word development is useful in order to evaluate a system, like sport, that may impact it and the factors within it.

The term "development" has been contested for generations (Girginov, 2008). The contemporary meaning of "development" came during the major shift from an agrarian to an industrial civilization in both Britain and the United States at the end of the 19th century (Black, 2010). Inglehart (1997) described it as closely synonymous with

progression or improvement. Incidentally, this claim is where many of the normative assumptions concerning sport as a developmental tool derive. On the contrary, Cowen and Shenton (1995) explained it as a label used to ameliorate the inherent chaos espoused to progression. Black (2010) referred to "development" as "creative destruction," emphasizing the dichotomy between progression and regression inherent in the term "development." In other words, developmental processes inevitably contain both costs and benefits that need to be carefully weighed. Development does not equate to pure benefit. Accurately conceptualizing "development" has major implications to sport-for-development programs wishing to create and sustain social change and human wellness in the name of "development." Simply put, "developmental outcomes and subsequent evaluations inevitably bear the imprint of those who articulate it" (Black, 2010, p. 125). "Development" has been socially constructed and subjectively labeled for the benefits of those who wish to pursue progress. In this effort, people in control of developmental processes may make decisions that skew beneficial outcomes toward them, leaving the costs to others in the process. Designing and providing optimal programs, which is the crux of producing relevant outcomes, cannot be achieved if sport managers operate under a biased assumption on the meaning of "development" and do not consider the costs as much as the perceived benefits. Thus, Coalter's analysis for improved theories and empirical evidence to hold sport-for-development programs and its management accountable is significantly appropriate.

Understanding the ontology of the word "development" is critical. In particular, current sport-for-development programming managers may be operating under the false

assumption that their efforts or their starting goal(s) are inherently positive to those who participate--*from their point-of-view.* However, participants in developmental programming are often viewed as "underserved, underrepresented, deviant, or at-risk" populations. Historically, these groups have included African-Americans, women, youth, elderly, minorities, poor, and homeless, just to name a few. Although a critical theoretical lecture addressing this issue is beyond the scope of this dissertation, the point is developmental programming may be biased toward "represented or majority" groups that design, promote, research, and manage these types of programs. Increasingly, this becomes an unidirectional relationship which is antithetical to that of developmental paradigms that stress the multi-dimensional and multi-directional exchanges that include essential intrapersonal, interpersonal, and ecological processes. It is no wonder that the credibility of "sport-for-development" programs is often attacked and criticized for its value to those who they purportedly serve. The meaning of "sport-for-development" should be explained better, enhancing its credibility.. The impetus for this dissertation attempted to illuminate this conundrum beginning at the individual level and discussing its interaction at the multi-level. I define *development* in terms of a human development and aging perspective: A multi-level process that embodies change and a resolution to that change that involves both gains and losses which may produce either a net gain, a net loss, or no net change as time elapses (Aldwin, Park, & Spiro, 2007; Cavanaugh, 1999). This is a more accurate description that captures this dissertation's philosophical stance which underlies the forthcoming interpretations of sport and development.

One popular area of research that tends to receive heightened focus is sport-for-development programs directed at children and adolescents. As explained earlier, the excitement for which sport is administered for youth development is only surpassed by the misguided presumptions that sport is inherently beneficial. Chalip (2006) and Green (2005) admonished that sport is neither good nor bad, but desired outcomes are only a function of sport's provision. Both positive (cf., Eccles, Barber, Stone, & Hunt, 2003; Petitpas, Van Raalte, Cornelius, & Presbrey, 2004) and negative (cf., Kleiber & Roberts, 1981; Chalip & Scott, 2005) empirical evidence of sport programs supported this view. Thus, constructing sport-for-development programs in complement with evaluating and monitoring the outcomes becomes a requirement. Generating a tool for objective developmental measures is a necessity for this to occur. However, methodological issues with longitudinal research designs constrain the production of evidence that support developmental outcomes directly. Siedentop (1994) and Chalip, Thomas, and Voyle (1996) conducted similar examinations where sport and education were integrated into youth programs as an intentional developmental design. Youth were empowered to shoulder increased responsibilities, like coaching, officiating, and administrating, while guided by adult mentors. The main thrust of the programs was designed to yield long-term personal and vocational skills. But, these long-term outcomes were not measured using longitudinal growth curve analyses appropriate for assessing development directly. Thus, determinations on if the design was truly developmental are difficult to defend. Other sport-for-developmental research has similar challenges: seeking developmental outcomes at a specific moment in time when results may take years to manifest.

Measuring direct, long-term developmental outcomes needs a longitudinal model. Eccles and her colleagues have engaged longitudinal research designs with promising results that support sport as having the capacity to engender positive net gains, particularly with youth and adolescents (e.g., Eccles & Barber, 1999). But, very few research agendas engage in this type of methodology to evaluate sport as developmental. Research can still examine sport programs' efficacy on developmental processes (not outcomes), but must be done in a different way. The foundational elements of developmental processes are theoretically apparent and can be researched directly, producing models that can explain and predict future developmental outcomes. If developmental trajectories are shaped by transitions and our subsequent adaptation to these transitions, then investigations on the transitional process embedded in the ecological system is one plausible way to predict developmental outcomes. Chasing long-term developmental claims without the proper long-term methodological design and rigor to ascertain sport as having the capacity to be developmental is fruitless. Examining the "quantum" elements of development, like transitions, resources, and adaptation, is more credible and promising to begin a foundation where future research can build upon.

In sport psychology, transitional studies are fairly common. Pearson and Petitpas (1990) looked at the transitional process in elite athletes for the primary purpose of (negative) transition prevention. They found adaptation to transitions is most difficult for those who had: (1) possessed a strong identity through sport, (2) discrepancies between levels of aspiration and skill, (3) inexperiences with a particular transition, (4) limitations from psychological deficits, (5) social incompetencies, and (6) deficient material and

emotional resources. Sinclair and Orlick (1993), Wylleman, Alfermann, and Levallee (2004), and Stambulova, Stephan, and Japhag (2007) studied how retiring, high performance athletes transition within and in/out of sport. They used a life-span developmental perspective as a framework to understand the impact transitions have on sport athletes and their participation. Debois, Ledon, Argiolas, and Rosnet (2012) also used a life-span development perspective to look at how changes and life-event transitions affect an elite French fencing athlete using a life-history qualitative study. Alas, all these studies have something in common: They study transitions/changes as an independent variable and its effect on *elite* athletes in an *elite* sporting environment (sport construct) using a theory that is mainly psychological in nature. Logically, this makes sense as all of the researchers are trained psychologists applying a psychologically derived model to the sport context. But, they do not account for or explicitly explain the strong social forces and contextual factors that are inextricably linked to sport. In addition, they do not accurately assess how sport exerts force(s) that may change the impact of the transitional process and its potential for multi-level relational exchanges leading to resource gain/loss. Sport and its systems have the capacity to produce physical, psychological, social, emotional, and cognitive benefits, which may mediate the transition to adaptation model. Thus, from these studies, a crucial question arises: Is it the transition or the sport context that produced the end adaptation results? Elite athletes are exposed to an enriched environment of resources that they may not have received if it were not for their participation. Hence, their results may not be the product of the transition, but instead, the resources and strategies that were available or recruited

because of the transition in a particular system--*sport.* Although significant, this work on sport and transitions is currently one sided and the boundary conditions of their resultant theories are limited to an elite sporting environment and the types of transitions experienced within this system.

Recommendations from these types of studies focus on providing strategies that influence transitions without considering sport as a possible influencer or strategy. Sport, in these studies, is only a contextual reference point and dependent variable. In addition, these studies are geared for elite athletes within a *sport* life-trajectory that usually ends (for most elite athletes) by early adulthood, not for mass participants or in an entire life cycle time period. This is contradictory to the mission of sport-for-development programs that are designed for maximizing the benefits of sport participation for all (Palm, 1991; Shilbury, Sotiriadou, & Green, 2008). By studying sport's effect(s) on the resources that influence adaptation oscillations to transitions, we may begin to understand how we can alter the transition to adaptation process that is embedded within developmental trajectories--*using sport as that system*. This vacillation will, presumably, alter the entire shape of the trajectory of a person's life. The underlying assumption is that sport and its system of relations provide valuable resources which participants can access, leading to potential benefits. This approach justifies the assessments of sport's relationship to resources in a cross-sectional design. Longitudinal designs can be instigated to judge the long-term change in resources and how one's long-term developmental trajectory is shaped based on initial cross-sectional results of baseline investigations, such as this dissertation. A longitudinal design model is beyond the scope

of this study, but I advocate that the best way to judge developmental outcomes is through longitudinal analyses. Future research should be constructed to realize this aim. In addition, by studying sport's distinct qualities as a system, theories specific to the sport context may emerge that are idiosyncratic and sport-derived, heeding Chalip's (2006) call for more sport derived theories to strengthen sport management as a discipline. This research seeks to expand the boundary conditions on the current sport and transitional literature.

A major problem extolled in the sport-for-development literature is the absence of evidence elucidating strong sport and development associations, which discredits the claims that sport has the capacity to render positive developmental outcomes (Coalter, 2007, 2010). But a wealth of research in exercise and overall physical activity support beneficial and strong relationship outcomes (Warburton et al., 2006). However, most researchers in sport as well as other related disciplines, like leisure studies (e.g., Kleiber, Hutchinson, & Williams, 2002), stop short in declaring this association for sport, a form of physical activity and exercise. This is strange since the evidence of sport participation benefits is similar to that of physical activity and exercise in certain circumstances, if not exceeding them. This could be due, in part, to the contradictory studies that show sport as also having the potential to produce negative outcomes or purport that beneficial resources, like finances or psycho-social competence, may be needed to actually participate in the first place (e.g., Kleiber & Roberts, 1981; Kleiber et al., 2002; Morris, Sallybanks, Willis, & Makkai, 2003). One reasonable justification for this enigma is

because of weak theoretical frameworks and supporting methodologies, affecting the interpretations of research data.

In adult sport participation, there are promising inferences that may suggest sport participation as an influential system. Langley and Knight (1999) studied sport's role across the life course of one participant and found that sport can be an adaptive strategy mediated by past and continued patterns of social relationships, personal identification, and lifelong physical activity propensity during aging. They also advocated that the investment of time and energy toward an activity is driven by past and continued success. Finally, this study showed that the subject attributed his adult development to the values acquired through lifelong sport involvement. Although rich with qualitative data, this was only one sample and difficult to generalize. Nevertheless, it provided reflective insight on how sport involvement in later life is a cognizant choice to pursue resources or values that this subject believed were the result of sport involvement in a ripe system. A strong association between later life choices and earlier life experiences in sport was apparent.

When examining sport participation on overall health of adult male and female subjects, Lamb, Dench, Brodie, and Roberts (1988) determined that sport participation improved health when sport was more physically demanding and more frequent during the week. Although cross-section evidence supports their conclusions, they encouraged longitudinal corroboration for a possible causal factor. In examining Master's athletes, sport scientists have shown that age-relations physiological decline is not as severe in these athletes compared to non-athletes (Baker et al., 2010). Dionigi's (2002, 2005,

2006) qualitative sport participation research reported that sport functioned as a tool in assisting people over the age of 55 negotiate the psychological demands of the aging process. A recurring theme of Dionigi's work was that older adults used sport *specifically* as an adaptive technique to age successfully due to the perceived and realized benefits that were believed and garnered in the sport setting. However, more empirical evidence and supporting theoretical perspectives are sorely needed before a sport-for-development claim can be tenable. In older adults, the potential for participation in sport to impact the necessary elements that will lead to positive aging is seasoned for testing (Baker et al., 2011).

AIMS OF RESEARCH

After reviewing the literature, several questions were raised: (1) Across the life course, does sport's role change in its purpose according to people's needs and life's demands in the face of transitions? (2) Can sport participation and the sport system provide the necessary resources that people believe they render? Or, is it the very resources we seek that actually determine if we can participate in sport effectively? (3) Does sport participation differ in resource attainment than physical activity or exercise? Do characteristics of the systems differ? (4) Can transitions be affected by a strategy aimed at its mediating resources, and can sport be that effective strategy and system? (5) How can sport be designed to positively effect a person's access to valuable resources? These are just some "big picture" questions that were raised. For the purpose of this dissertation's research and to attempt to illuminate some clarity to these questions, I

investigated two aims: (1) to understand what role sport plays on transitional events across a person's life and (2) to understand sport's relationship with resources during the retirement transitional point. A life-course, developmental paradigm was proposed to guide two studies and to answer these research questions. I used a qualitative study to investigate aim #1 and a quantitative study to examine aim #2. The goal was to illuminate sport's role and efficacy on the necessary resources required and sought after for the life-event transitional process. In addition, the fundamental components of the developmental structure are explained with an empirically based model. The method for each study are in the subsequent sections.

Chapter 3: Multi-Method Design

Overall, the big question that precipitated this dissertation was: *Does sport have the capacity to influence the developmental process of an individual, particularly in late adulthood?* If so, then sport could be used and designed which suits quality of life improvement and assists in the reduction of pressures manifested in elongated life spans. In addition, results may enlighten the most important or influential transitional factors affected by sport. These results could be used to inform sport managers in identifying necessary components of sport for future provision and design formation. However, extant literature does not supply a thorough understanding of sport's capacity to influence transitions. Thus, before we can adequately manage and design optimal sport programming for this purpose, more research is required to provide pragmatic information.

To answer this broad inquiry, an integrated multi-method approach was formulated, including two studies: quantitative and qualitative. A multi-method approach is supported to recognize both breadth and depth, general and specific, of a particular phenomenon (McKendrick, 1999). Further, Greene, Caracelli, and Graham (1989) proposed several reasons in which to utilize multiple methods for optimal results in which two recommendations fit with this dissertation. One was to use multiple methods for *complementary* purposes, which seeks to increase interpretability and meaningfulness via elaboration and clarification of the results from one method to the next (Greene et al., 1989). Secondly, *initiation* is the motivation for which seeking new perspectives on

theoretical frameworks, increasing the breadth and depth of inquiry results and interpretations from different viewpoints (Greene et al., 1989).

Study 1 promoted a wide, expansive exploration directed at learning how sport is perceived and utilized on transitions across a person's life. Sport's role in the transition to adaptation process was ascertained and examined to understand similarities and differences within and across people. A qualitative, topical biographical life-history study to discover these relationships was conducted. Study 2 provided a more narrow viewpoint on a specific transition normatively experienced by people in late adulthood: retirement from the workforce. A quantitative study was used in order to analyze sport and resources, their relationships, and the magnitudes of those relationships within a transition to adaptation theoretical framework. The combination of broad and narrow perspectives was considered to advance strong empirical evidence and interpretations with high credibility, utility, and completeness (Bryman, 2006) that could provide a foundation in which future research questions could originate. Thus, expanding the sport development and transitional literature that currently ignores sport's influence on the transition process may be realized.

STUDY 1 METHODOLOGICAL BACKGROUND

For Study 1, the research question was: *What is the role sport plays in life-event transitions across a person's life?* This was to understand people's perceptions of sport and the meaning they attached to its role in relation to transitional events. When conducting research, data that is captured simply characterizes while theory provides an

explanation to those characteristics (Whetton, 1989). Thus, the theoretical framework of this study postulated by Schlossberg's Model of Transitions (1981) was deployed along with an interpretivism theoretical perspective as guided by the constructionism epistemology. A theoretical perspective helped to provide the logical underpinnings and boundary assumptions to the selected method. Due to the nature of examining sport participation from a broad, retrospective point-of-view, the researcher and the interviewee were partners in constructing the meaning of the knowledge produced and its subsequent interpretation. In the next chapter, the protocol of the research project is described which fits the theoretical perspective and philosophical stance of this study.

Relatively little is known that can offer a proper explanation for the relationship of sport participation on transitional life-events across the life course. Sport is heavily influenced by its actors and their interactions with the social world. This study sought to illuminate a better understanding of these dynamics by studying people's past sporting experiences across the life course and the meanings they place on the role sport participation played on their life and transitional events. According to Green and Thorogood (2004), qualitative research is a suitable approach to investigate the perspectives of participants and the meanings they attach to a phenomenon, such as sport participation and life-event transitions. Due to the complexity and uncertainty of the these interactions, a qualitative method is most appropriate as an exploratory technique in order to allow for data to emerge while interpretations can be flexible, accounting for this uncertainty (Frankel & Devers, 2000). Using qualitative research for study one helped elucidate unique information about the sport participation and life-event transition

phenomenon, providing valuable information to support the theoretical position that sport may be influential in affecting resources in the transition to adaptation process. In addition, this study's results serve as an additional support mechanism for the second study which used quantitative measures.

STUDY 2 METHODOLOGICAL BACKGROUND

The goal for Study 2 was to illuminate sport's efficacy on the necessary resources required and sought after in the retirement transitional event. The second study's research question was: *What is sport's efficacy concerning the effects on retirement resources necessary for retirement well-being?* A major problem in sport-for-development literature is ascertaining and evaluating sport's value as a developmental tool at the individual level. Further, sport has usually been considered as a dependent variable in its relationship with transitions. However, future research and a theoretical base is needed to understand how we may be able to manipulate sport and its components in order to affect development, or its fundamental elements embedded in the developmental process. Scholars continue to implore ways to in which sport can be designed and managed properly in order to induce its benefits (Chalip, 2006; Green, 2005, 2008). Thus, treating sport as an independent variable to examine its efficacy on resources in this process at a specific transitional point is the main reason behind selecting a quantitative design. This study used a structural equation model (SEM) technique that explains sport's relationship with resources needed for retirement adjustment and adaptation. A structural equation technique is beneficial when analyzing the relationships between observed and/or latent

variables and ascertaining the strengths of those relationships (Kline, 2011). Moreover, hypothetical structural equation models derived from literature and theory can be analyzed with respect to data collected. This assists with the determination if evidence supports theoretical understandings of reality (Kline, 2011). A more post-positivist approach is presented in Study 2 that complements the aforementioned constructionist epistemology of Study 1. Further, SEM can test dueling hypotheses that may be a source of debate in disciplines. For sport management, one source of dialectical discourse centers on the idea that resources and sport may have a bi-directional relationship. Meaning, valuable resources (i.e., psycho-social competence, physical skill, financial wherewithal) may be needed to participate in sport and is argued alongside the notion that sport provides important benefits in the form of some of these very same resources. SEM's strength allows testing of dueling hypotheses from the data collected. Both of these hypotheses in the form of structural models will be presented in Study 2.

Chapter 4: Study 1 (Qualitative)

METHOD

The goal of this method was to understand the role of sport participation in transitions occurring across the life course using a qualitative, life-history thematic analysis (Hagemaster, 1992). A life-history methodology was conducive to this goal as participants described their past events from their earliest memory until the current time. In addition, a life-history methodology allowed for prior theory to help guide the data analysis (Hagemaster, 1992). Further, due to the specific topics of sport participation and life-event transitions told by the informants, a slight modification to the typical, multiple in-depth interviews constituting a life-history method was needed. The typical life-history approach explained by Hagemaster (1992) was followed but slightly modified using a topical biographical approach (Matthews, 1983). A topical biographical method is similar to that of a life-history, but focuses the data collection on a specific topic area and is not interested in explaining nor verifying other information "off topic" provided by the informant (Matthews, 1983). Thus, a topical biographical method typically does not need several interviews with the same informant as a normally conducted life-history. This is the only difference from how Hagemaster described the life-history procedure. So, from this point forward, *life-history* will be used as the term to describe the method's protocol described in a step-by-step procedure recommended by Hagemaster.

Participants and Recruitment

Interviews were conducted with both males and females between 50-80 years old that have previously played sports. All participants were required to speak English. Various backgrounds that included ethnic and socio-economic class diversity were recruited and preferred in order to make progress toward any generalizations. Theoretical saturation was expected to be reached as the sport context may be limited in the number of ways participants tell their life-history experiences vis-a-vis their life-event transitions. The interviews took place on campus at a major university in the Southwest.

Recruitment of informants was conducted using purposive sampling. Recruitment utilizing a university's website and communication outlet was used. This outlet is an online webpage that lists and advertises certain events and it is commonly used by research teams for participant sampling. All current student, staff, faculty as well as alumni of the university are able to sign up for direct emails that update new events. This study was listed as a recurring, daily event and each subscriber had the ability to view this study according to an email schedule. The listing provided the purpose of the study, inclusion criteria, how to contact the researcher, and potential benefits as a result of the study. This outlet was believed to provide a large amount of people that fit the 50-80 criteria who have previously participated in sport.

Procedures

Once participants responded by email indicating their interest in the study, a more detailed description of the study's requirements was provided: (1) must have participated

in at least one sport in their life, (2) must be available for 1-3 hours for a face-to-face interview, and (3) must fill out the required demographic, consent, and life-event/sport participation chart. A small gift of $10 was provided as an incentive to participate.

For this study, participants were required to have prior experience playing sports. Due to the methods and the research question, a participant cannot possibly answer the question accurately without having first experienced the sporting activity in question. Next, all the required forms for completion via email were sent while setting a mutually convenient time for the interview. Participants who passed the initial screening phase were asked to complete a pre-interview demographic questionnaire along with a life-course transition and sport participation chart (See Appendix A; cf., Harrison, Angel, & Mann, 2008). These charts formed the basis of a semi-structured interview that elicited the interviewee's sport participation account following a chronological, life-course trajectory. The chart also helped prepare memory recall in the participant, which helped produce increased reliability with data collection.

Interviews

Five specific questions were asked to the participant: (1) *Tell me about your sport participation during your life, starting with your earliest memory until now?*, (2) *Tell me about your life-event transitions during your life, starting with your earliest memory until now?*, (3) *Tell me about the role sport participation played on your life-event transitions, starting with your earliest memory until now?*, (4) *Tell me more about your life-transitions that were specifically sport related?*, and (5) *Explain how sport assisted with*

any of your life transitions, positively, negatively, or neutral? It was important to ask about sport participation first to decipher the meaning the participant placed on it in order to get an understanding of its role. Then, once the participant finished speaking about question #1, the second question focused on the role the participant placed on their life-event transitions. The third question asked directly the relationship of sport participation's role on the transitions. By asking question #3 solely, then the meaning of sport and a person's life-event transitions may have been lost or unclear, thus affecting the interpretation of the actual relationship between the two constructs. Probes throughout the interview were prepared to inquire about life transitions during their sport participation chronicle (Hagemaster, 1992). Examples of probes were the following: (1) *Tell me more about this particular experience*, (2) *Tell me more about how sport interacted with this particular transition,* (3) *Can you clarify what this [specific event, feeling, or activity] meant to you?* (4) *Tell me more how sport affected you, personally, during a transitional event*. The interviews were digitally, audio recorded and transcribed verbatim for data (thematic) analysis (Hagemaster, 1992).

In addition, the researcher scribed field notes that described the participant's affect and the interview's contextual details (Hagemaster, 1992). These field notes helped attach additional meaning to the data that may not be present in the transcription. Hand written field notes and memos of the participants body language, emotions, facial expressions, and other points of reference that may be enlightening to the research question and/or the data analysis procedure were compiled. Once the interview was completed, the gift was provided.

Data Management and Ethical Conduct

Once the data was recorded, digital audio files were loaded onto an encrypted, password protected computer. This file was transferred to an encrypted website where a professional company (Pioneer Transcription Services) provided transcription services. The transcription was posted on a secure server to be downloaded and saved on the researcher's computer. The transcription was printed and assigned a code that matched the interviewee's coded identification number. This identification was stored in the computer that matched the particular code. All other materials collected that became obsolete (e.g., audio recording) containing information exposing the identity of the participant was destroyed. Field notes were coded and kept in a locked file with the transcription hard copy. Further, ethical conduct during the interview was a top priority. The life-history, topical biographical method lends itself to recounting past memories that can elicit both positive and negative emotions. Therefore, patience with any emotions shared during the interview while staying neutral in both verbal and body language responses was tactfully done. Lastly, cognizance of eliminating any distractions or interruptions while the participant spoke in long durations during accounts of life experiences was followed through.

Data Analysis

A deductive-inductive iterative approach was used to uncover the "role" sport participation played, given by the interviewee before emergent categories were deciphered according to the major constructs of Schlossberg's (1981) model. Data

analysis entailed line-by-line coding of participants' transcribed interview, then categorized (with codes) the first-line using Schlossberg's (1981) four constructs that lead to adaptation. These categories were labeled as: (1) the perception of the particular transition, (2) the transition, (3) the individual characteristics, and (4) the characteristics of the pre- and post-transition environments-(a) interpersonal support, (b) institutional support, and (c) physical setting (Hagemaster, 1992). Additional emergent categories from the initial, theory-derived categories were identified inductively. Then, similar categories were grouped to identify emergent themes and subthemes that ran through the data (Hagemaster, 1992). Finally, Schlossberg's (1981) model and constructs was used to assist in interpreting the evolving themes (Hagemaster, 1992).

According to Hagemaster (1992), six assumptions to validity are accepted as part of the life-history method that was adopted in the modified method:

> (1) No one is lying, (2) the word of the individual is accepted, (3) everything makes sense to the subject, (4) subjects' decisions are rational, (5) everything is relevant to the study, and (6) there is no such thing as absolute truth. (p.1126)

In addition, Hagemaster (1992) argued that content validity is highly probable using the life-history method. The pre-interview chart that aided the participant's memory recall added to the reliability of the study since the participants were able to review past events before speaking about it in the interview. Lastly, the nature of a person's past sporting experience and similar life-event transitions did not lend itself to unique human experiences as millions of people play sports in their life as well as experience life-event transitions. Thus, the representativeness of the study was high, contributing to increased auditability. Auditability, or peer examinations, was established through explaining the

data analysis and collection protocol with a trained qualitative experts (Krefting, 1991). The experts were able to understand and follow the researcher's thinking, particularly in coding and categorizing during the data analysis stage (Krefting, 1991).

A priori Assumptions

This section is an attempt to provide my own self-disclosure of what I believed to result from this study in the form of findings and limitations. As described by Creswell and Miller (2000), "researchers who self-disclose their assumptions, beliefs, and biases early in the research process allow readers to understand their positions and bracket those biases as the study unfolds." (p. 127) This procedure helps increase the validity of qualitative research (Creswell & Miller, 2000). The results from study #1 were expected to contain rich, in-depth data about the role sport plays on life-event transitions across the life course. In addition, categories of data guided by Schlossberg's model were selected to help aid in data analysis and toward the development of themes relevant to the transition to adaptation process. Furthermore, I expected various interpretations of the meaning placed on "sport's role" by informants that changed throughout their lives. However, by following the technical procedural steps of Hagemaster and becoming immersed in the data during the analysis phase, emergent themes that are common threads that connect this expected heterogeneity were produced. Thus, a better understanding of the utility of sport for people in the transitional process was generated. I expected both males and females to participate, possibly adding to the heterogeneity of the data. Finally, a discernible theory on sport's role on life-event transitions across the

life course was expected to be illuminated and postulated, possibly guiding and supporting Study 2.

Limits of generalizability were expected to be apparent as "Know Events" accessed people with high educational backgrounds and mid-to-high socioeconomic status. Attempts were made to reach saturation from a diverse population. Other limitations included the researcher's own position of sport's role generated by the in-depth theoretical review for both study #1 and #2. This statement (and purpose of this section) served to state my potential bias and attempts were made to limit this bias using audit techniques. Another limitation expected was that participants interested in speaking about sport's role may have had positive past experiences. This could skew sport's role as a positive device. However, I searched for disconfirming evidence, negative cases, and ascertained anti-themes after establishing the preliminary themes to overcome this possibility (Creswell & Miller, 2000). This is in alignment with the constructivist approach that I took and the search for disconfirming evidence provided support of the account's credibility, according to this epistemology, because reality is multiple and complex (Creswell & Miller, 2000).

RESULTS

The data analysis process consisted of a deductive-inductive iterative approach beginning with reading the completed transcripts twice. Then, codes were developed line-by-line of each printed transcript preparing for the categorization process according to Schlossberg's model. This model consisted of, not only the transitions that were both

sport and non-sport related, but factors that mediated the transition to adaptation process. These factors served as the basis for the initial categories which were: (1) *perception of the transition*, (2) *individual characteristics*, and (3) *pre- and post-environment*. In each of these, several sub-categories were delineated by Schlossberg that served as the foundation for these constructs and thus, were specifically used in the categorization process to enhance the detail and specificity of the category to the data. Each sub-category will be discussed in the forthcoming sections.

During this process, the selection of the initial (or 1st-order) categories and the decision to place data in these categories was a deductive process guided by Schlossberg's transitional model. After the completion of this stage, an inductive approach was initiated to develop higher order or 2nd-order categories within the 1st-order categories. This was done, in part, to allow the data to drive the emergence of categories and then themes across the data, allowing Schlossberg's model to guide, rather than dictate, the data. It was also an attempt to avoid forcing data into preconceived categories that may or may not fit the data well, helping to improve the validity and trustworthiness of the analytical process (Hagemaster, 1992). Finally, the role sport played on each second order category was reported. This helps to tie both the transitional process and the role sport plays on this process together, which is in alignment with the study's specific research question. Although it is necessary to understand the transitional process in this context, it is not the main unit of analysis that will answer the research question: it is understanding sport's role *on* the transition process. During the analytic progression, the higher order categories and sport's role were constantly intertwined and

emerged as an iterative and interdependent procedure. During this time, extant literature was consulted to check for the validity and consistency of the emerging categories. Of course, Schlossberg's model was referenced along with additional published research on the transition to adaptation process as well as sport's role and value (cf., Baltes, 1987; Bronfenbrenner, 1977; Dionigi, 2002, 2005, 2006; Chalip; 2006; Green, 2005; Hobfoll, 1989, 2002; Kahn, 1975;Stewart, Sokol, Healy, and Chester, 1986).

Next, themes that ran through the data within the categories were selected to describe the emergent patterns. Themes of the transitional process and sport's role were formed and articulated. Each theme (as well as category) has been described, defined, and supported via quotes from the participants. Finally, a discussion of the interpretation in alignment with the research question will be presented along with the limitations and implications of the findings in the forthcoming chapters.

To ensure validity and credibility of the results, three tactics were used as suggested by Creswell and Miller (2000): (1) *member audits*, (2) *searching for disconfirming evidence*, and (3) *reporting the results using thick, rich description.* First, the data analysis was accompanied by two rounds of member audits as well as three rounds of repeating the analytic process. Member audits were conducted with experienced qualitative researchers in which the analytic process was articulated, step-by-step, in order for the experts to understand, follow, and critique the procedures (Creswell & Miller, 2000). Categories were explained, theory was discussed and suggested, and potential interpretations were considered during a dialectical exchange. Secondly, three rounds of repeating the categorization and theme process was done to verify the

consistency of the categories and themes within the data but also to allow for questioning and searching for evidence that does not fit original analytical decisions. This is what Creswell and Miller describe as disconfirming evidence and is appropriate for this study's constructivist approach (Creswell & Miller, 2000). Lastly, the results section provides rich, thick description utilizing fieldnotes and long quotes to include the context of the participants' account (Creswell & Miller, 2000). In addition, categories and themes were supported with several of these quotes to provide as much detail as possible that support the chosen categories and themes.

Participants

Demographics

A total of fifteen participants volunteered for the study and completed a demographic questionnaire. Table 1 describes each of the participants' demographic information and is included with pseudonyms replacing names. Thirteen participants were interviewed in a small, private office on campus of a large university in the southwest. Two participants were interviewed in their own place of business, also in a secluded, private office/lounge area. Participants were provided beverages upon request to help them feel comfortable in the interview environment. Each interview was audio recorded and fieldnotes were transcribed that illustrated the participants body language, emotional responses, and overall demeanor. Fieldnotes also helped to describe the natural, physical environment of the setting. Pseudonyms were ascribed to any friends, partners, spouses, colleagues, and places throughout the description of the results to assist

with the confidentiality of the participants' interview.

To summarize, the majority of the participants are between the ages of 50-65, married or divorced, parents of at least 2 children, highly affluent, Caucasian, and well educated. Nine of the total fifteen participants were female. Interviews averaged about fifty to sixty minutes per person, with a high of two hours, thirty minutes to a low of thirty minutes.

Life-event Transitions and Sport Participation Chart

In addition to the demographic questionnaire, a life-event transitions and sport participation trajectory chart was requested from the participants. This helped participants recall past memories concerning their life and assisted with the preparation of the interview. Participants were asked to complete this prior to the interview and bring with them at the commencement of the interview. Often, participants referred to their chart during the interview to help with recalling detail of their particular description of the phenomenon. The chart asked participants to list and rate, on a 0-100 scale, the importance they placed on certain transitions and sporting activities across their life. 100 was considered the highest of importance during that particular 5-year time period. After the completion of data collection, the ratings were averaged across all participants for each 5-year increment per topic area. The results of this process are included in Figure 4 that explains the overall, averaged importance placed on each phenomenon. Both the

Table 1: Participants' Demographic Information

Pseudonym	Age	Gender	Status	Children	Education	Ethnicity	Income
Lonnie	56-60	M	Married	2	M.D.	White	$150K+
Gene	56-60	M	Married	2	4-year degree	White	$150K+
Brian	50-55	M	Married	1	Master's	White	$120-$150K
Pam	61-65	F	Married	0	Master's	White	$90-$120K
Amy	61-65	F	Married	2	4-year degree	White	$31-60K
Mary	56-60	F	Married	1	Some college	White	$90-120K
Beth	50-55	F	Divorced	2	4-year degree	White	$150K+
Dave	76-80	M	Married	3	Master's	White	$90-120K
Kristen	56-60	F	Partnered	0	Doctoral	White	$120-150K
Carla	61-65	F	Divorced	2	2-year degree	White	$31-60K
Bob	50-55	M	Married	5	Some college	White	$90-120K
Alicia	50-55	F	Widowed	2	Doctoral	Hispanic	$90-120K
Jenn	56-60	F	Divorced	2	Some college	White	$60-90K
Whitney	56-60	F	Married	1	4-year degree	Hispanic	$120-150K
Derek	60-65	M	Married	2	4-year degree	White	$120-150K

life-event transitions and sport participation trajectories are included in one figure to compare and contrast importance levels. Fourteen participants completed the chart with one person declining this aspect of the study. According to Figure 4, the participants in this study rated sport participation higher in importance from ages 0-5 to approximately 15-20, then returning at ages 45-50.

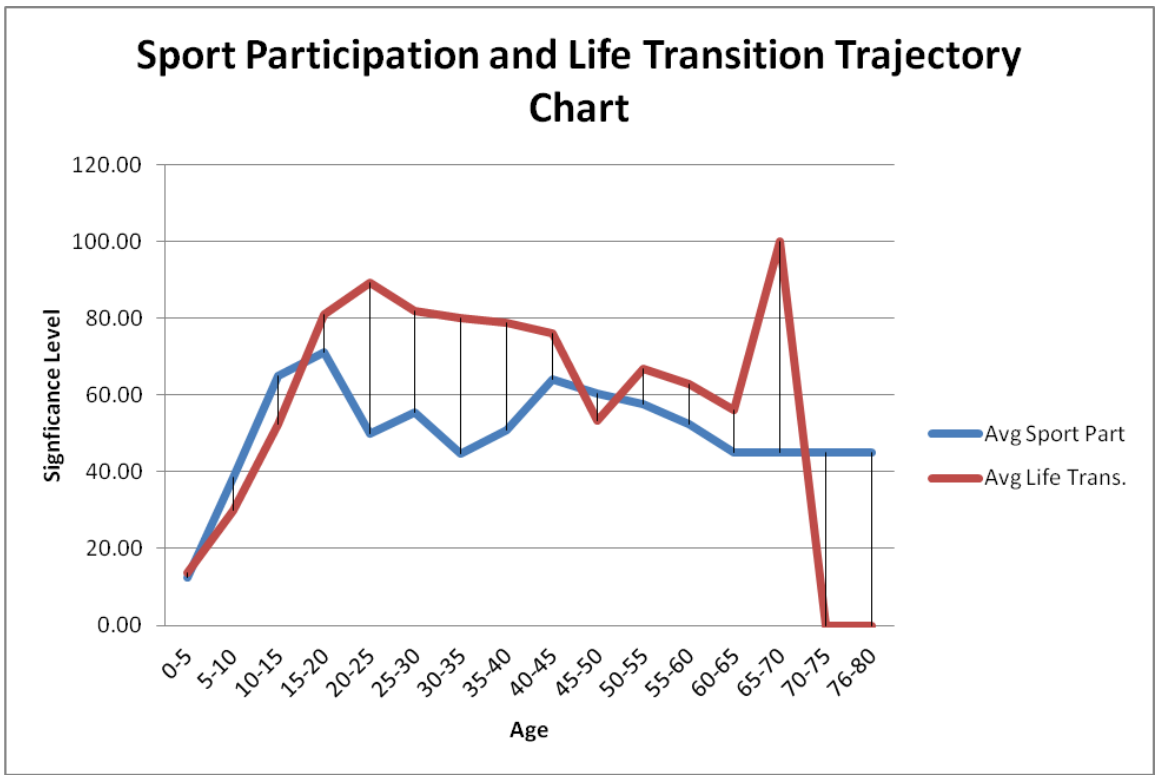


Figure 4: Sport Participation and Life Transition Trajectory Chart

In contrast, the average importance of life transitions seemed to diverge and grow higher starting at 20-25 until 40-45, then again at 50-55 through 65-70. Importantly, only one participant was over the age of 65 in this research. Interestingly, the importance seemed to mirror each other during the times where they diverged (20-45), where sport participation decreased, life-event transitions increased. This is in contrast to their youth and adolescent stages (0-20) where both trajectories increased at the same pace. While this figure is used for descriptive purposes, the interpretation is relevant in the overall discussion of the findings to the research question. This interpretation is included in the discussion section along with the relevant themes generated in the analysis.

Sport and Transition Description

In preparation for the interviews, participants were provided with a definition of sport participation and life-event transitions along with some examples of each. This was designed to help them understand what they would be talking about when asked to provide their life-course narrative on the topics. Initially, sport participation was defined as the following when the interview questions were provided to the participants in advance:

Playing either organized or unorganized team or individual sports. Organized sports is when you may have played in a league or on your school team. Unorganized might be described as "pick-up" sports or playing sport with friends in the neighborhood. Team sport examples may include baseball, soccer, football, hockey, or kickball. Individual sport examples may include tennis, badminton, or golf.

As for life-event transitions, they were defined and described as:

A major turning point in your life that may include, but not limited to getting married, attending a different school, loss of job, change in a coach, playing a sport for the first time or leaving a sport, retirement from any activity, change in friendships or relationships, or a loss of a loved one.

During the interview, however, the definition of both of these were allowed to be defined according to how the participant interpreted them. Correcting participants was considered to be inappropriate for the validity of the data. Interview questions were intended to be open-ended and interruptions eliminated or minimized so data would be as pure and distanced from bias as much as possible. Thus, if sport participation was

defined as an exercise or physical activity, then it was accepted as such because the participant *believed it to be so.*

The types of sport participation illustrated were wide-ranging and heterogeneous across people and gender. Sports included individual and team sports, and participants normatively used sport and physical activity interchangeably throughout their descriptions. This delineation of sport included football, baseball, softball, ice hockey, tennis, volleyball, rock climbing, running, walking, yoga, cycling, soccer, pickleball, and swimming. Sport participation was heavily influenced by family members at a young age, particularly male influencers like fathers, husbands, and/or brothers. Furthermore, physical location seemed to play an enormous role on which sport was selected, particularly at the youth stage. Duration and frequency of sport was at its highest levels during youth and adolescent (0-20), then rapidly declined between the ages of 20-40, then started to increase at a moderate pace after 40. The interaction between transitions and sport participation was prevalent particularly as the level of importance of transitions exceeded the level of importance placed on sport participation.

In contrast, life-event transitions appeared to be more homogenous across people in this sample as compared with sport participation. Types of transitions, as described by Stewart et al. (1986), falls into the category of either "role transitions" or "stressors." Role transitions are normatively experienced as adjustments in self-image, beliefs, values, and behaviors where people are viewed as experiencing uncertainty of what is expected (Stewart et al., 1986). This experience involves some absence of fit between the inner self and the role as externally defined by others (Stewart et al., 1986). Some

examples in this study that were homogeneous were getting married, getting divorced, having children, moving, changing jobs, and the death of a loved one. "Stressors" are considered changes that produce demands on an organism (i.e., individual) for adaptation (Stewart et al., 1986). Major life changes are defined by Stewart et al. as demands that are larger and broader than those made by smaller ones and last for an expected longer duration. Examples (cf., Stewart et al., 1986) of this in the participants included: children beginning school, attending college, marriage and parenthood, retirement, and divorce. "Stressors" and "role transitions" made up the majority of transitions and they were broadly experienced by most, if not all, of the participants. One other type of transitions, according to Stewart et al., includes life crises, which are considered radical life changes that are acute, short-term, and intense. Examples of these include natural disasters and bereavement that demand an immediate and global response from the individual (Stewart et al., 1986). Although occasionally present, these types of transitions made up a very small portion of the life-events described over the life-course where some participants did not experience any of these as of the date of the interview.

Data Analysis

Categories

According to Schlossberg's (1981) model, three major factors influence the adaptation of an individual to a transitional event: (1) *perception of the transition*, (2) *individual characteristics*, and (3) *pre- and post-transition environment*. Under each factor there are several variables that are used to describe these factors in more specific

detail Each of these variables is used as the initial, first-order categories in the analysis process. Morse (2008) explained that a "category is a collection of similar data sorted into the same place....and if broad in scope, can be divided into smaller categories and its parts identified and described." (p. 727) This approach was applied to the sorting of codes into categories during this analytical process. Table 2 is listed containing all of the first and higher order categories.

Perception of the transition. First, the perception of the transition included the following variables and first-order categorizations: (a) *role change*, (b) *affect*, (c) *source*, (d) *timing*, (e) *onset*, (f) *duration*, and (g) *degree of stress*. Each section defined these first-order categories, according to Schlossberg, and supported with quotes. Additionally, the higher order categories that inductively emerged from each of these sections was defined and supported..

Role change was defined by Schlossberg, using Lowenthal et al.'s (1975) description, as involving gain or loss when a person's role is altered by a certain event (e.g., getting married, becoming a parent, taking a job, getting divorced, retiring, being widowed). Some degree of stress is always present regardless of if a gain or a loss is experienced during a role change. Some excerpts from the interviews that were placed under this category were:

From Dave's description of his job as an electrical engineer exemplifying gain in job interest from a role change:

> I was happy with what I was doing because I knew it was, it was very, it was a very fulfilling career I had. It was doing things that were important to the country. We were, I was, played a major role in helping the US understand what the

> [Eastern European Country] was doing with their submarine and anti-submarine warfare programs. And that led me into all kinds of interesting, challenging situations.

Below was an example from Kristen's experience with a change in job roles resulting in gain in enjoyment:

> When I became the [job title] at [University], that opened up this whole new, you know, I mean it really changed my job. I mean, it really changed my job. I mean, I still was, you know, faculty member. In fact, by that time I was department chair at [University] kinesiology department. But being [job title] just gave me so much more enjoyment to my job. You know? I really looked forward to all the [job title] related activities.

Here was an example from Bob's experience with getting married and resulting in a loss in activity:

> ...and then when I got married, I, physical activity dropped way, way off. It just, you know, there's the whole thing about, putting away childish things. And when I was married, I thought the right thing to do was to put all those hobbies aside.

Table 2: List of Categories

Factor	**1st order category**	**2nd order category**
Perception of Transition		
	Role Change	Role Uncertainty
		Playing an Important Role
	Affect	Feeling Unsatisfied
		Loss of Control of Oneself
	Source	Actionable Responses Initiate Self-resolutions
		Multiplicity of Transitions
	Timing	Different Perceptions for Different Times
		Escaping from the Chaos
	Onset	Practice Makes Perfect
	Duration	Breaking the Cycle
	Degree of Stress	Stress as a Signal
Individual Characteristics		
	Psycho-Social Competence	Learning the Ropes
		Fitting In
		Finding Own Self
	Sex/Age/Race/SES	Finding Expected Role Performance
	State of Health	Health as a Feedback Trigger
		The Motivation Paradox
	Value Orientation	Sport as a Remedy
	Previous Transition Experience	Learning Facilitator
Pre-/Post-Transition Environment		
	Internal Support	Comfort in Compatibility
		Distress in Deviation
	Institutional Support & Physical Setting	Controller of Resources and Support Mechanisms

Gene talked about role change and experiencing a loss in activity and psychological stability when his dad passed away and when he had kids at 40:

> The kids were born when I was 40. So, from 35 to 40, business was going good. I was kind of grooving through everything. I was still pretty active with my guys, playing a lot of squash, basketball, the wife and I golfed. We were doing stuff all the time. And then once the kids hit, our life changed a bunch, immediately. So the thing with the leadership roles at work, I forgot right here my dad passed when the kids were two. Um, that was semi-traumatic but my, I needed to pay more attention to my mom. At that time she lived near us. So, I'd say those were the biggest things, take care of my mom, having the kids, moving to the suburbs, that whole timeframe. And then, you know, once they were five we were in a pretty good pattern again.

These excerpts showed that certain events precipitate a corresponding alteration of a person's role that may add a surplus or create a deficit in certain elements in one's life (i.e., social relations, psychological feelings, physical activity). Although a role change could produce a gain or a loss from a transition, in this particular study, transitions were typically associated with a loss/deficit of some kind, particularly socially, physically, and psychologically.

Second-order categories that emerged under *role change* were as follows: (1) *role uncertainty*, and (2) *playing an important role*. *Role uncertainty* is described as when the participant explained that they did not know what will happen in the future to oneself and their relationships with others, producing anxiety. Further, Pooler (2011) described *role uncertainty* in Role Identity Theory to mean when a person's perception of their self is in doubt due to the interaction between them and those in their immediate social environment.

An example of *role uncertainty* is from Derek when he had to leave a major university:

> And when I was a freshman, got into trouble and ended up having to leave [University] and I really, I didn't know what I was going to do.... But it was a big moment in my life from the point of, all of a sudden, what I had was just taken away from me. And it wasn't taken away like when a guy has an injury. It was taken away on some foolish things that an 18 year old kid did.

In another example, a sport injury caused a transition and *role uncertainty* in Brian:

> They carried me off the field. It wasn't that—it wasn't a broken leg; it was torn cartilage. But it was shattered. And it was significant enough that, yeah, time for surgery. So that kind of takes you down to my life events, as I had my knee operation. At that point, uh, I didn't know where I was going to go; you know, what I was going to do.

And in a severe case of role loss causing uncertainty and anxiety, Lonnie expressed being distraught at losing his girlfriend, obtaining a sport injury, and his falling class status as a medical student:

> Well, I—not only did I bottom out and I couldn't study....I basically had a major depression, part of which can be psychomotor retardation, for which there was—the psychiatrist I was seeing was also somewhat behind the times...Anyway, I had severe anxiety and depression; depression over the breakup, anxiety because I couldn't retain the information, and I was—my class rank was falling like a stone. It was terrible. I contemplated suicide, only as a thought. I had no plan.

Interestingly, this is what Lonnie had to say about losing his ability to play sports during this same time attributed to the sport injury:

> It was just like, anything is better than this. This is terrible. I couldn't study. It's cold, and it's dark. I can't play sports. And, I couldn't play sports because I couldn't cut. If I cut, your knee goes out, you go down, and you tear it up some more. It was bad. That was the low point in my life, easily.

Next, *playing an important role* emerged under *role change* as a higher category that encapsulates sport's function on *role change*. This is defined as when a person feels a sense of satisfaction with the prominence of their role and attempts to seek this type of role out with others, often using sport participation in this study. The perception of the importance of a role produced this type of satisfaction with oneself at the behest of others' reinforcing feedback, particularly in the sport's context. For this category, it was particularly prominent when playing sport. An example of this is recounted by Dave when he is asked why he plays sport:

> In my world, people looked up to athletes. I mean, you were.....the big man on campus. And that meant something, I'm sure. But I just enjoyed being with [the] guys. As a matter of fact, I had my high school reunion... and we relived a lot of the old moments with teammates. It was fun to, "Remember so and so. Remember?" "Yeah. Right." So the camaraderie...with your teammates, was fun.

Further, Mary explains that sport helped to fill a void in her life to be a part of something larger than herself:

> I didn't have, I didn't have that kind of core feeling of being a part of something. That was always part of sports for me, be it volleyball, basketball, softball, anything. It's being a part of a greater home. It's a commitment....you don't just not show up. Again, that wasn't organized by any means, but it was going and playing and being a part of a whole.....I don't know how to explain it, except that, when I found volleyball, I found people to play with again. It just steps my life back up a notch. And starting to play again and actually becoming part as involved as I had ever been in my life.

Affect was a first-order category defined by Schlossberg as when a transition generates feelings of pleasure or pain or elements of both, also involving some degree of stress either positive or negative. Examples of transitions producing *affect* were from

Bob speaking about a tough period in his life where life transitions and sport transitions interacted:

> Then the life transitions and the sports transitions here become very closely tied because I was not feeling good....And I started thinking about just kind of my life as a whole at that point, and realized that I wasn't enjoying myself.

And, Alicia explained a multitude of transitions in a relatively short time period of her life:

> I guess the three main things that have happened since 2000 is my sister passed away in 2005. My dad passed away in 2007. And my husband passed away in 2009. So it was kind of like, six years of not good, not good. I mean there was just like a lot of emotional kind of trauma in some ways, and pretty close to one another.

Most of the transitions caused negative affect in the participants, just like the above examples. This negative affect produced increases in anxiety and feelings of dissatisfaction with oneself. This description is the basis for the higher order category in this variable--*feeling unsatisfied* and *loss of control of oneself*. During times of feeling despair, a person's sense of control with their surrounding was threatened and destabilized. Thus, this caused people to seek it out, where many of the participants chose (or found) sport as that outlet to regain a loss of control through being satisfied with oneself. Hence, sport participation played an important role in the re-stabilization process.

Below is an excerpt that exemplifies this situation from Whitney when she competed at martial arts:

> ...if you don't like to be in the public eye, you just don't like it, and so—but I did compete, and I competed for both in forms and fighting. And I'm going to say again, I like to win.....I don't know what to tell you. It's just, it really feels great

> when you win. Probably because I don't have much control in any other aspect of my life, so that's the only place I do.

In addition, Brian had this to say when describing using the gym to physiologically and psychologically feel better about himself:

> Now that I'm going back to the gym and doing some things, I will say I'm feeling better about myself. I'm feeling more positive being more active. Not organized sports, obviously; but its individual effort work. I don't know if it's physiologically or psychologically. But by going to the gym I'm waking up better; I'm sleeping better; I have a feeling it's something that's, physiologically I'm getting the blood flowing better, so I feel better. My knee doesn't hurt as much. My shoulder doesn't hurt as much, unless I do the wrong things. It's mentally giving me a better—a better outlook on what I'm doing.

Source was a first-order category defined by Schlossberg as changes that manifest as the result of the deliberate decision of the individual or forced upon by other people or by other circumstances. Adaptation is said to occur quicker and easier when the source is internally organic. Similarly, this can be conceptualized by the internal locus of control construct postulated by Rotter's (1954) Social Learning Theory, which referred to the extent to which individuals believe that they can control events that affect them. In contrast, external locus of control means that people believe that their actions and decision capabilities are controlled by outside or environmental factors that they cannot influence (Rotter, 1954). Excerpts that were categorized under *source* are below. Here are a few examples where the *source* is external:

> (Brian): I like to blame others for when I have trouble; so that's probably part of it.

> (Whitney): So life transitions, going away to college. That was a difficult time. I had family problems. I have a family that is rife with problems, I'll just say. There's, you know, drug addition, alcohol addiction, some sexual abuse that

> should not have happened and things of that nature which all sort of conspires to make this sort of family chaos.
>
> (Bob): About that time I met the woman who's now my wife, my second wife. And as that relationship developed, it curtailed the riding a little bit just because there were other things in my life.

Below is an example from Kristen of *source* where it was internal describing her choices after she was in a bad car accident:

> And, you know, I went to the hospital and I didn't like it. But I healed. And I knew that it was because I was healthy and because I was physically active and because I was fit. And that was when I changed my major. I mean, you know, I decided I wanted to be involved in something where I could help other people learn the benefits of being physically active and being physically fit.

After the first-order categorization, two higher order categories emerged with sport interacting as an important influencer. The first and most prominent was named *actionable responses initiate self-resolutions*. From these interviews, it was clear that transitions required a proactive response in order for people to deal with them effectively. Most people who had negative affect perceived the transition to be externally caused, like Bob, Brian, and Whitney's examples. However, when the participants actively engaged in pursuing a resolution to the experienced change (or changes), a noticeable and positive difference in the outcomes was reflected upon. Sport was often used to assist with this resolution. In the case of Lonnie, he spoke about his life as very challenging because he did not receive external support in the form of positive recognition from his most intimate connections, namely his father and his football/baseball coach. He waited and longed for this to happen, but this affirmation never came which matched his expectations. For

example, Lonnie had this quote describing how he wanted others to recognize him for his youth accomplishments:

> I just wanted people saying, 'Yeah, look at—look at those guys, man.' It wasn't so much studs, but just that you're worthy, you know? What it really comes down to is I just wanted maybe Coach Brown, maybe my dad, somebody saying, 'You know…' [emotional]...I think it really came down to just, 'You're okay..... I could see they could just say, 'You're okay, Lonnie.'.....You know whose father said that, was TJ down the street.....And he would hold that on his kids. 'Why don't you be like Lonnie? Look at Lonnie – he's valedictorian. He's three sports.' He's all this. And of course that caused all kind of resentment from his kids to me, which I had also no control of.

Lonnie did not resolve this feeling of resentment until years later when he took actions into his own hands to recognize his only son when his son was not recognized on the football team. Although Lonnie did not necessarily resolve this resentment participating in sport, he did it through his *son's* participation and used sport as his platform:

> But Coach Blue told [Lonnie's son] after they lost their playoff game, '[Son], you're the only player I had that had a perfect season. I don't remember any bad snaps.' And so at the end of the season they gave one of the kids, probably the quarterback, Offensive Player of the Year, and one of the linebacker safeties Defensive Player of the Year, and there was no Special Teams Player of the Year. They just, you know—there was the Fighting Eagle Heart award and all this shit—No Special Teams. [Lonnie's son] goes, 'You know, I really wanted to get one of those big gold footballs in the trophy case for [city] for winning the district game.' So I went down to the trophy house, it was kind of expensive, and it was one of those big, gold trophies, you know? It was big. And I put on there, I put, MVP, I put '[Lonnie's son]—'[City] High School, 20[--], Season Special Teams MVP – [Lonnie's son].

From the fieldnotes, this is how I described Lonnie's emotional reaction and body language during this exchange:

> As [Lonnie] began to end the discussion concerning his son's trophy, he eagerly points to a picture in his office. The picture is of his son with his football gear on in action, presumably right before a big game warming up. His face begins to

> turn red and his eyes welling up in tears, but smiling...looking up to the ceiling as if reminiscing about his own past. He tells me how proud he is of his son. I begin to wonder that the trophy was a symbol of that...but then tells me his son is appreciative, but that the trophy was not necessary...his son didn't need it to feel good about himself. What struck me was that [Lonnie] needed it...almost as a symbol of redemption for the recognition he expected but did not receive from his significant others.

The next category was termed *multiplicity of transitions* and defined as many transitions from multiple sources that happen in a relatively short period of time in one's life. Multiple transitions caused heightened stress and a sense of loss in one's own volition and self-control. Further, it described that a series of perceived transitions and changes precipitated by external entities reduces the power of making decisions or choices, increasing the conflict people experience when trying to rectify this power imbalance.

From Gene:

> Uh, and then kids, things got ratcheted again. We had twins. So, we went from zero to a full family. So I remember that being, you know, really a lot of focus on getting that done. Coincidentally, my wife was not happy about it but I had leadership opportunities at work came up right in the same time period. We were having trouble having kids so I never thought, I mean, we didn't know we were going to have them and all of a sudden it was like to the day I took a bunch of leadership roles and all of a sudden had the kids onboard and had a new house in the suburbs. And all of a sudden things were really hectic. But by the time they turned five it was all normalized again.

Combination of life-event transitions forced people to do something about them to not only feel better about themselves, but also to take control of their lives back. Sport's role seemed to provide a way for people to assume control in the midst of a chaotic period. This is how Jenn used running as a way to take control back in her life:

> So running was both an outlet physically -- the life events that dictated my life were, again, when I was in elementary school my parents separated, later got divorced. I moved from Minnesota to Texas. I got divorced in Texas; moved to California; had two children. I kept moving back and forth from California to Texas, California to Texas. It was a very hostile divorce, and running was my outlet and my passion. And the further I would go, the endorphins would kick in. And it was a heck of a lot cheaper than a psychologist.

Timing was a variable under *Perception of Transition* that was defined, according to Neugarten (1977), as when transitions occur, there constitutes a socially acceptable temporal scheduling for the normative sequence of major life events. Neugarten suggested that most adults have a built in social clock by which they judge if they are on-time or off-time. Of course, this could change depending on what era a person is in and which social cohort they are a member of. For instance, getting married in the 60's was earlier in age (early 20's) for a couple than it is presently (mid to late 20's). Chronological age helps to define this for society. Thus, if one is off-time with a traditional life-event, then, according to Schlossberg, this may carry some sort of psycho-social penalty or deviance. For instance, having children as a teenager may infer a lack of responsibility. Ergo, there is more stress and negative affect that results from transitions that come off-time. In this study, a few examples of timing were illustrated, both on-time and off-time.

Dave's parents died but did not have any feelings of trauma due to it being "on-time:"

> My mother and dad died at fairly late in life. My mother died at the age of 90. And my dad lived to be 98. And so I had them around for quite a long time...

Conversely, Kristen's off-time event produced a perception that was very impactful:

> And then we moved to [City]. And obviously that was a major life change to quit your job when you're 38 years old and go back to school.

The second-order categories that emerged from this were: (1) *different perceptions for different times*, and (2) *escaping from the chaos*. *Different perceptions for different times* is described as the propensity for people to change their stance on a certain life-event as society alters its viewpoint over different epochs of time. In one genre, a life-event may be deemed acceptable at a certain age, but societal norms eventually shift people's perspective on what is considered deviant and what is considered normal. Sport participation's role was much more profound in women's experiences in this study due to the passing of Title IX in the 1972 Education Amendments. Title IX barred any discrimination on the basis of sex in any educational program or activity receiving federal financial assistance. Since, in the United States, sport is widely offered through its educational school systems, future participation opportunities in sport were significantly altered, particularly for women, after 1972. All of the women participants in this study were exposed to the periods immediately preceding and following Title IX. When the women were young, they proclaimed that they were not supposed to play certain sports as it was not socially accepted for women to do so. However, as times passed, their perceptions changed and exercised more freedom to play sports of their own volition and became avid participator's in sport and other

physical activities. Here is an example from Alicia when asked her recollection of playing sports in her youth:

> I remember my brothers playing baseball and now... girls play baseball. I just don't remember girls playing. I think it was just the times. I mean I don't remember if it was before Title IX or not because I don't remember when that came in. But, my brother....And they did all that kind of, all the boy sports. Maybe I had no interest. But I just don't remember anybody. I mean the girls went and watched the boys play. That's, that's what we did back then.

Another example from Beth on how times shaped her perceptions:

> So, I think that swim team probably was because, I mean, we certainly had other teams. I actually tried out- or went to a few of the practices for the boys basketball team because at the time it was a Title IX time, and girls to not have- it with a pre-Title IX time, girls did not have basketball, but that was just too freaky. I couldn't deal with that. So I think I would have loved to have played basketball had our school had a basketball team for women, but they didn't, so swimming, volleyball, and track. I'm pretty sure that swimming was just because it was one of the big sports that women could do, other than softball.

Next, *escaping from the chaos* referred to the confusion and disorganization that usually occurs during simultaneous off-time and on-time events. Off-time events created the most negative feelings, but combined with on-time events, a person's perception of the transition became highly stressful. Thus, people needed to compensate for this high stress and in this study, many participants articulated their need to escape a sense of disillusionment. Sporting activities played a major role as a surrounding that offered an escape from all of their life-event transitions. Whitney used running, particularly in 5Ks, to help escape from her chaotic life:

> I used to do 5-Ks. But running-running is a different kind of a thing. See, so that's an individual sport. So that's a different thing. I run for different reasons than I play team sports. Team sports takes care of the competitive side. Running is a release, so when I was doing a lot of running.... a lot of the times, it was because I needed to escape from everything. Running, for me, is kind of an escape. It's

> something I do by myself. So I would use running as a time to work out problems and to ask all those questions that you can't ask yourself when there's too much noise and stuff around you.

Onset was the fifth variable under the *Perception of Transition* factor. It was defined as expected either because they are inevitable or because they are the result of deliberate decisions that result in gradual changes (Schlossberg, 1981). Transitions are easier to adapt to when people can prepare for them in advance as opposed to suddenly. Atchley (1975) suggested that learning socialized norms of a particular situation in advance can relieve the discomfort associated with some of life's inevitable changes. This can be done through individual role rehearsal or interacting with others that already fill this role to understand the norm expectations. Schlossberg pointed out that *timing* and *onset* overlap in some ways, like an unexpected and untimely death of a loved one. Hence, this situation was much more difficult for someone to cope with because the preparation was inherently absent and challenging to accept. A couple of examples of this were as follows:

> (Jenn): I think the most significant thing in my life was last year, I had a 24-year-old son, who was a fireman, who died unexpectedly from a stroke....I had -- the worst thing that could ever, ever happen to a mother is to lose a son.

> (Beth): My parents divorced when I was 12, and I consider that a major life event because it was sort of out of the blue. I was shocked, and it was very disruptive to our family.

The higher order category for *onset* was coined with the phrase *practice makes perfect*. This was postulated to mean that people's preparation was key in order to allow themselves to feel a sense of control or volition in their life. Expectations could be practiced for and met according to those delineated by the social environment. Although

some transitions prepared for in advance did not remove traumatic feelings entirely, it was important to note here that adaptation to the event can be achieved quicker with preparation and advanced rehearsal. Here was an example of this below:

> (Whitney): My stepmother died of breast cancer. She had gotten it and it had metastasized. She was very young...not that much older than I was because she was 25 years my father's junior. So that hit pretty hard, but I knew it was coming. Once again, being in the sciences—I-I find that people—so it's striking to me that people who are not in the sciences do not really understand cancer and exactly what it is. It's....if you have a metastases, it's-it's a progressive disease. And so I probably knew, or was aware, of what was coming, and maybe other people weren't, and so I was....of course, it was devastating for me. And it was devastating for my father, but I think I was not unaware that it was going to happen, and it was not a sudden thing. So even though you can acclimate, so to speak, to an event that's going to happen, it still hits you pretty hard when it does. But I think it's a little easier to handle it when you're working up to it. So that was a significant thing that happened.

Sport's role on *onset* was very similar to that of *timing*, as it provided an outlet for escape but with known expectations. Participants frequently turned to sporting activities because they knew some of the rituals, traditions, and social norms of participating in the sport. It provided a level of certainty for people in this study that they could turn to in the face of an unexpected and distressing event. This excerpt was from Whitney's experience and what the sport provided for her:

> Because in team sports, there's this huge social component, and I think that you cannot discount the social component of being a part of a team. You know, it's probably analogous to being in a gang. I mean, you have this support group. You have these people that you see all the time. You learn things about them. You're doing something together. You're facing an adversary together.

Duration was a category from Schlossberg defined as the length of time someone perceived the experience to be from temporary to permanent. The greatest degree of

stress and pain associated with this construct was connected with uncertainty and prolonged duration. This was an example of prolonged *duration* and its effect on Brian being unemployed for five months:

> I lasted five months there and separated from the company, mutually agreed. At that point, I went into a bout of depression, and I stopped hard exercise. But was I officially diagnosed depressed? My doctor felt that I was showing signs, but he didn't do anything.

However, this prolonged stretch in Brian's life forced him to make a response to better himself, which led to the higher order category of *breaking the cycle.* After seeing his doctor Brian described using physical activity to get better:

> I was unemployed for five months, so, when I wasn't try—in submitting job apps or anything like this, I would go walk and just clear my mind and just walk. And I'd walk two or three miles a day. And that has continued to current. I still walk two or three miles, probably, three or four times a week when I'm—when I'm feeling okay....And I said to myself, I need to do something more. I'm going to go join the gym again. So I've joined a gym again. And I go to the gym four or five times a week. And I do the walking four or five times a week. So I'm getting more exercise now than I have for a long time.

Sport worked similarly to Brian's physical exercise regimen in Bob's life when trying to overcome and *break the cycle* in some of his life-event transitions and health issues:

> We hit the soccer. We hit the wrestling. Track. Other than the fact that it, if not literally saved my life, it made a profound difference in my life when I, when the sleep apnea thing came up. I was a miserable human being. I wasn't much fun to be around. I wasn't enjoying myself. But when I got active again, it made all the difference in the world.

Finally, the *degree of stress* was the last category in this section. As exemplified in each category up to this point, some level of stress was present whenever a transition occurred. Conceptually, this category was dependent on the others to some extent,

regardless if a gain or loss has transpired in the person's perception. In highlighting the duality of stress, conceivably, there is a tendency to focus singularly on the negative aspect of stress. This was not the case, however. *Degree of stress* was defined in this section with a duality frame of mind. Since many of the aforementioned exemplars provided evidence that some degree of stress was present, this section will skip to highlighting the more apropos higher order category that amplified the duality definition. The term *stress as a signal* was meant to capture stress's more neutral valence in order to underscore its significance to the transitional process. *Stress as a signal* described a necessary component for these participants to enact a corresponding response. In other words, the *degree of stress* was alerting people to do something in order to adapt or compensate from the consequences endured by the transition. The higher the impact of stress, the more urgent a response was needed according to the participants in this study. One area that was commonly referred to causing stress was health-related deaths of loved ones that caused participants high stress and *signaled* to them they needed to do something about their own health. Sport participation and physical activity played a major role as many subjects chose to respond using sport as an effective tool to re-stabilize themselves toward reaching an adapted state and reduce the stress.

In the following case, obesity ran in Jenn's family and she was constantly stressed out about gaining weight and having health problems like her extended family members. This was what Jenn stated concerning this constant reminder about her health:

> I come from a family of extremely overweight, obese, if you would say, genetic people on my father’s side, so much so that they have had -- several of them have had stomach stapling. And so, when you have that kind of a gene pool, I am

> obsessed with staying physical. I get up at 5:45 in the morning to do 45 minutes of 120 sit-ups, push-ups, and then I'm into weights. I work out with 15-pound weights. I don't really have the time in my life for organized recreation. This is all something that I do on my own.

An excerpt from Bob on how biking helped him manage stress:

> When I was in high school, my parents divorced and that is stressful on any kid. And again, I fell back on activity to clear my head. When your parents divorce there's lots of questions. How do you deal with this, that and the other? And it feels like there's so much going on in your head. You need a little, you need to clear everything out. And I found that I could jump on the bike and go. And the exertion would really clear my head. And so, you know, time and again I came back to the bike as a way to deal with stress.

Individual Characteristics. *Individual characteristics* was the second of the three factors that mediates the process effecting adaptation. Schlossberg ascertained eight significant variables in her model which were used for categories: (1) *psycho-social competence*, (2) *sex/gender role*, (3*) age/life stage*, (4) *state of health*, (5) *race-ethnicity*, (6) *SES*, (7) *value orientation*, and (8) *previous experience with a similar transition*. In essence, these factors were the demographic background of the individual participants that extended to their psycho-social beliefs and values along with their intrinsic experiences of past transitions. Some variables, like *SES* and *race-ethnicity*, referred to the previous demographic table for descriptive examples of the first-order category. In these cases, the higher order category was focused on with specific excerpts to avoid redundancy.

First, *psycho-social competence* referred to the capability of one's own self-attitude (e.g., self-evaluation, locus of control, and sense of responsibility) and behavioral attitude (e.g., active coping orientation, initiative, goal setting, suffering failure),

according to Schlossberg. This category served to describe one's ability to cope via their own personality traits. Furthermore, this capability was dependent upon the person's understanding of their own personality and self-identity in order to be considered an adaptive quality. Schlossberg cautioned that the effectiveness of coping capability may be highly influenced by the individual's life stage on a particular change or transition. Thus, this category was essentially heterogeneous. With this in mind, a few examples helped frame *psycho-social competence:*

> (Derek): And it [from] the standpoint of building the confidence and being sure in yourself and as I mentioned about being, I was shy, always wanted to have the, how can [I] get the acceptance of my peers and I got, really, that was achieved through, through athletics. I knew that if I could be successful, that it was going to put me in a position where people were going to recognize me and like me and got me out of my, out of my shyness and, this, this gave me the confidence to know that I could be successful.

> (Dave): I think a lot of confidence to overcome the tough situations you find yourself in down the road. I can remember that I really was scared to death of speaking before an audience. It was just, the stage fright was just too much. But I learned over time that that was not that big of deal. And you just do it. And I think it had to do with standing out there in front of people performing. And a lot of people looking at you and you know you've got to, you know, make good things happen. And I think that engenders, you know, good nerves down the road in whatever you're doing.

An example of Kristen's attitude after a car accident where her hip was broken and the doctors were not sure if she could play sports again:

> I mean I kind of don't remember. I think I didn't believe them. I think I knew that, I mean, I just think that I had a very positive outlook that, you know, yeah, this was going to slow me down. But this wasn't going to stop me. And it didn't.

Three major higher order categories emerged within *psycho-social competence:* (1) *learning the ropes,* (2) *fitting in,* and (3) *finding own self.* All three were tied closely together, forming a process of understanding their own psycho-social personality and

traits and how they fit in with the rest of the world. *Learning the ropes* was defined as when people are at the beginning of a constant quest to understand their own self attributes in which they need concrete confirmation to know themselves, typically from others. *Fitting in* was described as feeling comfortable around likeminded others and coming to understand what it felt to sense this comfort in a social setting. The cliché of "feeling comfortable in one's own skin" could certainly be an appropriate metaphor here. And, thirdly, *finding own self* was feeling a sense of resolution by actively defining oneself through their own volition. *Finding own self* acted as an endpoint in stabilizing one's own sense of self. Sport's role was instrumental in this process, as it provided an opportunity where the participants could fail and succeed, learning their own strengths and weaknesses along the way. Importantly, they were surrounded by similar people and received palpable feedback that helped them disentangle doubts about their own self and psycho-social attributes. In addition, sport was an environment where the participants had to actively engage in this process of *finding own self*. *Finding own self* cannot be achieved, according to the data in this study, as a passive endeavor, particularly using sport. For instance, there was no evidence that this occurred when people mentioned sport spectatorship, only when they actively participated in sport and/or physical activity. Pam had this to say about sport participation helping her learn and grow initially:

> I was a math and science inclination-type person. So I was rather introverted. It was good to get mixed in with other people and it helped me become, you know, more outgoing and I really enjoyed that. Also at our church, it was one of the first churches with a gym. Now, it only had four feet around the whole basketball court but, we would mix with other faith groups and have basketball games and volleyball games and stuff like that. So that was expanded my horizons.

Further, Pam talked about actively using her sport participation as a way to obtain social support and fit in with likeminded people:

> Social support but, if you're active in something like that--if you go to a new place or you meet new people, you have something to talk about. You have something to share. And if you have it in common, you might start playing racquetball or something with them, or it's like bridge, you know. 'You want to join our--our club?' or 'We need somebody to fill in, you know.' So, it is a support group.

And, finally, Pam understood she had found a comfort in herself socializing with others on a softball team:

> I played on a softball team [City]'s softball league with--again, it was a work group, and I wasn't really good at a lot of those. I just enjoyed the interaction and they needed people. So I was created. I would step right up there and try it. It was more the social aspect, and I knew that it was, good for my health. And I recognized when I started working that it was a great stress reliever.

Sex/gender role, *age/life stage*, *race-ethnicity*, and *SES* were all grouped together due their similarities at the higher order category developed under the vernacular, *finding expected role performance.* Further, each category's delineation was dependent upon cultural and societal norms which included beliefs, values, and behaviors. For example, *sex/gender role* was defined via the cultural and societal differences in expectation between a man and woman. Schlossberg's example was demonstrated by illustrating that normative behavior for a man was to hide emotion and deny problems where women are given greater freedom to express their feelings. One example of *sex/gender role* from this study was from two women calling themselves a "tomboy" when playing sports. "Tomboy" is typically a term used to describe a girl who exhibits behaviors or traits considered normative of a boy (Merriam-Webster, 2014).

> (Mary): But I swam a lot in junior high, and in high school. But I was always a tomboy, so I think sports just kind of came naturally to me.
>
> (Pam): I guess family-wise, I was always the tomboy in my family and I did things outdoors.

Here was an excerpt from Derek describing his father's lack of showing emotion:

> My dad was a hard-nosed, non-emotional individual, I will say that, I only saw my dad cry twice in his lifetime. First time was when his mother passed away and the second time was when I was a senior in high school and we were seven games into the season and they thought I had torn my ACL, and we went and saw a doctor and he says, I think you're done.

Again, each of these demographic categories were important to the expected behavior and thought processes of people concerning a transition, in accordance with societal and cultural norms, in order to adapt based on their gender, socioeconomic status, age, and race/ethnicity. Thus, the higher order category of *finding expected role performance* was depicted in this study as, during a transition, people were initially unsure about how they should act or respond. Therefore, these participants showed that they have to seek out the correct way to perform in agreement with set standards based on these demographic variables. Indeed, this involved obtaining feedback or approval from others informing them of their proper behavior. Sport participation was often a place where these participants could obtain feedback to check if they were "following suit" with the norms of society. In addition, the sporting context was a place where expectations of behavior were already known and defined where "finding expected role performance" became easier and more comfortable, allowing adaptation to be obtained. For example, Gene would play sports with a specific group of likeminded people due to

the commonalities they shared, particularly in their transitions and demographic similarities:

> I always worked for the same place. The basketball group was always work guys and we'd go right after work and get a workout in. And then I belonged to a health club so the squash team was like a whole different set of guys. And then when I moved to the suburbs, we developed a third group of guys that would do the platform tennis. And I think all, probably all those guys that I got to know were through our kids, the same age, so coaching together or going to PTA things together. So three, you had three distinct groups but for some reason, always some kind of commonality. Probably the squash group was the least common, although it was a bunch of white guys, a bunch of suburban white guys running around pretty much. So, I guess we had, I guess we did have a commonality with that.

Additionally, sport was also a place to challenge existing or long-held assumptions about norms. Here is an excerpt from Whitney describing what she learned about her own tolerance and feelings toward abuse against women in a martial arts group:

> So the first time I had to spar, I just about freaked out. I was crying. I was so frightened of sparring. I mean, I was absolutely just—that feeling, I will not forget. I was flinching. I couldn't engage with my opponent. And the person who was my opponent was my instructor who was very good, who was not going to hurt me. But engaging with him in a physically aggressive way was so frightening to me. And boy did that make me think, "What the heck was my problem?" That's really a different mindset, okay. So the thing is though, my reaction intrigued me enough that I did a lot of introspection....So because of my age, women growing up during my age range...I don't think it's as bad for girls now, but young women in the workplace and the school place, in anyplace, were subject to a lot of sexual harassment. I had it in jobs. I had it my doctor. I had it, you know, getting a physical. I mean, it was far more prevalent. I think now there is, because there have been lawsuits, and from the public viewpoint, I don't think it's a bad as it used to be. But it used to be sort of accepted...So I think that might have been part of it, that feeling of, you know, that kind of aggressive kind of thing. But that stayed with me a long, long time. But it didn't keep me from going back because I thought, if that's how I felt than I needed to do something about it. I needed to face that and change it. And so that was really good for me. And it taught me something about abuse and people being physically aggressive.

Another individual characteristic category was *state of health*, defined by Schlossberg as having the capacity to not only help alleviate the inevitable stress caused by a transition but also may be, in itself, a source of stress. In addition, Schlossberg suggested that an illness may spark a sense of a person's own mortality. In this study, as the participants aged, they understood the changes of their health and body through illness of self or others. Thus, a higher order category emerged under *state of health* called *health as a feedback trigger*, described as when people compare self with others and with their own previous self in regards to their health capacity. Noticing a difference or perceiving the negative health impacts of others and own self catalyzed a corresponding response. As previously noted with the category, *degree of stress*, the higher the stress response incurred led to a more aggressive and eager action to deal with their own health state. Furthermore, as people aged, more concern was placed on their state of health like this example from Bob:

> And that makes—as you get older, you start having concerns about your health and longevity. The one thing I don't have to worry about is my heart. The rest of me may fall apart around there. But it's solid.

Most of this study's examples in this category centered around a perception of a negative health state or fear of losing their current health status, like putting on weight, death of a loved one, or health problems in friends. But, this was not in every case, particularly when sport was considered in their perceptual context. For example, Kristen recollected an inspirational moment when remembering an older lady and gentlemen playing tennis:

> I certainly hope that sport continues to keep me young. Certainly being physically active I know is good for your physical and mental health. But one kind of cool thing about tennis...there was a lady I knew in [City] who was in her 70s, maybe even late 70s, who is still a very, very good tennis player. And at the [Club], the group I play with some on Monday and Wednesday and Friday mornings here in [City], there's a guy who's like 88 that plays. He doesn't move that quickly, but he does still run. I mean, he doesn't just stand there. And he's got good strokes. And he's competitive. And I'm like, "You know? That's where I want to be when I'm 88 is still on the tennis court." And so, I do think sport is something that can because of some of the people I've seen, you really can, there are some sports you can play your whole life and I hope tennis is one of them for me.

Secondly, just as Schlossberg described, a health state can also be a producer of stress, and a higher category emerged particularly with sport playing a role. *The motivation paradox* was a phrase that encapsulated the conundrum that many of the participants faced: pain of doing physical activity in exercise or sport when trying to reduce pain (or improve their health). Here were two examples below of *the motivation paradox*:

> (Derek): And people ask me, they say, you know, if you knew that then, if someone told you that at 63 years old you were going to have a tough time getting around, would you have played? And yes, I would have. And, because the bit of pain that I may have to go, endure, is nothing close to the benefit that I receive from sports.

> (Dave): I do believe that sports played a big part in building my confidence in being able to accomplish things. I had good experiences throughout. In general I will say you might think I enjoyed football, but I really hated it every day of my participation. It was such a difficult thing to have to do. I mean, the pain of it was there and the stress of it was there. But, looking back on it, I wouldn't trade my experience because I do think it helped me with life down the road.....The stress and pain of football was not fun.

The next category that was used for collapsing codes under in Schlossberg's framework was *value orientation*. This was when an individual's basic values and beliefs

were a factor in the ability to adapt (Schlossberg, 1981). Overwhelmingly, the participants' beliefs about life-event transitions were negative and they were major points in their life, particularly important in adulthood. From the trajectory chart that the participants completed (see Figure 4), it was a common occurrence to rate life transitions at the highest level of importance (100). Additionally, transitions were not enjoyable, and uncomfortable experiences were sometimes looked back upon with regret. Here was an excerpt from Derek:

> Oh, there are, the negative things that have happened to me, I had put work ahead of anything in my life and by doing that it really was a major factor in the failure of my first marriage, travel and the, the importance of, you know, building a career and unfortunately it, it was a demise of a marriage with two children that was a major, major thing in my life that, living in Chicago at the time, and the divorce and they moved back to Texas. I mean, it was a part of me that just was removed and, you know, to this day, I look back on a lot of those decisions that I made with regret.

Normatively speaking, some transitions are preconceived to be positive, like having children, getting married, and being promoted in a job. But, these were not given the same relevance as other, major transitions that produced a loss or negative affect. They were almost an afterthought and too commonplace, touched on with brevity lacking rich detail. According to Schlossberg (1981), positively valued transitions can help increase the onset of adaptation.

In contrast, the higher order category in this section included sport's role almost equally dominant as a positive experience and provider of needed resources. So, *sport as a remedy* became the nomenclature that described this belief participants had concerning sport's ability to serve one's needs when faced with difficult transitions. Specifically,

participant's believed that sport provided help physically, psychologically, and socially. Here were several examples designed to show the strength and commonality of this category in the subjects:

> (Jenn): I think the most significant thing in my life was last year, I had a 24-year-old son, who was a fireman, who died unexpectedly from a stroke. Without running in my life, I don't think I would have made it. For the past year I've been living to work and running seven days a week. It was a huge outlet for me [for] survival. Now I have a significant other in my life. He and I are into walking. We walk consistently, but without that running in my life, really, I don't think I would have made it.

> (Bob): It [sport] does because activity is a good way to meet and be around people. It's not absolutely necessary, but shared activity is fun. And I know that with me, the cycling has been a way to be around new people, more people, meet people. It's done the same thing for my wife with the running, because she joined a running club, and it was new people. And because they're, you have one thing in common. I think one of the things that makes it tough to meet people is what do we have to talk about? I'd like to meet some people, but where do you start? And this is probably why church is so popular for meeting people, because you've got something in common. But the sports and activity is the same way. Okay. I'm a runner. I'm a cyclist. I'm a soccer player. I'm a softball player, football player. Okay. There's now one thing that you share with other people doing that activity. And as soon as you have that one thing that you know is a shared quality, you start exploring what other shared qualities might be. And it's an icebreaker.

> (Whitney): I think, in my life, I'm missing a social component. And because I need the sports activity, I mean, I need sports, you know. And my husband is the same way, so this is good because we understand. I understand why he feels compelled to run for two-and-a-half hours, fine. It's like, "Honey, if you feel great after, it's great." so, for me, I don't have a social component in work. I don't really have a lot of time for just to do social stuff. I have to—I come from a long line of isolated people. It's—we have the isolation gene. There's hermits, I mean, they're all hermits. None of them are social on this side. So I have to force myself to do social things. I enjoy them, I just don't naturally do them. So recognizing this, I like team sports because, oh, I just—I like being—I like working with someone in that physical way. I really like the physical release. I think it's so good when you build up a lot of stress. You know, doing something physical where you're hitting something, like with Tae Kwon Do.

(Pam): I think it's [sport] always been a positive, you know, whether the--going into junior high and--and meeting new people through basketball.... I had never played soccer. So, when getting a new job and not knowing anybody at the research center and getting involved in the canoeing and the soccer were--you know, I made friends for life through that. The ski club same--but what's interesting, this [club], which is continuing education for older adults, two people that I skied with 30, 40 years are now in that. So we're renewing friendships there and, so that's--that's nice.

(Gene): I view it [sport] all as positive. I would say too that I viewed it as positive, because it was just, it allowed guys to hang out some. So, it was just a group of guys. It was great. And that particular year we had a lot of business, we were similar business but similar with life concerns where we were at. So, I think that was cool having that...When I played basketball that was completely all guys from work. So, that was, that was a great professional relationship that we were, we were all independent workers but it was sort of like having a, a business meeting afterwards. And I think a lot of guys I knew all the kids the same age and you could talk about your kids or talk about what's going on or talk about your wives or it was just, I think it was great to guys time to goof around. And we live an age where we were lucky enough that women, they always, women always seem to have little gaggle groups of whatever, their book clubs or the women's, our town had a women's exchange. It was really just a place where women went and took courses and sat around and shot the bull a bunch. I don't think guys do it as much so it was a great outlet for that to both have some camaraderie, guys that were in similar situations. And I think that was, that was probably the biggest.....just that whole camaraderie.

(Derek): Well, I owe it, owe all my success I can say to sports from the standpoint of building character at a young age, you know, the drive for success, not accepting that you can't do it and going into business or working for a company, interviewing for a job, I think all that plays a role. I never once went on an interview for a job that I didn't tell my....I was, I'm going to get the job. You know, I have, that belief is, it came from sports.

Another excerpt from Derek:

I think sports, no matter if it's whatever you participate in, builds character. It also makes you realize that just because you get knocked down you need to get back up and continue. And you know the old saying never quit, and I think that that carries over into later life when you get into tough times. You realize you have to pay the price and paying the price in athletics may be from a physical nature, paying a price when you're out of athletics in business could be a mental thing. But, paying the price to building the character, understanding that you can

> push yourself a little bit further than you really think you can. Those are a lot of great things that sports gave me. And I just have a tremendous drive for success and I think a lot of it was that you want to prove yourself athletically and then once those days are behind you, you still have that drive in you. And, that flame still burns today.
>
> (Lonnie): My dad falling and hitting his head was terrible. I just wanted to bury him and go back and coach my soccer team. That was the most important thing to me in the world

Previous transition experience was the final category under *individual characteristics*. Schlossberg defined this as individuals who have successfully overcome a transition in the past most likely will flourish at adapting to another, similar transition. People learned what they did or how they responded in order to repeat (or change) the same types of behaviors or strategies. In essence, this helped to mitigate sudden or off-time events, described earlier, that produced the most negative affect and prolonged adaptation periods. Contrarily, a person learned defeat through a situation and became more vulnerable, less stable, and lose the potential to cope in the future. An example of this situation was explained through Whitney's experience with multiple miscarriages below:

> And that was when I had my first miscarriage. I didn't know what was going on, and that was pretty traumatic, but, you know, it was kind of okay—it was, it was—I didn't have an inkling of what was to come.... And then I started to—we wanted to have a baby, so I was trying to get pregnant, and I miscarried again. Okay, so that time was a little bit more overwhelming because not only had it happened once, but it happened again. And so I moved on, still playing softball and running and then I had another miscarriage. And that one was bad. So at that time—I mean, now it's a little bit different, but at that time, they didn't really do anything to find out what the problem was until you'd had three. So I'd had my prerequisite three, so they did some checking out. I had a little surgery. I had a big ovarian cyst, so they removed that. So then we think, "Okay. Everything's going to be okay." And I had miscarriage number four, and if I had not had physical exercise, at that point in my life, if I had not a support of that then I think I-I'm not

> sure what would've happened to me. That kept my mental stability. By that time, I was really devastated....So I would get hopeful every time and then be devastated every time.

Under this umbrella, *learning facilitator* was coined to describe people who have successfully used previous transitions as a tool to draw upon in their adaptation strategies. Sport played a symbolic role in this sense and was often viewed as a microcosm of overcoming life's natural ups and downs. Here was an example in Dave's life where sport served as a microcosm of learning how to overcome difficult situations:

> Looking back on it, I wouldn't trade my experience [in sport] because I do think it helped me with life down the road. I mean, there's just so, so many times down the road that you face difficult situations and you, I guess, even subconsciously, can relate to the fact that, "Okay. I've been through hard times. And this, too, I can do."

Another example from Derek:

> So, you learn to live with somewhat of the disappointment from that aspect, you might do something that you feel was outstanding in that game to either help you win it or lead on the big drive down a field and its overlooked, and I think, through maturity, as a player and as a human being, you learn to accept that. And then when you go into later life, into business, it echoes itself many times.

Pre- and Post-Transition Environment. *Pre- and post-transition environment* was the final factor that adaptation was dependent on. As Schlossberg proposed, environment was broadly assumed and broken down into three areas that formed the basis of our first-order categories: (1) *internal (i.e., interpersonal) support,* (2) *institutional support,* and (3) *physical setting*. *Internal support* referred to the interpersonal relationships shared with family, friends, and significant others. Schlossberg used Kahn's (1975) concept of the *convoy of social support* when expressing a conceptual interpretation of *internal support*. Kahn imagined the *convoy* as significant

others who surround each individual during the movement through the life cycle whereby an exchange of bi-directional support was conducted between them. The receipt and the endowment of support is central for the existence of a *convoy of social support* along with the emphasis on movement and change. Anderson, Goodman, and Schlossberg (2012) illustrated Kahn's depiction of this concept and was replicated in Figure 5. The convoy memberships, starting in the center and moving outward, was more stable and role independent but became destabilized and vulnerable to role relationship changes as one reached the perimeter. Thus, as Kahn suggested, a convoy is a person-centered network of social support structures which act as the delivery mechanism for social support exchanges. Activities in which the person chooses to be a part of can alter this delivery structure. The individual's presence at the center of this structure created necessary, interdependency between people, important to interpreting the findings from this category. Stabilized and most trusted relationships and support are sought out first starting at the individual and moving outward. Thus, in regards to a person adapting to a transition, an individual's activities and behaviors are highly influential if social support will be received. Social support, as argued by Schlossberg, is extremely necessary for a person to adapt successfully. It requires proactive responses that include giving support, whereas receiving support, although necessary, is more passive.

In this study, *internal support* was widely prevalent during transitions and many of the previous examples offer evidence of this category. Interestingly, actionable, proactive behavior was more impactful in the belief that people were receiving support from others. In other words, their choices of proactively engaging others in bi-directional

support was perceived to be more helpful. However, finding the right context where their actions felt more comfortable was key to this process. Hence, moving to the higher order

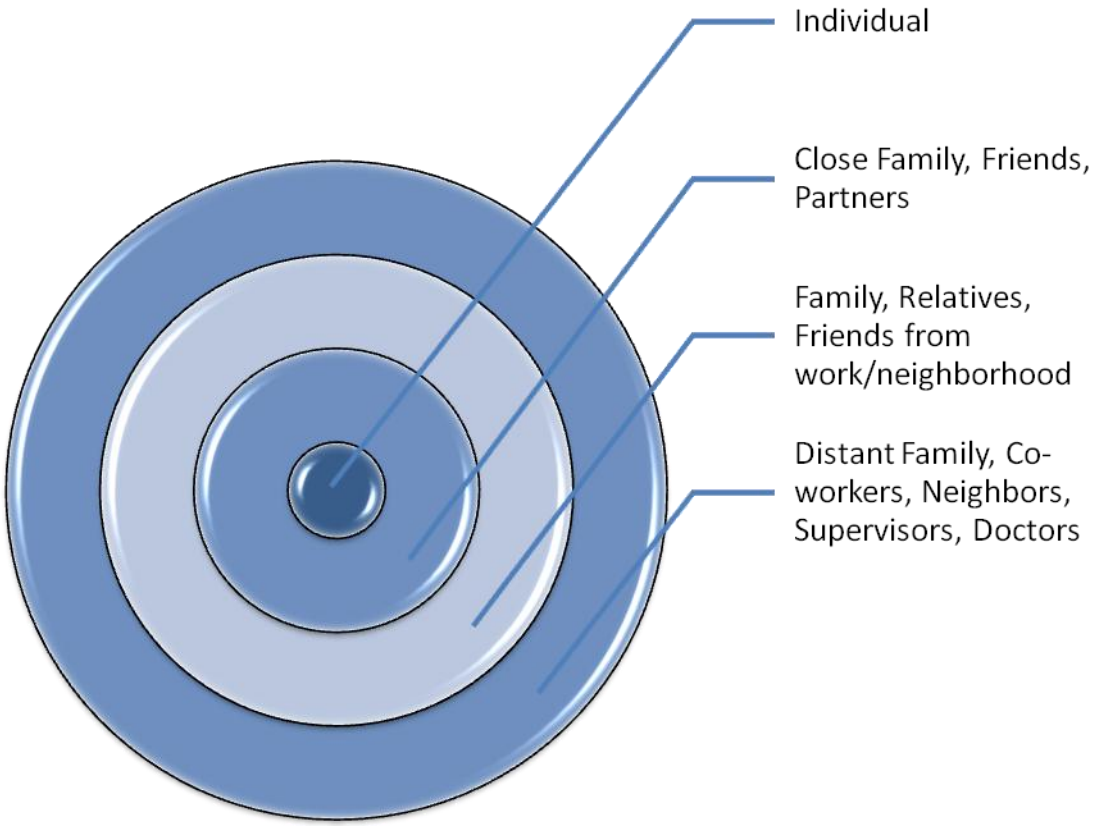


Figure 5: Convoy of Social Support (Kahn, 1975; as presented in Anderson, Goodman, and Schlossberg, 2012)

categories, echoing Kahn's interplay between a give and take of support, two names were provided to categorize the most common patterns: (1) *comfort in compatibility* and (2) *distress in deviation*. *Comfort in compatibility* was described as when one's presence is valued by significant others and seen as a source of reassurance of their own beliefs and ideals. As described earlier, people found this easier in groups of people common to their own self.

This "commonality" may or may not be physical or observed traits (i.e., race, gender, wealth), as more frequently in this study, it was portrayed at the psycho-social level (i.e., cognitive beliefs, feelings, emotional traits, social norms). This "likemindedness" helped people build camaraderie and an *espirit de corps* that, in many cases, transcended observed differences. Overwhelmingly, people used sport as a conduit to engage in these familiarities with others to feel comfort and social support. As far as sport's role was concerned, this was the most prevalent function of sport when people needed to feel better about themselves via social support exchanges. Adaptation to transitions was impacted by actively engaging in sport participation. Here were a few examples:

> (Derek): Early memories of football, or really early memories of sports, it was interesting, I was an only child and it allowed camaraderie and that grew as you grow in sports where, really, the team becomes almost a family to a certain extent. Different individuals, different schedules, show up, practice, play your game and everybody goes their different ways. But, those are the, those are the memories that really stand out. I mean, I really, I loved participating, I loved the challenge, I love the camaraderie, it was just a great time in my life.
>
> (Derek continued): Basically, my Dad and the marriage, I look back and sports was such a big conduit for me and my father and I don't know what other connection, we might have had. As I said, he was a hard-nosed guy and, you know, he was a believer in, you know, you can do it. And if I would have been a violinist, I don't know if there would have been the connection I would have had with him from that standpoint. It was almost like, I was always wanting to get his approval. And, and not only just get his approval, but hear his approval.
>
> (Kristen): And, [sports] was just kind of a lot of fun. I mean, those were my best friends. We hung out together. We played together. We practiced together. We traveled together. We stayed at hotels together. You know? It's just the camaraderie.....some of those people are still my friends today. You know? We still enjoy getting together.

(Bob): ...the fact that I was isolated from all my friends in an environment where I wasn't really, you know, very familiar, I didn't know where to start. And so I really didn't start riding while I was up there, and ended up giving the bike to one of my girls. One of my good friends had gotten back into riding a bike and was kind of, he wanted me to start riding with him.... And so the friend I was riding with, we rolled in another couple of our friends from college..... [Bike group] became a big social outlet for me before I met my wife and I didn't have a lot of people that I was hanging around with that was a bunch of like-minded people.

(Alicia): It was quite a bit of culture shock coming to South, South [State] from, you know, [City] and [City], which are big cities. And, and so I think what it provided was, like, an instant social group for us. Even though, like I said, we had a neighborhood with a lot of kids. And so we had friends. But I think it provided that social group, and also routines....And, and I mean, I just can't imagine what, how our life might have been different if we hadn't had that groupwhen we moved into this whole new situation.

(Beth): Rock climbing was fun for me because it gave me a way to address what I consider an irrational fear of heights. I am all for fear when you need to have to fear, but I knew that, you know, I understood the equipment, I trust the people I was with that I learned from the people that I climb with now, and, um, you know, I certainly have some of that fear still, but I was able to, you know, just force myself to address that fear and realize that I was safe. So I liked overcoming what I consider to be a non-real problem....I never wanted to do it alone because you always wanted to share the beauty with somebody else, see what you found and show somebody else that thing.

Below was an excerpt from Whitney on how she described differences in social support between men and women received while playing sport, but appreciated the value of both. In addition, she highlighted the importance of both giving and receiving support:

(men): There's a men-women thing, you know, the—so, my team with the most, that I've had the most experience with, women give support in a completely different way than men give support. Men give support just by saying, "That sucks." And then they're there. You know, if you want to talk, they'll give you a little feedback, but it's really easy for men to just, "That sucks." You know. You know, but you feel their empathy, but their response to it is like, "You know, okay. Go kick some ass now." You know, that's just their way of dealing with everything is to just go kick some ass.

(women): So, with women you get far more of the nurturing, and the questioning, and the, "What are you going to do now?" that kind of thing. So it's two very different types of support. But both of them are good in their way. So the thing about—when I was going through those transitions, there were times when, oh, my god, I was just angry, and frustrated, and angry when my father died because my work—my job was so stressful, and so much was going on that I couldn't be there when he died. And, to me, that meant he died alone, anger. So different situations, anger about divorce, anger about my son's stepmother. Anger maybe about even things that had to do with work, the unfairness of life. That anger was—you have to dissipate it somehow or it just eats you up. So going out there, I would have those people. And just checking in with those people like once a week, it was kind of nice because they're—so there are two aspects to it. They support you, and you support them. I think you also have to give people support. So it's not just receiving all the time, but it's giving it because when you help someone else then you benefit from that feeling. So, for me, it was both ways. It was helping them, and them helping me.

The next higher order category was called *distress in deviation* and highlighted the stress and conflict people experience when they did not find common ground with other people. Or, to put more succinctly, it was where people shared and exchanged different beliefs and values. Although this was common outside of sport, like in the workplace and even in dysfunctional family situations, it was also present in sport. Despite its infrequency compared to the previous category, illustrating this dichotomy in sport was important in order to display trustworthiness in data reporting as it showed negative cases with sport. This example was where sport provided harmful support because of differing viewpoints:

(Gene): It was the PE for jocks, for—the football team got to all go to PE at the same time. And it was basically training. It was workout, lifting, things like this. And I had a weightlifting accident caused by a coach; because I had my own routine that I worked lightweight one day, heavyweight one day. And I was on light day and I had this coach that....he and I didn't see eye to eye. And he comes over and gets in my face and says, "You get on the heavy weights; you're-you're loafing on me." So I picked up the heavy weights without looking—this was in the day before universal gyms and all that stuff—free weights. Collar wasn't on

> right. Weight slipped, flipped my arm down, my hand went numb; so that was kind of a-a telling experience....But having that injury and having that situation with that coach.....I didn't want to have anything to do with the guy. So that ended my organized career.....It's interesting to talk about the sports and feeling the emotions about, oh, [what] that damn coach did it to me, you know, that kind of stuff. I like to blame others for when I have trouble; so that's probably part of it, but not really. It's surprising, as we've gone through this, to think of the negative things about the sports. I enjoyed playing the sports; but it gave me more negative stuff, coming out of it, than it gave me positive. And I'm sure that linked to my injuries and everything else.
>
> (Lonnie): At this point Coach and I weren't talking. He says, 'Well, you won't talk to me anymore.' And I said, 'Because, Coach, you always make fun of me when I talk to you.' I think in order to deflect criticism of himself—He was kind of this fat guy, and he wasn't really that smart, and so I think he—when he found—when he came up against somebody smarter than he was, he would just kind of, like a squid—I don't know the terms, but he'd throw stuff at you, so that you wouldn't come at him, I guess. But I just quit talking to him. What for? So you can make fun of me? I need to be able to confide in someone and to be honest, just to get off my—I really couldn't confide at home, and I couldn't confide there, so I didn't tell people—I didn't say much, you know? It was just kind of, keep it—keep it to yourself.

Important to point out was the presence of a recursive (or unidirectional) environment that harbored these cases. Sport seemed to portray these instances during participants' youth years while interacting with an adult coach. Again, these examples were rare in this study, but certainly powerful to the individuals that experienced them.

Next, *institutional support* and *physical setting* were very closely related, principally in this project. Schlossberg posited *institutional support* as places or infrastructure where rituals, traditions, and norms symbolized that society was involved with the individual. This signifies that the individual is not isolated during periods of change in their life. Examples included religious institutions, educational systems, political and community groups, and occupational organizations. *Physical setting* was

defined as the climate, weather, neighborhood, urban/rural setting. According to Schlossberg, this factor is extremely influential in its contribution to stress and a sense of well-being and should not be underestimated. In this study, both of these categories overlapped regularly which was the main reason for grouping them in this discussion. The higher order category encapsulated these under the rubric called *controller of resources and support mechanisms.* This name described resources and sources of support that were determined by their accessibility and availability through delivery channels. Availability is a more broad term than accessibility in this regard and referred to the physical location, like a city, region, or community dwelling, that provided elements needed for the individual to adapt. Accessibility was the infrastructures, policies, and capacities within the physical domain that determined one's ability to obtain needed resources, support, and the rituals/norms explained in *institutional support*, like schools, church groups, jobs, or governmental agencies. Sport's role on *controller of resources and support mechanisms* served as a place where resources and support can be tapped, like teammates, education, and physical/mental fitness opportunities. Many participants explained in their youth and adolescent years that educational systems were the most influential "controller" in their lives, where sport programs were offered through schools.

> (Dave): Now [name] High School had, like most high schools and those in [Southern state] for sure, had major sports programs
>
> (Kristen): But once I got to [City], we didn't have PE in elementary school. We had recess. But there was always a softball or baseball game going on. And so I played that. And that was always a lot of fun. I loved that.

However, participants found it challenging to find sport during their adult years after college as most of the institutional support structures that provided sport were uncoordinated or poorly promoted. Here was what Alicia had to say when she moved to another city and searched for a support group via sport:

> When I moved to [City] one of the things I tried to do—and my coach here actually tried to help me—was to find a Master's Swim Team in the [City] area so I would be able to, like, I mostly just wanted to be able to train with somebody. It was like, I found one group and they weren't taking new people. And then another one was kind of far.... I went to my gym and there's all these people that can help you do that. And so I think that access is really important. I don't know how prevalent or how easy it is in other cities...So I think having those, that, that access, I think, is really important.... And, maybe not available everywhere.

Clearly, resources and social support were important in their adult years. Sport activity was found to be easier and people participated more frequently due to the availabilities and accessibilities provided through both *physical setting* and *institutional support*. For example, the physical characteristics of a location heavily swayed the type of sport chosen by the subjects. Living near water in a warmer climate or living near a swimming pool brought about people's lifelong involvement and interest in swimming and water sports.

> (Beth): I grew up in South Florida. I grew up on the beach....even as young as eight and 10, we were scuba diving. We were snorkeling. Before that, we swam and body surfed in the water almost every- well, I would say every day and on the weekends long periods of time. I don't know if you would count fishing, but we did fish.

Further, Pam described all the different places where she searched and participated in sporting programs in her later adult years provided by different infrastructure support:

> And so because the university was moving all their research units out there....where I worked was out there. It was just very convenient to exercise and

> they started aerobic programs and yoga programs. So I guess that was, you know, 40 to 50... I continued my aerobics at [workplace] and then, recently when I turned 65, they had a really good deal at the [company] Jewish Community Center. Lots of different, different classes. You know, even swimming, Zumba, which is dance oriented aerobics, all that. . They have Senior Fit classes. They have instructors that know what it's like. And I haven't been a member there long enough, but they all seem to know each other in the classes and they all have some--I'd say--I want to say, like, 60 percent of them are non-Jewish. And when you join that Center, you get their newsletter and you attend some of those things. And then just offline the classes will have lunches or they'll go hike together or whatever. I haven't taken advantage of that. I'm just thrilled to have exercise classes that are available. And that's probably what I see myself--you know, they have a huge room with all the bicycles and the treadmills and all that, but it's the social part that I like because the interaction is really...why I think organized sport is good, the socialize aspect of it.

To summarize, all of the first-order and higher order categories are listed in Table 6 shown earlier. The themes that tie all of the categories and run through the data was discussed in the next section.

Themes

Similar to the segment on categories, this section used the "describe-define-example" approach to identifying and reporting the themes that materialized from the data. Themes are different from categories in that themes are threads that run through all of the data, as opposed to categories where data is compartmentalized into similar groupings of data (Morse, 2008). Themes are more abstract and subjective in nature and hence, more open for interpretation and scrutiny. However, the previous approach of deductively sorting and coding data into theoretically derived categories, then developing emergent, inductive categories within the theoretical constructs was performed in order to maximize balance between objective and subjective interpretations. Increasing validity

and trustworthiness was a primary objective while being in alignment with our constructionist, epistemological philosophy for this study. Nevertheless, themes can (and are somewhat expected to) overlap and contain several categories in explaining the emergent patterns. They also depict the overall relationships between the categories and between themes. The following themes were developed are consistent with this conceptualization.

Four major themes emerged across this data set: (1) *journey to find the lost self*, (2), *finding your place to thrive*, (3) g*etting back in the game* (i.e., finding the lost self), and (4) s*port as a resource caravan*. *Journey to find the lost self* was characterized as a result of a strong pattern within two factors and its categories important in the adaptation process, *individual characteristics* and *perception of the transition*. This theme was classified as when a transition occurred, the psycho-self was destabilized to a degree and produced corresponding degrees of stress. In this destabilization, the person changed from a "known" self-state to the "lost" self-state. *Journey to find the lost self* was defined at the point in which a transition occurred and the process a person began in order to return to an earlier state of equilibrium. How this journey takes place initially was strongly influenced by a person's *perception of the transition* and their *individual characteristics*, particularly captured under the broader categories of *role change*, *degree of stress*, and *psycho-social competence*. Further, some of the higher order categories like *role uncertainty*, *loss of control of oneself*, *stress as a signal*, *learning the ropes*, and *fitting in* serve as a foundation for this theme's characterization. All of these categories contributed toward the emergence of this theme. This *journey* was fairly instantaneous

and almost inherently natural especially when a transition was on-time, expected, low stress, and plentiful resources to cope with it. The *journey* still occurred, but a person adapted extremely quickly. In this study, participants were asked over the course of their life to elaborate on transitions. So, the more important and significant transitions manifested itself in more detail, which were usually the opposite of a quick *journey*. Some participants' *journey* took a lifetime and may still be ongoing. The example from Lonnie was a vivid description of a *journey* to find his own self through redemption and used sport as a context in which to accomplish this in his current adult age:

> But, I felt it was a little redemption or something, or closure, whatever. I don't know if I'm going to play again. I can't do any better than we just did. I mean, I can't--I personally can't. The team can't--Well, they can go undefeated or something, and there's two other guys that are trying to get playing time at second. It's like, I got my season. I did well. I mean, that would be okay. I can just go back and coach. I'll coach first base, third base--give me a base, you know? I can just be around it you know? I don't have to do it. I've done it. I did it. I made up for all the errors at second and short and third, and got some hits and my team won, and we won the last game, and--You don't have to keep doing it, right?"

During this conversation with Lonnie, the below fieldnotes captured the above exchange:

> [Lonnie Fieldnotes]: He's talking about winning the championship on his senior league baseball team while playing second base. He shows me the gold trophy again and points to his name while reading the following gold plated inscription, "20[--] Champions--[Men's Senior League Team]." During this he goes to get his baseball bat and well-oiled and broken in glove he used in the game in the corner where his desk just barely leaves space against the wall. While mentioning the movie "For Love of the Game," he takes a huge whiff of the pine tar on his bat while closing his eyes, smiling in satisfaction and releasing, "Aaahhhh." He then smells his old baseball glove, puts it on, starts pounding the middle of the glove..."thump, thump"..with a clenched fist and says that he can't imagine doing anything better than winning it all in his league (shaking his head). He explains that everything went well this past year and he should maybe...maybe he's done

> with playing baseball? He mentions not totally giving it up...should perhaps change to coaching so he could just be around it...keep it in his life somehow. But, his satisfaction with winning appears to serve and correct some of the ills of his past and by quitting, he closes this chapter in his life....to my surprise, he abruptly ends the interview!! Saying, "I'm done."

This theme also demonstrated people's uncertainty and sense of volition loss during a transition. Initially and sometimes prolonged, people were not sure how they were supposed to act, where they were going, who they were going with, and when they will be "normal" again along the *journey*. This "uncertainty" exemplified the beginning of a journey, or the point at which the transition occurred in their own mind, and how it rendered anxiety to an individual concerning their own self. This was showed in Dave's earlier discussion about his own fear of speaking before an audience. However, this was another excerpt from Dave when starting a new job:

> I had no idea about any of that, and I felt very inadequate for many, for several years until I finally realized, "Okay. You don't have to understand every differential equation that goes into this to know what's happening."

Here was an example of uncertainty when Kristen was going off to college and departed home for the first time:

> So I went to college. So that was a pretty major life transition because even though I had already taken, you know, already had two years of college, I hadn't left home yet. So I guess I was 20 when I left home and went to [College]. And, you know, of course college, I just think it's probably the most profound thing that anybody can do to shape their future and change their life.

Kristen's example, as well as Dave's, showed that many of the participants' *journeys* started in their 20's when they began an independent life away from their parents or primary family. Although this theme was not limited to any specific starting age, it was

the most profound in young adulthood through middle adulthood (e.g., participants' 40s). The life event chart also showed this period to be the most highly rated in regards to the importance placed on transitions. In contrast, people's participation in sport and their level of relative importance during this time diverged in importance and in the quantity of transitions.

Second, *finding your place to thrive* ran primarily through the factor and categories of *pre- and post-transition environment* that drew upon the other factors. After beginning the *journey,* people's sense of self was destabilized, causing stress and discomfort. Thus, *finding your place to thrive* was described as when people probed and tried to locate places and people who could help them feel more contentment with themselves. This was important in helping to find a state of equilibrium, if only as a temporary oasis to serve as a "comfort zone." *Internal support, institutional support,* and *physical setting* categorized environments where these participants searched for a "comfort zone." Similar thinking people, shared experiences, familiar places, a sense of expectation or certainty, and the ability to feel enjoyment or satisfaction with themselves was prominent. This "place" could be described as a momentary sense of escape or a prolonged state of constancy. However, in most cases, this "place" was never shown to be permanent as changes occurred during their entire life. A return to normalcy was described by Gene previously when he finally seemed to adapt from many mid-life transitions of having kids, pursuing a career, and getting married. Further, sport participation played an important role as a place to find comfort all across the life-course.

Below was an example from Beth when she found a comfort zone in three different types of sporting activities with different people (and with just herself):

> In volleyball, I also really enjoyed the fact that there were times when as a team we played above our abilities. If we played a good team, a lot of the times we rose to that ability, and whether we won or not, we could say, "We played really well." I liked it when we had a synergy when people were, you know, when we were playing as if we didn't have to think about it, and we kind of anticipated one another's needs and expectations. My husband and I do a lot of whitewater paddling. I don't see a lot of couples successfully being good whitewater paddlers together. They end up fighting and going in the wrong way and having all kinds of trouble, and I appreciate the fact that we can just be seamless and the communication is just there, and those are all fun things for me. Rock climbing was fun for me because it gave me a way to address what I consider an irrational fear of heights.

The third theme was called *getting back in the game*, which described people flourishing in adapting only when they actually are proactive in their behavioral choices that managed the transition. Talking about it without action, passively, was unproductive for them. People felt a loss of control or volition when experiencing a transition. Under the higher category *actionable responses initiate self-resolutions*, earlier examples illustrated differences when people were proactive versus passive, particularly in *affect* and *duration* of the transition. In order to regain a sense of self, participants had to feel and (re-)enact the experience under their own internal locus of control. Otherwise, they felt uncomfortable, anxious, and/or unfulfilled. Kahn's *convoy of social support* implied an outward movement starting at the self and progressing toward different ecological levels (i.e., intimate friends/family/significant others, colleagues, acquaintances). This theme's essence reverberated this movement of actionable responses starting with the self and then to others based on trust and comfort level. In order to go through this

progression, an iterative, "trial by error" selection of suitable responses were engaged. Only when this process manifested beyond just cognitive processes about a response could a suitable feeling of experience be replicated that satisfied their loss of "self."

In Bob's experience battling negative transitions, he realized he had to change his habitual behaviors that led to his struggles. He remembered when he felt good about himself and the behaviors he was doing in order to feel that way again. He took the appropriate steps to *get back into the game* as stated from him below:

> I was having trouble at work where I was having trouble concentrating. Was having trouble engaging at work. And long story short, discovered that I have sleep apnea. And so to deal with that, I realized I had to change some habits. And I started thinking about just kind of my life as a whole at that point, and realized that I wasn't enjoying myself. And I started thinking back to when I was enjoying myself. And I always came back to, "I felt good when I was active. I felt good when I was active." And when I really felt good was when I was on a bike. And so I bought a bike, single speed mountain bike. Started riding a lot with my friend. And it was remarkable because suddenly I was sleeping better. I was physically getting back into better shape. I felt good and so I moved from [City] back into town. Moved into the middle of [City], into a walkable neighborhood. And that was remarkable because I got an hour and a half of my day back just by changing where I was living.

The final theme and the theme that best captures the answer to this research's question was *sport as a resource caravan*. This highlighted the individual's beliefs concerning the importance of sport during their search for sources to resolve the destabilization caused by transitions in their life. It illuminates the potential sport has as a provider of necessary resources that can assuage the difficulties of change, leading to an increased capacity to adapt. *Sport as a resource caravan* crossed over all of the categories and can be conceptually understood as moderating the factors that led to

adaptation. It impacted a person's perception of a transition, individual characteristics, and the pre- and post-environment. To return to how sport was defined, the participants included a broad range of activities that, for them, qualified as a sport. Importantly, exercise, purposeful activities, and leisure activities, as normatively defined, were included under the participant's sport rubric. Nevertheless, sport, broadly and participant defined, was characterized most as a coping strategy that acted as a support conduit that included a ripe sanctuary for a *convoy of social support* to thrive. In alignment with the third theme, the re-enactment of sport participation, not simply being a passive spectator or ardent follower, allowed for resources to be attained. So, merely watching sport or having a high ideal of sport was not supported as influential in the transition to adaptation process in this study. To be fair, most of the participants had nothing but positive interpretations of their sporting experience. This may have contributed to their engagement. But, to point out, Brian's early football and sporting career left him with negative experiences of sport, but he still believed it was important for him (and his wife) actively engage in sport to reap the benefits, particularly from a state of health point-of-view. Nonetheless, Derek's recollection captured what most subjects opined about how actively engaging in sport assisted with their life-event transitions:

> But there's probably some things, I contribute [to] the athletics, sports participation, to what he instilled in me. And I have a philosophy that there's two types of people. That there are, in the arena, there's participants and in the stands there's the spectators. And those spectators wish they could be a participant. And I think once you play a sport of some kind, you understand that. I'm a firm believer in that.

Here was an example (in no particular order) *from every other participant* in which they described sport's role and what it provided, emblematic of *sport as a resource caravan* theme that covered many types of resources in the psychological, physiological, social, emotional, and physical realms:

> (Bob): I don't think it's ever had a negative effect ever in my life. It's, sports and activity has consistently through my life been a positive influence in helping me deal with transitions where there's been any kind of emotional churn, anything that has introduced stresses into my life. Every time I've used sports as a way to mitigate that, it's always been positive. I know now that if I'm feeling stressed about really anything in my life, that by being active I'm more capable of dealing with that transition or stress.
>
> (Carla): Well, it's always assisted with life transitions in a positive way. You know, bouncing through some tough times, it's just really nice to be able to enjoy sports and even a walk, you know? Even a 30-minute walk or a 20-minute walk is going to give an attitude adjustment. So it's always been positive. And, you know, like last night I was really tired. It was a really hard day. And I go, "I don't really want to go to racquetball. I don't really want to go to racquetball. But you're going to feel better if you go to racquetball." And I made myself go. And so it's just always a positive, you know?.....Well, when I was going through divorce I would play racquetball with my friends and it would just, you know, we would just have fun. I would pretend the ball was his head. You know? So see me get fired [up]. It was, so we're friends. It's all okay. But you know, again, it gets those endorphins going. And it just really helps with the attitude and reaching out and getting through tough times.
>
> (Kristen): Okay. Well, here's an example I remember. This is fifth grade. So fifth grade, I'm new to the school. We had moved to [City]. I didn't know anybody in the school. I guess we had probably moved there in the summer, so maybe I knew a couple of neighbors. But I remember that when we went outside to play softball or kickball or whatever, that I was pretty good. And so that helped people like me. It's like I think that helped me fit in because I was somebody they noticed because I could actually hit the ball or kick the ball or whatever. So that was, that was kind of good. When we moved to [City] as well, we lived next door to a family. And the oldest girl was a little bit older than me, but she liked sports, too. And so we immediately became friends and would toss the football in the front yard. And then there were other neighbor kids that would come over and we would all play foursquare in the driveway. And so I think sport helped me in that

kind of transition. It's probably not that easy to move and change schools when you're 12 years old. But I think sports helped that.

(Dave): I referred to it earlier in the fact that I think it taught me a lot of confidence in myself to handle difficult situations. You know, when you play organized sports, game after game after game, and practicing long hours, you develop a certain level of dedication to doing good. Making success happen. And it gives you a lot, I think a lot of confidence to overcome the tough situations you find yourself in down the road.

(Beth): Well, again, as I was saying, I don't feel like if I don't work out or if I don't do a sport, I'm going to be unhappy fundamentally, but I think that it contributes to my happiness on all of those levels that we have discussed, like the camaraderie. I like being physical. I like getting better. I like getting stronger. I like the synergy of a team effort. I like feeling in sync with my partners in whatever sport. It is something fun and healthy to enjoy with people. So, it definitely enhances my life, and I enjoy doing it, and a lot of my sports are outdoor things, and I firmly believe I'm happier when I'm outdoors. So it kind of happens outdoors, therefore I'm happier.

(Alicia): Well, from my experience and my point of view, I think it provides connection to other people that share a common interest. I think after I finished my doc and I started the Master Swim Team, I met people again that you just kind of having stuff in common and you become friends. I swim at [City park] fairly regularly. So all of us that are regulars there, you kind of like become friends. So it's social in a lot of ways sort of with that common bond of something that you enjoy doing. And it's sort of like, so for me it's like, I have a group of what I call my swimming friends people that I met through swimming as opposed to my music friends or other kinds of friends. So I think it provides that as well as the fitness aspect of it. So to me, I know people that, that still swim like all their lives, which is why I'm glad I'm a swimmer, because I think it's something you can do even when you get, really old. So, I think there's a lot. I mean those are probably the main benefits. I mean it's the fitness part and the enjoyment.

(Jenn): Oh, hurt? I would say complete opposite. I've been divorced three times; I've had two miscarriages; I had the worst thing that could ever, ever happen to a mother is to lose a son. And so my life hasn't been a bowl of cherries. But I could either have a self-pity party -- and every time that that happened, I would get out and run. And again, I cannot overemphasize that without sports in my life, I could have sunk into depression or I could have overeaten.

(Whitney): So that's my only negative aspect is that I wish I had done—it—doing sport sort of pointed out to me that there were things that maybe I would've

excelled in if I had training at an earlier age. So, you have to appreciate a good athlete. I mean, there's just something highly appealing about athletic prowess. You know, it's pretty much runs through our society. It's valued. Look how ridiculously it's valued, millions of dollars for an athlete as opposed to a teacher or a scientist. You know, and who's giving most? I mean, it's ridiculous. The positive aspects, oh, those are numerous. So positive aspects are, the social component, relieving and giving a social aspect to a life that is overwhelmed with time constraints. Making someone who has a tendency to be highly individualistic and maybe a more of a loaner part of a greater component. So allowing me to fit in where it might have been—otherwise have been difficult for me to fit in in other places. Confidence, physical confidence is, it's underrated. I mean, if you have physical confidence, I think gives you the courage to maybe try other things. Of course, the health benefits. You can't discount the health benefits. Those are enormous.

(Lonnie): So going to a little school was—even though there were some up—some up's and downs emotionally, it was—the whole key is getting to play [sports]. The other key, I think, is some kind of affirmation, and then getting a chance to play. I don't know how to explain that, but I can't believe some kids that didn't get to play. Or kids that didn't get along with the coach and quit, which is probably worse. And then I went to St. Mary's, and what I learned there was that—well, I ran into kids from up north that knew basketball. Should have played soccer. Didn't avail myself of the opportunity to coach coming out of high school. Mistake. Biggest mistake, right there. Going to medical school – big mistake. It helps that you want to help people and you care about people, which I do, but it's not the same as playing sports or coaching sports. I can guarantee you that.

(Gene): I view it all as positive..... And I think that was probably the biggest, so you can kind of bitch or compare or just you can get some steam out of your system. Usually it [sport] was active enough that you actually did raise a sweat and somehow throw a beer in there when you're done. And, so that, just that whole camaraderie....So, it was kind of nice adding another entanglement to the web of things you were sharing. And it helped a lot with if someone's kid was sick or stuff would come up. So, you felt kind of, it was little, it was a community thing.

(Brian, as a negative case): Positively, I got my first girlfriend because I hurt my knee, because I was a football player. Other than that, I would say the other sports things have been negative—the other things about sports, the injuries, the run-ins with the coaches, things like that, have negatively impacted me—although, now that I'm going back to the gym and doing some things, I will say

> I'm feeling better about myself. I'm feeling more positive being more active. Not organized sports, obviously; but its individual effort work.
>
> (Amy): It's [sport] always been a big part of my life and so everybody that knows me, knows that and so it-it's just always been there and I would never want it not to be. It was purposeful. I just know that being consistent throughout my life... I'd have to say that I was moving through these transitions knowing that I was going to be okay because I could be mentally clear a lot of the times through it instead of getting all jammed up crazy and not having an outlet.
>
> (Mary): I don't know how to explain it, except that, when I found volleyball, I found people to play with again. It just steps my life back up a notch. I don't know how else to put it, other than that. It's something I look forward to. And then when I was just really getting into playing with this group when we moved to [City]. And I thought okay, I've lost it again. But then I started reffing and meeting other people who played and so to move to [City] was scary. But it didn't take on me, I took it by a year to get back into, to finding people to play with. And starting to play again and actually becoming part as involved as I had ever been in my life.

DISCUSSION

In Chalip's (2006) Zeigler Award lecture, he beseeched sport management research to test the tenability of popular beliefs about sport. Popular sport beliefs that are fallacious were characterized as having deleterious impacts on sport research and sport management practice (Chalip, 2006). Further, Chalip espoused that the future of sport management as a distinctive discipline rests on scholarship that can disentangle the idiosyncratic boundary conditions from emergent theories, either borrowed from other disciplines or as a derivative from sport. He argued that both approaches are necessary and complementary. A reasonable place to begin is with sport's legitimations on its significance and value, like health and salubrious socialization, and challenging popular wisdom about sport (Chalip, 2006). For this project and particularly this section,

Chalip's recommendations helped shape and integrate the discussion analysis with the results.

First, the popular belief that sport can engender positive development is overwhelmingly focused at the youth and adolescent stages of life. Very little research addresses how (and if) sport can affect adult development. The discourse on human development advanced several well-researched theories that advocated development as clearly possible, essential, and inevitable as people age. Development's fallacy continues to be harbored as synonymous with positive gains despite scholarship that supports a process of development that includes both gains and losses. Thus, this discussion section includes a dialogue that helps to expand the boundary conditions of sport as a developmental tool from youth to the adult realm while explaining developmental components that are critical to positive and/or negative outcomes.

Secondly, this section discusses the gaps of extant sport literature in examining sport as a distinct setting with qualities that may impact the developmental process not yet established. Currently, the relationship between sport and the transitional event has been decidedly isolated within the viewpoint of the effects transitions have on the sport context, the individual athlete, and/or the athlete's career (cf., Pearson & Petitpas, 1990; Petitipas et al., 2004; Sinclair & Orlick, 1993; Stambulova et al., 2007; Wylleman et al., 2004). Typically, this is researched in an elite sporting context. The components of the transition are therefore well-known and implications continue to be postulated on how sport or the athlete can adjust based on the types of transitions (e.g., Wylleman & Lavallee, 2004). In addition, resultant strategies that can mitigate or manipulate the

impacts of the transitions for the betterment of sport development or elite athlete development are advanced, like policy (De Bosscher, De Knop, van Bottenburg, & Shibli, 2006), post-retirement planning (Stambulova, Alfermann, Statler, & Cote, 2009), or athlete advancement (Bruner, Munroe-Chandler, & Spink, 2008). However, sport has not been considered as a possible buffer nor has its efficacy concerning its buffering capability on the transitional process. This is important because the transitional process is embedded in the developmental process. In the leisure literature, recent evidence has been established that certain leisure activities (that may or may not include sport) do serve as an insulating role in coping with normative, daily life stressors (e.g., Iwasaki & Mannell, 2000) and traumatic injury (i.e., spinal cord) or onset of chronic illness (Hutchinson, Loy, Kleiber, & Dattilo, 2003). Leisure activities are theorized to provide relief in the form of psychological constructs like distraction, generating optimism, and enabling individuals to preserve a sense of self (Kleiber et al., 2002). However, research is scarce on explicating the benefits beyond psychological effects. If the popular belief is that sport can serve holistically to facilitate human development (or even community development), then understanding sport's distinctive qualities that influence this process that includes psychological, social, physical, and other resources would be illuminating to sport managers wishing to design and implement sport for developmental purposes.

Hence, the aim of this discussion section seeks to integrate the interpretation of the results and its significance which may delineate important impacts on sport management as a discipline. First, I discuss how sport as a context relates to the human development and transitional theories. Second, I propose practical implications learned

that are different from the current discourse concerning extant literature on sport, leisure, and transitions. These implications may shed new insight on how sport could be designed and managed for developmental purposes for all ages and athletes.

Life Course and the Transition Process

A primary concern was to investigate sport's role on life-event transitions across an individual's life-course. This aim was important to learn if sport had the capacity to influence valuable resources necessary for adaptation, and thus, providing a system where the developmental process may be positively altered across the life-course. According to Resource Theory (Hobfoll, 1989), resources help serve people instrumentally and they symbolically help define people. Through resource attainment, evidence and theory suggest that people can adapt to a transitional experience more efficiently and effectively. Hence, this study's impetus was to identify sport's role as a setting that could provide resources which assist (or buffer) people in transitions. Through this, we may begin to isolate the design components of sport necessary for resource exchange facilitation in future research.

Participants were asked to tell their life history concerning sport, transitions, and sport's function on transitions from their earliest memory until the present day. From the fifteen interviews, four major themes were derived that explained the process an individual navigated in adapting to a transition and how sport can be interjected into this process as a resource-rich setting. The themes were presented in an order that began shortly after a transition occurred, highlighting the mediating factors leading to someone

overcoming the change and stress that impacts an individual. Sport's theme was presented last to show a possible strategy people could utilize during this process in congruence with sport's role.

The major finding was that transitions rendered both tangible and intangible losses, particularly in people's sense of self. Their comfort zone of who they are, the relationships they have, and the environment they are in were disrupted. Hence, a person was forced to adjust to this situation and started a journey to find their own lost sense of self. This usually included a direction from internal to external re-stabilization. Naturally, people had to explore a new environment to regain equilibrium and find their "new" comfort zone. This very much has both psychological and sociological ramifications. An internal to outward process included a proactive search to obtain needed resources, like social support, that assisted with their adaptation. From the data collected in this project, sport was a resource-rich system people sought out because the expectations of its benefits were strongly associated with sport. A belief that sport provides benefits is well documented and this study confirms these reports. To reiterate, sport was believed to be a system where multiple opportunities to engage in relational exchanges with others or rectify their own internal conflict with themselves could be achieved. Resources like social interaction, self-efficacy, self-confidence, and vigorous physical activity were explained to assuage conflicts precipitated by a transitional event. In this sense, the role of sport on the transitional process was conceptually understood to be a multi-tiered system where resources flow more efficiently and effectively between and within individuals, and this system can be tapped in a time of a transitional event.

Consistent with Kleiber et al.'s (2002) postulation on leisure, sport acted as a buffering mechanism during transitional events.

Elder's (1994) perspective on the life-course developmental paradigm emphasized the impact social forces play in shaping a person's developmental life trajectory. He viewed the life course as a multi-level experience that is interwoven by age-graded trajectories. Further, transitions are always embedded in these trajectories, providing structured form, shape, and meaning (Elder, 1994). Hence, each person's life trajectory and developmental curve can be viewed, microscopically, at the level when transitions take place in a person's life. Bronfenbrenner used his Ecology of Human Development Theory to illuminate the influence of multiple systems, including transitions across the life course, on relational exchanges important for human development occurrence. These relational exchanges are beneficial because, according to Hobfoll (1989), resources can be attained for the betterment of the individuals. To answer this study's main research question, sport's role acted as a multi-level system that was actively sought after by individuals in order to obtain needed resources necessary for them to adapt to life-event transitions. Sport provided a resource-rich setting that people believed assisted them across their life. In fact, this study exhibited situations when people disengaged in sport participation when transitions occurred, negatively affecting their psychological, social, and physical well-being. They believed, at a particularly point in their life, that other settings or systems beside sport were more beneficial to them and thus, chose other alternatives, like vocational work. Not only does this study exemplify sport as a positive resource provider, but it also shows that disengagement from sport may produce

deleterious effects in their transition to adaptation process if a suitable replacement cannot be found. Spending more time at work may not be a suitable replacement if it is devoid of physical activity and positive social relations, for instance. The theme, *sport as a resource caravan*, illustrated the role of sport as a resource-rich system and provider, which is the major finding of this study. Moreover, this may provide another perspective on why elite athletes commonly struggle when retiring from sport (e.g., Stambulova et al., 2007), since they may be replacing sport and its environment with an alternative not as resource plentiful.

Additionally, this study illuminates the transitional process at the micro-level from a life-history, topical biographical design. Results indicated that adaptation from impactful transitions is important in quality of life and someone's overall life development trajectory. The process of adaptation from this study's participants elucidated a duality that indicates the necessity of a push-pull between gains and losses. Life is a series of events and moments, no matter how big or small, influenced by time, social, and spatial contexts (Elder, 1994). These instances produce change that require individuals to respond to these changes, and how well a person responds depends on both the individual characteristics and the environment the individual resides (Schlossberg, 1981). Developmental paradigms acknowledge that change can produce gains and/or losses, and development across the life involves the interplay of both (cf., Baltes, 1987). Development is never pure gain nor pure loss, and a development curve is the result of the accumulation of net gains and net losses along the way and along multiple levels. Transitions and adaptation to transitions are central to this overall gain/loss process, as

the ease of a adaptation is dependent upon the balance of resources to factors that affect the individual (Schlossberg, 1981). These factors include an individual's sense of competency, well-being, health, social relations, and environment (Schlossberg, 1981). In this study, the first three themes confirmed the transitional process, the duality of gain and loss, and how factors are effected during a transition at the individual level or *microsystem.* Finally, it shows a contradiction toward the popular beliefs that (a) development is synonymous with progress and (b) development is separate from adulthood.

The themes, (1) *journey to find the lost self, (2) finding your place to thrive,* and *(3) getting back in the game* implied a progression of intra-, inter-, and exo-personal stages immediately following a transitional event that includes a multi-level experience. Anderson, Goodman, and Schlossberg (2012) explained that transitions occur in stages and successful adjustment occurs over time. Along the way, people change, which affects their role, identity, relationships, routines, and belief systems that can be positive or negative. Adaptation is only said to occur when this change is fully integrated into oneself and their surroundings (Schlossberg, 1981), referred to as "boundedness" by Lipman-Blumen (1976). Until this integration occurs, a person experiences a sense of uncertainty and a journey toward an unknown state which requires a person to overcome anxiety and fear by selecting coping strategies to return to a sense of normalcy or certainty (Brammer, 1991; Bridges, 2004). The ability to select and/or access optimal strategies is crucial to the transitional process. Sport was identified as an optimal system

to acquire resources that were lost in a transitional phase. More importantly, sport was identified broadly as having the capacity at multiple levels to serve this impetus.

Some subjects described their optimal sport setting as only at the intra-personal level or *microsystem*, like riding a bike or running alone to overcome psychological or physiological issues. Within this *microsystem*, the processes in order to sustain equilibrium or promote positive development is dependent upon the content and structure of the *microsystem* (Bronfenbrenner, 1994). This includes psycho-social roles, interaction and interpersonal relations with the immediate environment, and individual characteristics (Bronfenbrenner, 1977, 1994; Schlossberg, 1981). These are all mediators in the transition to adaptation process. Participants in this study experienced an ending of a state of constancy, in which transitions caused a disruption in the persons' *microsystem*, causing role change, anxiety, uncertainty, relationship adjustments, etc. Stress was felt and catalyzed actionable responses, which people engaged in a search (or *journey*) for comfortable places and similar people to help them in the *journey to find the lost self*. An effort to fix their current system or look for other systems to fulfill their need for re-stabilization symbolized this theme. This process is very much implying an inner state of turmoil that begins at the internal and interpersonal level, punctuated by Bronfenbrenner's *microsystem.* If people do not find strategies or the ability to cope internally, then they move outward to find assistance in another setting or system. For instance, if people did not feel that their individual sport choice, like biking or running alone, was sufficient, they turned outward for other outlets like team sport (e.g., volleyball, softball) or team-like settings (e.g., tae kwon do).

In this *journey* outward, people turned to familiar and comfortable places that they know, combating or trying to stabilize the already sense of unknown and distress caused by the transitional event and system disruption. This finding confirmed Kahn's (1975) concept of the *convoy of social support* (Figure 5) that infers movement from the focal person in the center of concentric circles outward in their search for social support. In addition, this also integrates Bronfebrenner's depiction of ecological human development via multi-systems. In other words, people experiencing transitions try to locate people close to them for support then search outward to people or environments that are less close or known. This also supports Anderson, Goodman, and Schlossberg's (2012) postulation of the transition process:

> The process of leaving one set of roles, relationships, routines, and assumptions and establishing new ones takes time. The process of a transition occurs in phases and involves leaving behind the old and moving on to the new through an emergent growth process. During this process, people need to reconcile the paradox of holding onto both the comfortable and uncomfortable to fully self-organize (Bussolari & Goodell, 2009). (p. 49)

Further, Bridges's (2004) discussion on the transitional stages consisting of endings, neutral zones, and beginnings adds extra support. He described the process as starting with "endings" where transitions render a stage of disillusionment and disorientation, "ending" a stage of equilibrium. Moving, death, job loss, and ends to relationships are examples that start this stage and end your "old" life (Bridges, 2004). Neutral zones come next as a "moratorium" to the period of influx experienced in the "endings" phase (Bridges, 1980). In this study, this phase was exemplified through the category called *breaking the cycle*. Participants used sport and physical activity for an escape and a place

to be insulated from the chaos they experienced in their own life around them, particularly during their adult years, envisaged in the *multiplicity of events* category. Kleiber et al.'s (2002) *distraction* effect of leisure is also consistent with this conceptualization. This was a time to bridge the gap, socially and psychologically, between Bridges's *endings* stage and final stage, *beginnings.* It is a stage where a new start marks the end of the first two stages, initiating an adaptation of a new "self" integrated into the reality of the "old" self.

Finally, Anderson, Goodman, and Schlossberg (2012) proposed an integrative model of the transition process that included Bridges conception which described a three-stage cycle of *moving in, moving through,* and *moving out.* They described the process as follows:

> In any transition, the first stage can be conceptualized as either moving in or moving out. They need to become familiar with the rules, regulations, norms, and expectations of the new system.....Once in a new system, adults confront issues such as how to balance their activities with other parts of their lives and how to feel supported and challenged during their new journey....We see that the moving through period begins once learners know the ropes....Moving out can be seen as ending one series of transitions and beginning to ask what comes next....When leaving familiar surroundings and people or ways of functioning and interacting to which one has become accustomed, on experiences disequilibrium....The larger the transition--either good or bad--the more it will pervade an individual's life....Then, finally and gradually, the sharp awareness of [experiencing the transition fully]--the transition has been integrated. (p. 56-57)

This exemplar quoted from Anderson, Goodman, and Schlossberg's book matched the process toward adaptation people experienced when facing a transition in this study and acknowledged the influence of Bronfenbrenner's *microsystem*. *Journey to find the lost*

self, *finding your place to thrive*, and *getting back in the game* was emblematic of this integrated model as well as Schlossberg's original transitions model.

As a reminder, confirming this transitional process was not the basis or unit of analysis for this study. The importance of understanding sport's role on the transitional process rests upon finding that there was, indeed, a consistent transitional process experienced by the participants as explained by the extant literature. However, the major contribution of this study was in the examination of sport's role during this transition process because it expands the boundary condition that sport is optimally used for developmental purposes only at the youth stage and that development cannot be singularly attached to positive outcomes. With the inclusion of sport participation as a discrete context, the distinctiveness of this study manifests itself. Understanding sport's influence provides new insight on reasons people choose sport in adulthood and may provide additional perspectives on what motivates people to choose certain activities in the adaptation process. Furthermore, it critically illuminates the importance of accessibility and availability of this sport system to all people, since transitions are part of everyone's developmental process. This study's participants were well educated, affluent, and mostly white, which describes a population that may be more endowed to access sport, particularly in adulthood when availability of sport is relatively more difficult than youth and adolescent stages. Promoting, managing, and designing a sport system that is prepared for adults in transitions elucidates, then, the types of essential components sport should embody. Salubrious social support and interaction, self-efficacy promotion, and vigorous, but enjoyable, physical activity were just some of the resources people

expressed as valuable components accessed through sport. A conceptual model is described in Figure 6 that highlights the transitional processes experienced by the participants and how sport impacted this process. From this model, design inputs could then be researched that optimize sport as a resource provider.

Toward an Understanding of Sport as a Multi-System of Development

Schlossberg's original transitions model and subsequent updates (cf., Anderson, Goodman, & Schlossberg, 2012) articulated how individuals cope with transitions at the

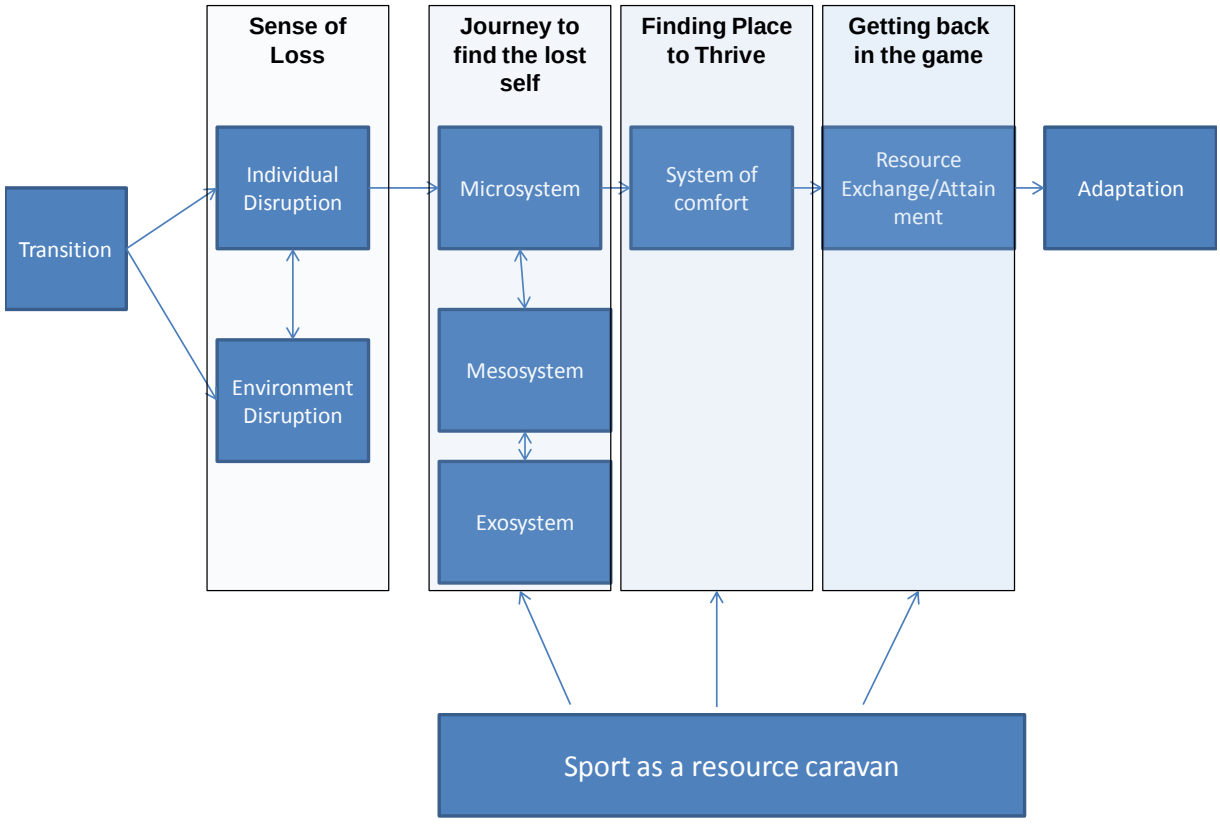


Figure 6: Transitional Process and Sport's Role

micro-level, or *microsystem.* I have provided an interpretation of this process at the *microsystem* where the individuals are at the forefront of this phenomenon. While in agreement, this study's exploration of sport's impact on this *microsystem* has illuminated a much broader viewpoint on how participants in this study navigated transitions across their life. The last theme, *sport as a resource caravan*, described a system that was more indicative of the *meso* and/or *exosystem* as described by Bronfenbrenner. Sport was a setting or context where a system of *microsystems* were present that facilitated an exchange of unique resources that were not easily re-created at the individual's *microsystem* level. Thus, they searched outward and many decided sport was a sufficient setting beyond the individual level that outperformed other supplements.

The finding of this difficulty to re-create the unique, multiplicative abilities of the sport setting in other aspects of a person's life, particularly at the *microsystem*, is another contribution of this study. Sport offered an idiosyncratic system rich in resources that could be tapped in order to balance out resource deficits attained via the transitional process. Most of the participants' transitions that were reported were negative in nature in which some degree of loss was experienced. The final laundry list of excerpts in the results section under the *sport as a resource caravan* theme was purposely designed to showcase that these subjects believed that actively engaging in sport or trying to re-create a sport-like system would help them obtain various resources. *They believed sport did this for them and thus, sought sport out.* Resources included social, psychological, physiological, emotional, and physical forms subjects contemplated were appropriate supplements to their losses. The sport system was a *caravan* of resources people could

locate and was specifically chosen. Some did attain it at the *microsystem*, like yoga, running, and biking to name a few. However, most people needed to *journey* beyond individual sport participation because they found resources plentiful at higher systems that had interpersonal relational exchanges. Relational exchanges that rendered resource provisions served people instrumentally as well as symbolically, just as Hobfoll had described. People could be defined via the resources they attained, helping them find their own social role identity and self-worth, important in returning their psycho-social self to equilibrium and initiating adaptation. This was difficult to realize only at the *microsystem*, especially when many transitions occurred commonly during the 25-45 year old period. Most participants endured their most conflict with transitions during this age. Coincidentally, this was the time when sport participation was at its lowest importance, according to the life chart in Figure 4. This raises important questions that remain unanswered: although people gave up sport more frequently during the 25-45 year old age range because they believed they had to in order to deal with many difficult transitions, did this actually benefit them developmentally? In other words, if they would have continued to play sport, would they have received some advantageous resources to overcome the transitions they were experiencing? Is sport designed and promoted appropriately for adults to see the value of choosing sport during a period where transitions are abundant? Direct answers to these questions are beyond the scope of this inquiry and future research should investigate these questions and similar others.

Based on the findings, a plausible claim could be contemplated that sport is distinctive through the difficulty of replicating it in the form of many *microsystems*.

Remember, *microsystems* are where a person develops through a complex setting of relations between the person and the immediate setting or environment containing that person (Brofenbrenner, 1977). The *setting* is a place with specific physical features where people engage in prolonged, ritualized activities with socially defined roles (Brofenbrenner, 1977). A *mesosystem* is essentially a system of *microsystems* that links two or more settings together including the processes occurring within them (Brofenbrenner, 1977). Further, the *exosystem* links processes happening between two or more settings where at least one of which does not include the person (Brofenbrenner, 1977). So, sport not only acts as a *mesosystem* that can bring together other people in an environment where roles and ritualized activities are apparent, sport also has the ability to create an *exosystem* that expands and influences other people (like spectators/fans or even sisters or mothers of a sport participant). A participant not only can tap into the resources directly, but also the distal relationships as part of the *exosystem*. In addition, there are *macrosystems* that make it a high priority to impact the delivery and design of sport to optimize the processes within these systems, like governmental agencies that oversee sport in Canada and Australia. De Bosscher et al. (2006) advanced an ecological sport system containing determinants where policies influence the development of sport that extend from the micro-level to the meso-level, excluding the macro-level. However, this type of multi-tiered system is not well understood from the development *thru* sport paradigm (Shilbury et al., 2008).

Although not unique, this situation of an ability to be multi-systematic and multi-leveled is not easily duplicated, particularly from a human developmental viewpoint *in*

the stage of adulthood. School has this capacity, but most adults are finished with school during the beginning stages of adulthood. From an adult point-of-view, school would only be at the *mesosystem* and higher, assuming the adult has a school-aged child. Perhaps jobs and occupations have this ability, but the heterogeneity of this setting and its activity engagement makes this system limited in scope to the *exosystem*. In adulthood, there is a severe lack of an external system that could be multidimensional, increasing the inability for development to occur efficiently through resource attainment. But, as the evidence from this study shows, sport is believed to hold the capacity to be multidimensional, particularly in providing support mechanisms (e.g., *convoy of social support,* Kahn, 1975) that supply resources during a time where a person experiences deficits. This can be experienced directly by the adult at the *microsystem* but also as a third party in the *exosystem* and *mesosystems*. Moreover, sport has been shown the capacity to extend, at least in its importance, to the *macrosystem* where resources can be funneled to varying underlying systems. In this regard, sport may qualify as an optimal setting that could promote the stabilization of resources in the transition to adaptation scenario due to its reach over many systems where the focal person could be engaged. Further, this finding provides support for sport as a multi-system that is hard to imitate. A conceptual model that describes sport's ability to transcend over Brofenbrenner's ecological systems is in Figure 7.

Participants explained that sport helped reduce anxiety, increase self-confidence, provide important role identity, open and enhance social connections, and improve physical health. These are all included as important factors in which adaptation is

dependent on. The longer a person takes to adapt, the harder it is to continue to operate in a net gain capacity, as described in the life-course and life-span developmental paradigms. Seemingly, from this study and others (e.g., Langley & Knight, 1999; Dionigi, 2002, 2005, 2006), if sport is chosen as an adaptive technique to positively alter the transition to adaptation process for a continued period of time, does this not put a person in a better circumstance to operate in a net gain situation? And if you continue to have more net gains than net losses, does this not promote a positive developmental trajectory? If human development is influenced on many different systems and levels, does it not positively alter development if a strategy could transcend multiple systems? According to Baltes, Hobfoll, Schlossberg, Elder, and Bronfenbrenner, positive development seems to hinge on a person's ability to access systems in which resources can be attained to balance out losses experienced by change or transitions. This study highlights sport as a possible multi-tiered system optimal for resource attainment crucial for individuals needing to adapt from transitional events. From this perspective, this study may indicate sport as a favorable system that can be used for individual (and possibly environmental) developmental purposes, particularly for adults.

Practical Implications for Sport Management

Within sport management, sport development research has argued that the design, promotion, and provision of sport through its management is crucial for any benefit of participation to be attained (Chalip, 2006; Green, 2005). Benefits of participation are critical in the retention and recruitment of members into a sport system. One particular

construct of importance to managers is motivation to participate. In Green's (2005) examination of the sport development pyramid analogy, retaining sport participants hinged on the value people place on participation. Green referenced Rotter's (1954)

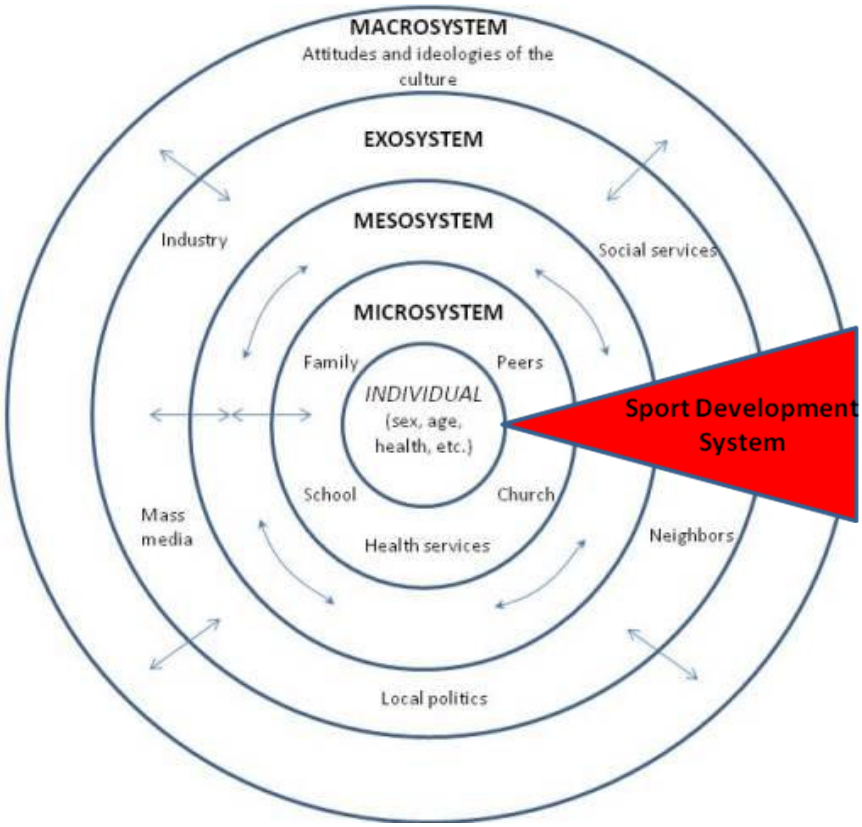


Figure 7: Sport as a Multi-System of Development

Social Learning Theory in explaining how people internalize and appraise benefits of participation. These "benefits and their value must be greater than those to be obtained from alternative activities." (Green, 2005, p. 239) Further, she argued that "we know very little about the nature of benefits people perceive in sport, how those benefits come to be valued, or how people come to perceive personal control (or lack of it) over these benefits." (Green, 2005, p. 239) And finally, she pointed out that much of the work in

this area of sport has assumed that an absence of a positive (i.e., benefit) translates into the perception of a negative value and vice-versa. This study offers some insight in which to build upon clarifying these issues for sport managers, especially in the non-normative area concerning the adulthood stage(s) of life. Adulthood should be considered a very lucrative and attractive market for continued sport participation if these issues can be addressed. These issues revolve around marketing, promotion, management, and providing equitable access and availability to adults.

First, sport development literature typically focuses on a system geared for youth and adolescents. From a human development viewpoint, the needs and the perceived benefits of youths/adolescents differ considerably than those of adults. This study indicated that the elongated stage(s) of adulthood contain abundant transitional events that people must navigate across the life span. This presents challenges to individuals seeking adaptation from transitions that may adversely affect a person's decision to participate in sport. Having children, getting married, pursuing a career are all normative and sometimes happening simultaneously during the 20-45 age range. Thus, people's perceptions of benefits to participate in sport must be greater or serve a complementary purpose to major, important life events that take considerable amount of time and have the ability to produce gigantic impacts on the perceived benefits (or detriments) of a person. Sport managers need to be cognizant of providing, marketing, and designing sport that meets the needs of adults in transitional phases during this time period to retain and/or recruit members. It simply may not be perceived as plausible to access in a time when multiple and major transitions are happening in a person's life. Adults know the

benefits, but the trend of adults participating in sport, especially team sport (i.e., *mesosystem*), is declining (Bowers, Chalip, & Green, 2010). This may be due because sport managers have not adapted the delivery of sport to meet the needs of adults.

The transitional process is a disruption to a person's ecological system, especially at the *microsystem*. Resources may be lost and people will search out replacement resources to compensate. This may include social, physical, emotional, and/or psychological resources. Promoting and designing a system or environment that can offer suitable resources in multiple ways would be valued highly to those adults in the transition process or have experienced previous transitions. Marketing to certain target segments that advertise ways people could benefit through comfortable social settings, physiological stress reduction, and improvements in self-confidence (to name a few) may be appropriate.

Finally, Green's insightful point that people make a normal assumption when assessing sport's value is if it generates direct benefits or decrements. This is a common assumption people make that misrepresents the value of sport. Again, sport can produce a gain and/or loss, and knowing that sport has this capacity should be encouraging in the sport development gestalt. The reason is that ultimately, development is not an outcome; it is a process that contains the interplay of gains and losses. Sport seems to emulate this phenomenon from this study's life-history perspective. Viewing the value of sport and its outcomes based on certain instances or experiences may be too parochial. As each outcome, taken independently, may not be an accurate illustration of the overall capacity of sport. Taken holistically across time, judging sport's value, and in particular its

developmental value, becomes more complete and takes into account the relation and proportion of gains and losses across our life.

One goal of sport development is to increase mass participation across our entire life. Instead of evaluating sport at a few instances in youth and adolescence, we should include the stages of adulthood to complete the picture. Returning to a longitudinal design, evaluations can be more objectively inferred if sport is *positively* developmental by measuring the amount and proportion of the gains relative to losses. This study showed that people who have experienced the ups and downs of sport understand this value more intrinsically and extrinsically as they become older with a retrospective viewpoint. The practical implication is to continue to offer sport in more accessible and available ways for adults, as environmental support structures wane after college. The availability and accessibility of sport programs is a major threat to the continuation of sport participation throughout our lifespan and should be examined more intently if sport managers are to offer programs that meet an aging population that experiences multiple transitions. Thus, the efficiency of resource transfer could be increased that may lead to a better ability to adapt to continued life transitions as we age. Creating a sport environment that amplifies the multi-system capabilities of sport and provides ways for efficient relational exchanges to transpire could elevate sport as a preferred activity over other alternatives. If this can be improved, sport may be a potentially effective, multi-dimensional tool and a preferred outlet for resource recruitment that positively alters the developmental trajectories as we age and helps improve quality of life.

Limitations

In retrospect, there are limitations to Study 1's research which add caution to any conclusions. First, the homogeneous sample concerning the demographical background and overall sport beliefs may affect the external validity and generalizability of the findings. This sample consisted mostly of white, affluent, and well educated people that may have had advantages in the availability and accessibility of sport activities, which may have impacted their beliefs about sport in a positive way. The results show that, overwhelmingly, this sample had positive interpretations about sport and what it provided them throughout their life. Thus, future research should investigate minority groups' opinions and beliefs about not only sport beliefs, but the types of transitions they may experience. Transitions were also fairly homogeneous in nature and this may be the result of the sample's similar backgrounds.

In addition, a retrospective self-report can induce positive bias toward the valuation of a person's life experience. People have a tendency to be the "hero" of their own life story. Thus, difficult transitions may not have been talked about in depth as the experience could have been painful. This study was more in alignment with a topical, biographical life-history, which did not dive deeper into certain phenomenon with multiple interviews. The time and resources limited this study in scheduling multiple interviews for several hours that is more consistent with a true life-history qualitative method. Research that can devote significant time in understanding certain transitions in depth may illuminate a better understanding of the transitional experience and sport's role on it. A phenomenological method could be used to ascertain transitions and its meaning

in a more robust way given the time to devote extensively to multiple, in-depth interviews. This was the main reason, along with a broad, exploratory approach, to refrain from a phenomenological method at this time.

Next, sport was loosely defined by the participants and the types of sport were broadly interpreted for their influence on people's transition experience. The accuracy of sport's definition and the type of sport may determine the value of sport more precisely. Do team sport or individual sport matter most? How many people involved in participating make an impact? Is there a critical mass of the amount of people that may lead to diminishing returns on the experience? Disentangling the nuances of sport's components is still needed to help create an optimal design.

Finally, a retrospective study is only one way to evaluate developmental processes over time. A more accurate method may involve a longitudinal study that follows a group cohort that can speak more currently about their feelings and thoughts concerning sport and transitions. Both qualitative and quantitative data would help clarify certain points in more rich detail using this type of approach.

To conclude Study 1, the results indicated that sport participation does interact positively with people's lives concerning a transitional event. Illuminating the multi-systematic ability of sport to provide resources in a time when resources tend to be lost is a significant contribution toward sport's evaluation. In addition, the insight gained from these results showed that adults do have a positive belief in sport participation's ability to assist them in times of change, which are often difficult. Further, in order to have a comprehensive discussion about sport for development, the adulthood stage of life should

not be neglected. Future research in the sport management discipline should focus an agenda that continues to provide clarity on the best way to provide, design, and manage sport's accessibility and availability to people all across the life course. The knowledge learned in the adulthood stage could lead toward improving program delivery that may continue to impact aging adults' quality of life and may even inform design possibilities for youth. As a result, an additional tool that people can use in their quest of a healthier life may be realized.

Chapter 5: Study 2 (Quantitative)

METHOD

Introduction

The insight gained in Study 1 helped to complement and inform Study 2's design along with the literature review. Thus far, participants believed sport to play a significant role in assisting them achieve adaptation from transitional events. Interviews with subjects delineated benefits obtained from sport participation to be heterogeneous and included, but not limited to, psychological, emotional, social, and physiological assets. However, drawing specific conclusions about a particular transition and how sport affected resources is difficult, but not unexpected. It was anticipated, via Study 1, to learn broadly about sport's function. Nevertheless, Study 1 helped form the impetus to discover and learn more intimately about sport and a specific transition's relationship. This assists in forming the foundation for designing Study 2.

Originally, the argument was made that quality of life is at best equivocal (and often, deleterious) when people reach late adulthood. One transition that normatively marks the beginning of late adulthood is retirement. Studies indicate the people who adequately adjust and are satisfied after the retirement transition are more likely to live in a state of higher well-being (van Solinge & Henkens, 2008). Resources that help the retirement transition process are strongly associated with retirement well-being as a reflection of retirement satisfaction and adjustment (Leung & Earl, 2012; Pinquart & Schindler, 2005; van Solinge & Henkens, 2008; Wang et al., 2011). This theoretical

proposition is in alignment with the life-course paradigm (Elder, 1994) in which transitions require a specification of the context in which the transitions occur, highlighting the saliency of resource access and other contextual factors (van Solinge & Henkens, 2008). From Study 1, I examined people's subjective recollection and predisposition toward sport in the transitional process, but I did not test for the magnitude and the effects of sport on resources in a particular transitional context. Study 2 attempted to do this with the assistance of Study 1's findings.

With this in mind, Study 2 examined people's beliefs and perceptions of sport participation's effect on the theorized resources important to retirement well-being. To be clear, this examination is not investigating *actual* resources, only the perceptions of resources or people's belief in adequate access to them. This is important to remain in alignment with Study 1 for the purposes of Study 2's design, which is investigating people's perceptions. Hence, a study was created to test a hypothesized model that suggests a person's perception of their sport participation in retirement positively affects necessary resources (in retirement), which positively predict two constructs that are known to be indicative of retirement well-being: retirement adjustment and retirement satisfaction (Leung & Earl, 2012). The hypothesized model is shown in Figure 7. (Please note that each construct will be further described in the instrumentation section).

However, a formidable debate in sport and the leisure disciplines questions this model's relationship. The debate centers around evidence that suggested sport (and leisure) participation not only provides benefits (or resources), but it also requires certain benefits (or resources) to participate (e.g., Kleiber et al., 2002).

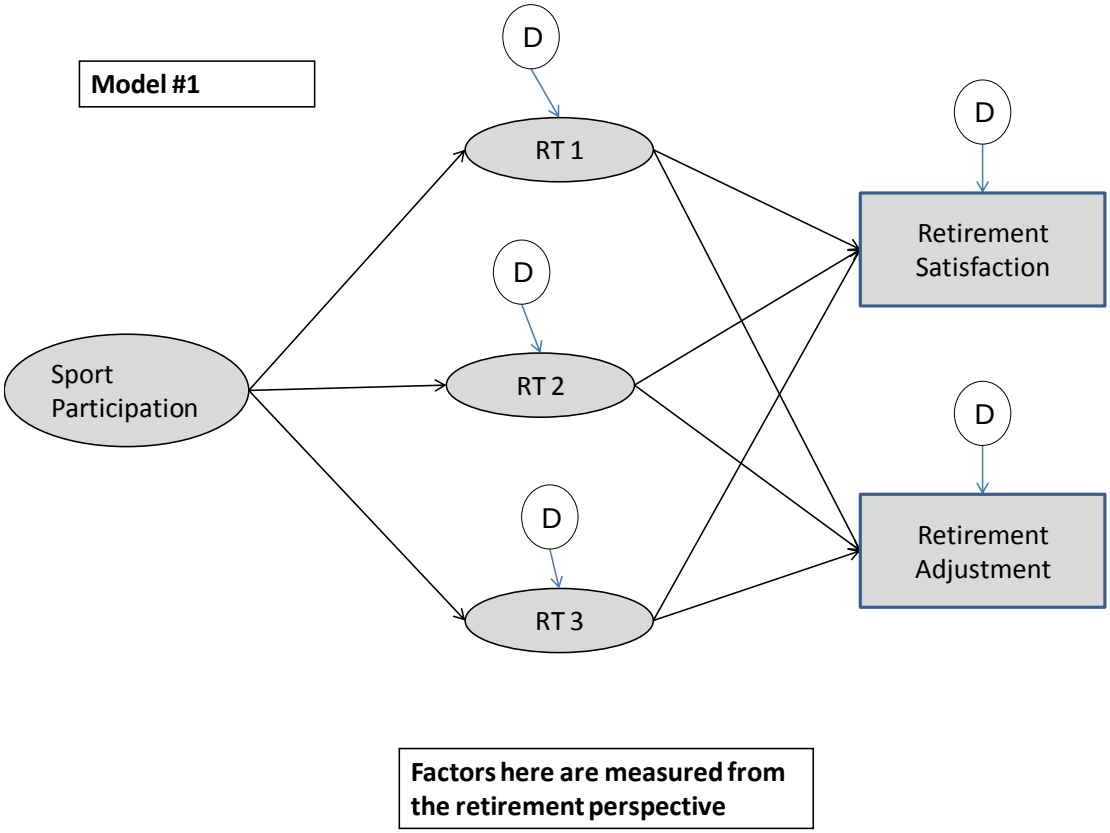


Figure 7: Hypothesized Model #1

For example, financial commitment for facility access, like a gym or sport club, may be needed to participate. Or, in late adulthood, physical health or competent skills may be necessary for motivation or optimism to play. In addition, if studying the retirement stage, one cannot discount or ignore cumulative effects of the developmental process occurring over the life-span (Baltes, 1987). Resources or perceptions of resources accumulated over one's life may have impacted how someone thinks, feels, and behaves in the present. Thus, providing dueling hypotheses that could compare and contrast findings from model 1 may add in clarifying the reciprocity relationship debate. Hence, an alternative hypothesis was generated that explains the relationships discussed above, with consideration to pre-retirement perceptions about sport participation will positively

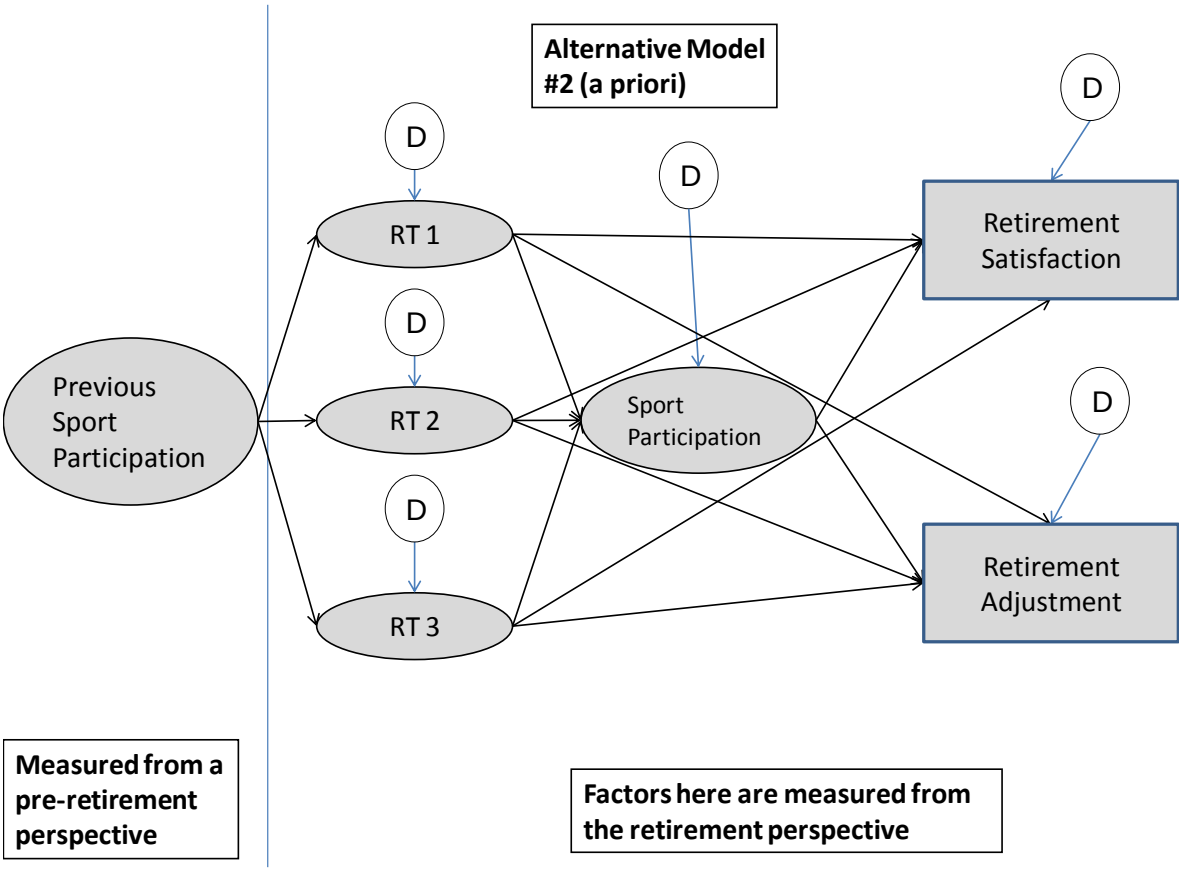


Figure 8: Hypothesized Model #2

impact salient resources influential in affecting perceptions of sport participation and retirement well-being. The model that contains these hypotheses is shown in Figure 8.

The strength of using SEM for data analysis allowed for the simultaneous testing of these two models to ascertain model fit to the data. In addition, SEM tests for the magnitudes of these hypothesized relationships and if any alternative relationships should be considered. The protocol of the study is articulated in the upcoming sub-sections.

Participants and Procedures

The main context for this study were two retirement community-dwellings for 55+ year old adults located near a large city in the Southwestern United States. The communities are restricted to adults 55 and older who were presumed to be affluent and fairly homogenous as far as age, education level, religious beliefs, and socio-economic status were concerned. This presumption was formulated after speaking with the site's administration. Participants 55-80 years old who have retired from the full-time workforce were sampled. At the sites, facilities for indoor activities, outdoor tennis courts, softball fields, and walking trails were prevalent making it conducive for regular sport and physical activity. In addition, the communities had a website, community newsletter, and mailing addresses that were used to promote the study and recruit participants. After running an *a priori* power analysis for structural equation modeling using the 10:1 ratio of sample to parameters as a minimum standard (Kline, 2011), 140 people were needed to detect a statistically significant result and adequately support the structural equation model's properties for both models. The power analysis was done by estimating the amount of information pieces and estimated parameters for models containing both observed and latent variables. Model two was more complex with 14 parameters and 2 latent variables. This will be explained further in the subsequent sections.

The entire population of the community dwellings were available for contact and sampling. Participants were recruited through the resources of the community's administration (e.g., website, newsletters, direct mail) and encouraged to volunteer for the

study. An online survey questionnaire was the primary mode of data collection. Paper surveys were made available through the administration of the sites. The administration agreed to promote the research and to help provide credibility for the project, considered to be favorable in increasing the rate of return. They produced a brief letter describing the biography of the researcher along with the study's significance and expectations.

Subjects volunteered themselves and were free to complete the online survey under their own cognizance. Only non-retired subjects were excluded from the study. To qualify for the survey, a potential participant had to answer the following screening question: Are you retired? Those individuals who said "yes" to the screening question were asked to read and sign an informed consent form before proceeding to the survey. A total of 14,000 people, presumably, were available to receive the email and paper surveys, according to the administration. Initially, 435 people responded to the survey. After reviewing the collected questionnaires, 38 completely missing data were deleted and 24 respondents were not retired. Thus, the final retained sample for further analysis consisted of 373 respondents. Due to various missing data on certain items/variables, the number of valid subjects (*N*) fluctuated. For the following descriptives information, 248 was the valid *N* after listwise deletion of missing data for the demographic variables. Males were slightly more represented than females (51.2% to 48.8%, respectively) and Caucasians were overwhelmingly the majority of the sample at 97.6%. Most people's relationship status was married at 77.8% with widowed (11.3%) and divorced (6.5%) next prevalent. 79.9% of the respondents were well educated with at least a 4-year college degree. The average age of the group was 71 and the average time in retirement

was just under 10 years (9.9). 69.8% recorded that they had a household income of $60,000 or more. Finally, 89.1% had at most 3 children and 90.3% had at most 7 grandchildren.

The online survey included a full description of the research study, informed consent, time requirements, risks associated with the study, the purpose of the study, demographic questions, and the main survey questions. Once the subjects finished the survey, a closing page from the survey thanked them for their participation. The entire survey was expected to take about 45 minutes to 1 hour per participant. The scores were transferred to an encrypted, pass-code protected computer into the statistical software of SPSS and then to *M*plus for structural equation modeling. Then, the data was prepared for analysis. Individuals were assigned an i.d. number to help maintain data confidentiality.

Instrumentation

Sport Participation Attitude and Involvement

For this study, it was deemed important to provide a sport measure that was comprehensive which included cognitive, affective, and behavioral components of sport. This helped tap into a person's attitudes as well as behaviors concerning sport participation in their life. In addition, the importance one places on being involved in sport, as opposed to alternative activities, was also considered vital. Concepts like attraction, centrality, and social bonding were some important constructs that shape sport involvement tendencies, while acknowledging a person's identity as a key driver of

affective and conative outcomes (Jun et al., 2012). Further, the big question from this study required an understanding of sport participation's relationship with resource attainment needed for adaptation to the retirement transition. These resources cover psychological, physical, and social components, and constructing a holistic measure that would presumably lead to these resources was critical in assessing their relationships. Hence, a measure that contained attitudinal (e.g, cognitive, affective, behavioral) and involvement (e.g., attraction, centrality, social bonding) items that was believed to have influence on these resources was used.

First, the attitudinal component was taken from Ragheb and Beard's (1982) instrument assessing leisure attitude. The Leisure Attitude Scale was developed to reflect the psychological and sociological aspects of leisure covering three dimensions: cognitive, affective, and behavior (Ragheb & Beard, 1982). This scale was also flexible in substituting the word leisure out for another specific leisure activity: sport participation (Ragheb & Beard, 1982). Thus, sport participation will be referenced when describing the rest of the scale. *Cognitive* was described as general knowledge and beliefs about sport participation, beliefs about sport's relation to other concepts such as health, happiness, and work, and beliefs about the qualities, virtues, characteristics, and benefits of sport (Ragheb & Beard, 1982). *Affective* was defined as an individual's evaluation of their sport experiences and activities, liking of those experiences and activities, and immediate and direct feelings toward sport experiences and activities (Ragheb & Beard, 1982). And finally, the *behavioral* aspect of this scale highlighted the individuals verbalized behavioral intentions toward sport choices and activities, and

reports of current and past participation. The scale had a total of 36 items (12 for each factor) with the following Cronbach's alpha reliability for the total and sub-scales: (1) total = .94, (2) cognitive = .91, (3) affective = .93, and (4) behavioral = .89 (Ragheb & Beard, 1982). For this study, 9 cognitive, 4 affective, and 3 behavioral items were retained for parsimony and due to adding involvement items to the affective and behavioral components. Ragheb and Beard (1982) reported both construct and concurrent validity and advised that this scale could be adapted to be used partially or *in toto* as long as reliability and validity scores were maintained.

Enduring involvement items were added to the affective and behavioral components of Ragheb and Beard's scale. This was done to include and to acknowledge the importance of identity as a key presumption of affective and conative outcomes typically associated with sport participation. Jun et al.'s (2012) Modified Involvement Scale (MIS) included three involvement components that drive the identity aspect: (1) attraction, (2) centrality, and (3) social bonding. Jun et al. (2012) described their conceptualization of identity as "the self is a primary motivator of behavior where identity is a set of meanings applied to the self in a social role or situation." (p.3) Jun et al. (2012) defined attraction, centrality and social bonding as follows:

> *attraction*-the importance individuals ascribe to an activity and the pleasure derived from the activity, *centrality*-the extent to which an individual organizes other dimensions of their lives around an activity, and *social bonding*-refers to the social ties that bind recreationists to a leisure activity. (p. 8)

Three items for *attraction*, two for *centrality* and three for *social bonding* were used by Jun et al. and adopted into this sport scale. Adequate reliability alphas were

reported by Jun et al. as the following: *attraction* = .86, *centrality* = .90, and *social bonding* = .69. Jun et al. also reported adequate model fit while conducting a confirmatory factor analysis to measure construct validity stemming from the items of *attraction, centrality,* and *social bonding.* The entire scale included a total of 24 items and is included in Appendix B, and they are all measured using a 5-point Likert scale from Strongly Disagree (1) to Strongly Agree (5). Furthermore, this scale was reproduced to measure pre-retirement sport participation attitudes as well as their attitudes in retirement. The "pre-retirement" sport participation attitude construct controls for the accumulation of attitude formation across the life span and it will be conceptualized as a predictor of "post-retirement" sport participation attitude via the resource construct. Due to the high correlation expected between the two because subjects are answering these questions at the same time, pre-retirement sport attitude will only be used in the second model. Resources will mediate the two sport constructs. *Retirement* was defined as the point at which you have stopped receiving wages and benefits from the full-time workforce. *Sport participation* was broadly defined as any physical activity that involved competition against others or with oneself. Examples included tennis, running, pickleball, golf, basketball, softball, softball, volleyball, hiking, biking, and/or bowling. The participants had the freedom to be flexible and was told that if they feel that physical activity was a sport, then it was such. It was assumed a priori that a total of three dimensions would make up the latent variable called *sport participation.* An exploratory factor analysis and confirmatory factor analysis was

performed to ascertain this assumption for factorial validity along with internal consistency reliability measures for the new scale.

Retirement Resource Inventory (RRI)

As explained earlier, the RRI was developed by Leung and Earl (2012) to test the predictive validity of resources on retirement adjustment (i.e., well-being) after accounting for demographic variables. In addition, they used an exploratory factor analysis to examine the list of six important resources to the adjustment as explained by Wang et al. (2011). They found that the overall RRI could be represented by a three-factor structure: *RT1* (emotional, cognitive, and motivational), *RT2* (social), and *RT3* (physical and financial). They reported that the RRI demonstrated sound psychometric properties and the three subscales displayed high internal consistency (.81-.89) and test-retest reliabilities (.83-.88) within a one-month interval (Leung & Earl, 2012). They also reported that their hierarchical multiple regression analysis supported their hypothesis that all three resource types predicted *retirement adjustment* and *satisfaction* constructs, making up *retirement well-being*. Both constructs of *retirement adjustment* and *satisfaction* were shown to be two distinct constructs in their exploratory factor analysis (Leung & Earl, 2012). Cross-lagged panel analysis confirmed a causal relationship between aggregate retirement resources (RRI) and *retirement well-being*. The entire 35-item self-report questionnaire that represents the RRI is included as Appendix C. Both reliability and factorial validity tests were conducted in this analysis.

Retirement Well-Being

Two distinct constructs were considered indicating *retirement well-being* in Leung and Earl's (2012) study: *retirement adjustment* and *retirement satisfaction.* These served as the outcome, observed variables in the hypothesized models. Leung and Earl assessed *retirement adjustment* with a 13-item measure reported in the Healthy Retirement Project (cf., De Vaus, Kendig, Quine, 2007; Quine, Wells, de Vaus, Kendig, 2007; Wells et al., 2006). One item, "I am restless," replaced another item, ""if married or partnered: I enjoy being able to spend more time with spouse/partner." This decision was made because not every participant could answer the latter question and was contingent on relationship status. After personal communication with the author of the scale (Wells, Y., personal communication, July 11, 2014), it was suggested that this substitution would not lead to any differences in reliability or construct validity. In fact. Dr. Wells reported that that the 13-item scale with the current edit had a reliability of .84 (Wells, Y., personal communication, July 11, 2014). Participants rated their level of agreement with each of the 13 statements using a five-point scale (1=strongly disagree, 5=strongly agree). The total questionnaire is listed in Appendix D. A composite adjustment score was calculated by summing ratings across the 13 items with possible scores ranging from 13-65 (De Vaus et al., 2007; Quine et al., 2007; Wells et al., 2006). Additional studies using this scale reported a high internal consistency reliability ranging from .81 to .88 (cf., Donaldson, Earl, & Muratore, 2010; Wong & Earl, 2009) and Leung and Earl reported an α=.89. Leung and Earl investigated *retirement satisfaction* using eleven items from the "satisfaction with life in retirement" section of the Retirement

Satisfaction Inventory (RSI) as issued by Floyd et al. (1992). Past studies (cf., Price & Balaswamy, 2009) reported a high internal consistency reliability valuation at α=.81; Leung and Earl reported an α=.66. The total questionnaire is listed in Appendix D. Following the direction of Leung and Earl, retirement adjustment and retirement satisfaction were used as observed, outcome variables with tests of internal consistency for each variable. Since related, they were correlated in the model.

Statistical Procedure

To analyze the data, structural equation modeling (SEM) was used. There are six basic steps that were followed conducting SEM: (1) *model specification*, (2) *model identification*, (3) *select measures, operationalize constructs,* and *conduct preliminary data analysis*, (4) *model estimation* and *model fit evaluation*, (5) *re-specify the model,* and (6) *report the results*. First, *model specification* refers to graphically representing your hypotheses in the form of a structural equation model that illustrates the relationships between variables. The main hypothesized model was presented earlier in Figure 7. Kline (2011) suggested that listing alternative models to conform to possible changes to the initial model justified by prior theory be done in advance. A graphic representation of an alternative *a priori* model was also presented in Figure 8 to address the debate on the sport and resources relationship. Next, *model identification* was conducted to estimate every model parameter. In this study, the models were determined to be over-identified, which means that the number of pieces of information exceeds that of the parameters to be estimated. The pieces of information for this model equals $p(p-1)/2$, where p is the

number of observed variables in the model. An over-identified model was preferred in this case due to the interest in testing model fit and possibly re-specifying the model to fit the data (Kline, 2011). Third, *measure selection, data collection* and *preliminary data analysis* were performed. Measures and constructs have been operationalized in the previous section. After data collection, the preliminary analysis included data preparation and screening, assumption evaluations, and missing data processing using listwise deletion (Kline, 2011). Fourth, *model estimation* determined how well the model explained the data (Kline, 2011). If the initial estimated model did not fit well with the data according to the SEM fit indices and overall chi-square test, then model re-specification using the *a priori* alternative model was initiated. A satisfactory model fit was achieved and parameter estimates were interpreted (Kline, 2011). Finally, equivalent models were considered (Kline, 2011). According to Kline, an equivalent model explains the data just as well as the preferred model but does so with a different configuration of the hypothesized variable relationships. Step 5 recognizes model re-specification if the fit of the initial model is poor or inadequate (Kline, 2011). I considered sport participation measure as a possible mediator between resources and retirement well-being to understand the relationships more clearly and is set up a priori as a dueling hypothesized model. As explained earlier, there has been considerable debate concerning sport both and resources relationship.

Data analysis was assisted using SPSS and *M*Plus software. A two-step analytic procedure was administered to rigorously assess both the measurement and structural model adequacy (Kline, 2011). The two-step protocol allows researchers to methodically

diagnose and isolate problems with model fit at the measurement and/or structural level (Kline, 2011). First, exploratory and/or confirmatory factor analysis and an internal consistency of reliability tests were run to examine the measures. Once adequate model fit was obtained, then evaluation of the structural fit commenced. Both measurement and structural models used the basic model test statistic, chi-square, for analysis. A chi-square value of 0 means that the fit of the data to the model is perfect (Kline, 2011). Generally speaking, a lower chi-square value means that the data fits the model better. Next, approximate fit indices and their respective threshold levels were reviewed. To measure model fit and compare models, several fit indices were used along with chi-square statistic: comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), standardized root mean residual (SRMR), Akaike information criteria (AIC), and Bayesian information criteria (BIC) (Hu & Bentler, 1999). Traditional cut-off criteria for assessing adequate model fit are: CFI>.90, TLI>.90, RMSEA<.05-.08 or confidence intervals (CI) straddling a .05-.08, SRMR<.05-.10 (Hair, Black, Babin, & Anderson, 2010; Hu & Bentler, 1999). AIC and BIC are useful when comparing models, and the better fitting model has lower AIC and BIC values (Kline, 2011). In addition, using these indices in combination, not independently, provides the best indication of model fit (Kline, 2011). Collectively, with the chi-square goodness-of-fit test, the indices provided support of the best fitting model to the data as hypothesized by theoretical support. Interpretation of parameter estimates was conducted once an adequate model was retained to understand the effect decomposition of the path diagram. This included direct effects, indirect effects, total effects, and total correlations

(Kline, 2011). Descriptive statistics were also conducted to check for outliers, assumptions of normality, and variable characteristics.

RESULTS

Measurement Model Assessment

Factor Analysis

Sport Participation Constructs. For both of the hypothesized sport constructs (pre- and post-retirement), it was expected that three dimensions of sport would consist of *Cognitive* (items 1-9), *Affective* (items 10-16), and *Behavior* (items 17-24) variables from the literature (cf., Jun et al., 2012; Ragheb & Beard, 1982). This structure was subjected to a confirmatory factor analysis (CFA) in *M*Plus using maximum likelihood (ML) estimation and internal consistency measures to test this expectation. First, the post-retirement sport construct (PtSport 1) yielded goodness-of-fit indices for a three dimensional model that revealed poor fit, $\chi^2_{(249)}$=1696.25 (p<.001), CFI=.820, TLI=.800, RMSEA=.151, and SRMR=.074. Due to this result, an exploratory factor analysis (EFA) was revisited to check for adequate item loadings and a three-dimensional hypothesized simple structure. This technique was done for both pre- and post-retirement sport constructs due to the expected similarities of model fit and factor loadings. An EFA conducted in SPSS did reveal a three factor simple structure using varimax rotation. However, some items did not load appropriately on one factor and loaded relatively high on all three factors (items 14, 15, and 16). It was determined to drop these factors from

the scale considering that these three items were taken from Jun et al.'s *attraction* component of their enduring involvement scale. *Attraction* was similar to the already cognitive and affective items used via Ragheb & Beard's scale, as *attraction* is the cognitive importance individuals attribute to an activity along with the pleasure it derives (Jun et al., 2012). Thus, it was determined that attraction was redundant and removed from consideration for this scale's development. In addition, items 7, 9, 22, 23, and 24 all loaded together well above the preferred, more stringent .6 high criteria loading in order to make factor loadings more discernible and minimize cross-loading possibilities (Costello & Osborne, 2006). These were similar in content and consisted of social bonding or interaction vernacular. For instance, item 7 was "Sport participation provided me with opportunities to socialize" and item 24 was "Participating in sport provided me with opportunities to be with my friends." Items 22-23 were originally from the *social bonding* component from Jun et al.'s scale, so it was deemed appropriate to group items 7, 9, 22-24 together, making up a "sport social involvement" factor. This factor is emblematic of the *social bonding* definition posited by Jun et al.: social ties that bind participants to an activity. In addition, items 1-6, 8, and 10-13 all loaded highly with one factor originally making up cognitive and affective measures. Thus, these items were grouped together and made up the new factor called "sport attitude," consistent with Ragheb and Beard's leisure attitude definition. Finally, items 17-21 were all originally under the behavioral component, but items 20 and 21 included the *centrality* element from Jun et al.'s involvement scale, which invokes behavioral actions as it describes how an individual organizes their lives around an activity (Jun et al., 2012). Thus, these items

were still grouped together but given the name "sport behavioral involvement," reflecting consistent behavioral items from both Ragheb and Beard and Jun et al.'s scales. A complete EFA for this first test is provided in Table 3 and 4 for both the pre- and post-retirement sport construct, showing the original factor loadings. One final EFA was run with the new listings and categorizations on the more parsimonious 21 item scale. This EFA showed three factors that indicated high loadings (>.6) for each item on the new terms, *sport attitude*, *sport behavioral involvement*, and *sport social involvement*. The final EFA is provided for both sport constructs in Table 5 and 6. All items in each dimension listed in Table 5 and 6 explained over 80% variance. The three factors produced eigenvalues over 1.000, respectively.

From the results of the final EFA, the three-dimensional factor of sport participation was then tested under CFA for improved model fit over the first initial model. PtSport 2a was the name of this model and yielded a statistically significant improvement in chi-square $\chi^2_{(186)}$=1035.03 utilizing the chi-square difference ($\chi^2\Delta$) of 662.22, p<.001. In addition, CFI=.871, TLI=.855, RMSEA=.134, SRMR=.061, AIC=9212, and BIC=9446 all were an improvement over the initial model (PtSport1). Although better, this model still did not pass goodness-of-fit cutoff criteria. Thus, a Lagrange Multiplier (LM) test was performed by viewing modification indices produced through *M*plus to add parameters for improved model fit. Along with the LM test, theory and conceptualization of the measure was strongly considered. Modification indices of the LM test suggested that items 1 with 2, 20 with 21, 7 with 9, and 3 with 4 covary their error terms to improve model fit. After reviewing the original Rahgeb and Beard and Jun

et al. scales, the decision to affirm the modification indices was made based on similarities between items. For example, item 7 read "Sport participation provided me with opportunities to socialize" and item 9 read "Sport participation was an important source of friendships." These were under the *sport social involvement* dimension and made conceptual sense. It is important to note that many modifications indices were suggested for model improvement, but only an assessment that made theoretical and conceptual sense was considered appropriate in the final decision. Cross-loadings of error terms was not considered, as this is typically appropriate when time is variant (Kline, 2011). Model PtSport 2b was run again and yielded a statistically significant improvement in chi-square ($\chi^2_{(182)}$=732.68) with a $\chi^2\Delta$= 302.35 p<.001 and lower AIC= 8918 and BIC=9166 values. In addition, adequate fit was obtained in CFI=.916, TLI=.904, SRMR=.060, but fell just outside the acceptable range for RMSEA =.109. Since three out of the four fit indices were met, the decision was made to retain this model for 2nd order model testing.

A hierarchical (2nd order) model was assessed that included three latent factors of *sport attitude, sport social involvement,* and *sport behavioral involvement* reflective of the higher order latent factor called *Sport Participation Importance (SPI).* The final model yielded the exact same model indices as model 2. This procedure was done to insure that the three latent first order factors do indeed fit to a higher order latent factor so that the first order factors could be transformed into observed variables by taking the means of the items. This was done for a simpler model at the structural level. The same procedure was conducted for the pre-retirement sport construct, and the results of this

final model along with the aforementioned models are in Table 7. To conclude, *SPI* is a new latent factor that encompasses cognitive, affective, behavioral, and enduring involvement items that are reflected by three observed variables: *sport attitude*, *sport social involvement*, and *sport behavioral involvement.* This was done in order to provide a comprehensive scale that incorporates the beliefs, perceptions, and attitudes of subjects toward their sport participation before and after the retirement transition. Hence, *Sport Participation Importance* is defined as the value or significance people place on sport via cognitive, affective, and behavioral elements.

After taking the mean for each new latent scale, internal consistency was checked and rendered the following acceptable Cronbach's alphas (Nunnally, 1978): *overall (21 items)* = .971, *sport attitude (11 items)*= .970, *sport social involvement (5 items)*=.950, and *sport behavioral involvement (5 items)*=.920. Descriptive statistics and assessments of normality were conducted on the new scales and are listed in Table 10 at the end of this section. A conceptual model of this structure is listed in Figure 9 with final factor loadings from the CFA in Table 8.

Table 3: Factor Loadings for Exploratory Factor Analysis With Varimax Rotation of Initial Sport Participation (SP) Scale (pre-retirement sport)

(Items)Scale	Cognitive	Affective	Behavior
Cognitive			
(1) SP contributed to my health	**.829**	.301	.216
(2) SP contributed to my happiness	**.788**	.292	.334
(3) SP increased my work productivity	**.757**	.229	.197
(4) SP renewed my energy	**.840**	.270	.197
(5) SP was a means of self improvement	**.767**	.317	.153
(6) SP helped me to relax	**.769**	.184	.326
(7) SP provided me with opportunities to socialize	.464	.113	**.752**
(8) SP was an important part of my life	**.667**	.545	.306
(9) SP was an important source of friendships	.382	.299	**.786**
Affective			
(10) My SP gave me pleasure	**.695**	.325	.428
(11) I valued my SP	**.759**	.385	.325
(12) I felt that SP was good for me	**.812**	.341	.215
(13) I felt that it was appropriate to participate in sport frequently	**.717**	.488	.220
(14) SP was one of the most enjoyable things I did*	.588	.490	.439
(15) SP was very important to me*	.630	.607	.324
(16) SP was one of the most satisfying things I do*	.629	.562	.316
Behavioral			
(17) I participated in sport frequently	.536	**.686**	.275
(18) I spent considerable time and effort to be competent in sport	.416	**.755**	.323
(19) I played sport even when I was busy	.415	**.748**	.237
(20) A lot of my life was organized around sport	.294	**.802**	.378
(21) Sport occupied a central role in my life	.314	**.814**	.349
(22) I enjoyed discussing sport with my friends	.275	.517	**.606**
(23) Most of my friends were in some way connected with sport	.143	.467	**.710**
(24) Participating in sport provided me with opportunities to be with my friends	.205	.348	**.846**

Note: Factor loadings that loaded on a common factor and are above .6 are in boldface. *denotes factors dropped due to loadings on multiple factors

Table 4: Factor Loadings for Exploratory Factor Analysis With Varimax Rotation of Initial Sport Participation (SP) Scale (post-retirement sport)

(Items)Scale	Cognitive	Affective	Behavior
Cognitive			
(1) SP contributed to my health	**.823**	.353	.152
(2) SP contributed to my happiness	**.815**	.387	.239
(3) SP increased my work productivity	**.825**	.223	.171
(4) SP renewed my energy	**.833**	.182	.257
(5) SP was a means of self improvement	**.813**	.147	.192
(6) SP helped me to relax	**.769**	.240	.311
(7) SP provided me with opportunities to socialize	.480	.172	**.746**
(8) SP was an important part of my life	**.663**	.516	.347
(9) SP was an important source of friendships	.387	.237	**.791**
Affective			
(10) My SP gave me pleasure	**.730**	.348	.431
(11) I valued my SP	**.707**	.504	.301
(12) I felt that SP was good for me	**.772**	.398	.200
(13) I felt that it was appropriate to participate in sport frequently	**.726**	.456	.139
(14) SP was one of the most enjoyable things I did*	.541	.604	.397
(15) SP was very important to me*	.617	.636	.279
(16) SP was one of the most satisfying things I do*	.533	.622	.352
Behavioral			
(17) I participated in sport frequently	.537	**.680**	.281
(18) I spent considerable time and effort to be competent in sport	.421	**.716**	.342
(19) I played sport even when I was busy	.400	**.680**	.345
(20) A lot of my life was organized around sport	.276	**.791**	.402
(21) Sport occupied a central role in my life	.267	**.834**	.298
(22) I enjoyed discussing sport with my friends	.197	.488	**.663**
(23) Most of my friends were in some way connected with sport	.060	.508	**.716**
(24) Participating in sport provided me with opportunities to be with my friends	.220	.351	**.822**

Note: Factor loadings that loaded on a common factor and are above .6 are in boldface. *denotes factors dropped due to loadings on multiple factors

Table 5: Final Retained Scale (Sport Participation Importance[SPI]) With Three Factors and Loadings for Exploratory Factor Analysis With Varimax Rotation (pre-retirement sport)

(Items)Scale	Attitude	Behavioral Involvement	Social Involvement
Sport Attitude (Cog/Affective)			
(1) SP contributed to my health	**.835**	.294	.221
(2) SP contributed to my happiness	**.791**	.280	.337
(3) SP increased my work productivity	**.763**	.234	.193
(4) SP renewed my energy	**.845**	.268	.197
(5) SP was a means of self improvement	**.774**	.319	.150
(6) SP helped me to relax	**.770**	.179	.325
(8) SP was an important part of my life	**.673**	.525	.314
(10) My SP gave me pleasure	**.696**	.302	.437
(11) I valued my SP	**.762**	.361	.336
(12) I felt that SP was good for me	**.817**	.325	.223
(13) I felt that it was appropriate to participate in sport frequently	**.722**	.465	.230
Sport Behavioral Involvement			
(17) I participated in sport frequently	.549	**.679**	.278
(18) I spent considerable time and effort to be competent in sport	.429	**.753**	.321
(19) I played sport even when I was busy	.430	**.747**	.238
(20) A lot of my life was organized around sport	.308	**.809**	.372
(21) Sport occupied a central role in my life	.327	**.815**	.345
Sport Social Involvement			
(7) SP provided me with opportunities to socialize	.463	.110	**.755**
(9) SP was an important source of friendships	.380	.287	**.792**
(22) I enjoyed discussing sport with my friends	.280	.518	**.604**
(23) Most of my friends were in some way connected with sport	.148	.477	**.704**
(24) Participating in sport provided me with opportunities to be with my friends	.206	.351	**.845**

Note: Factor loadings that loaded on a common factor and are above .6 are in boldface.

Table 6: Final Retained Scale (Sport Participation Involvement [SPI]) With Three Factors and Loadings for Exploratory Factor Analysis With Varimax Rotation (post-retirement sport)

(Items)Scale	Attitude	Behavioral Involvement	Social Involvement
Sport Attitude (Cog/Affective)			
(1) SP contributed to my health	**.835**	.329	.158
(2) SP contributed to my happiness	**.827**	.351	.250
(3) SP increased my work productivity	**.830**	.200	.174
(4) SP renewed my energy	**.837**	.173	.253
(5) SP was a means of self improvement	**.816**	.135	.191
(6) SP helped me to relax	**.774**	.219	.313
(8) SP was an important part of my life	**.679**	.469	.364
(10) My SP gave me pleasure	**.738**	.298	.449
(11) I valued my SP	**.727**	.467	.313
(12) I felt that SP was good for me	**.785**	.367	.209
(13) I felt that it was appropriate to participate in sport frequently	**.742**	.439	.141
Sport Behavioral Involvement			
(17) I participated in sport frequently	.562	**.664**	.285
(18) I spent considerable time and effort to be competent in sport	.446	**.712**	.337
(19) I played sport even when I was busy	.424	**.702**	.329
(20) A lot of my life was organized around sport	.304	**.791**	.395
(21) Sport occupied a central role in my life	.298	**.832**	.292
Sport Social Involvement			
(7) SP provided me with opportunities to socialize	.477	.161	**.753**
(9) SP was an important source of friendships	.387	.210	**.805**
(22) I enjoyed discussing sport with my friends	.208	.504	**.651**
(23) Most of my friends were in some way connected with sport	.071	.515	**.710**
(24) Participating in sport provided me with opportunities to be with my friends	.223	.360	**.817**

Note: Factor loadings that loaded on a common factor and are above .6 are in boldface.

Table 7: Fit Indices for Confirmatory Factor Analysis Models

Model	χ^2	df	CFI	TLI	RMSEA*(CI)*	SRMR	$\chi^2\Delta$	AIC	BIC
PtSport 1	1697.25	249	.820	.800	.151*(.14,.16)*	.074	-	10692	10957
PtSport 2a	1035.03	186	.871	.855	.134*(.13,.14)*	.061	662.22	9212	9446
PtSport 2b	732.68	182	.916	.904	.109*(.10,.12)*	.060	302.35	8918	9166
FinalPtSport*	732.68	182	.916	.904	.109*(.10,.12)*	.060	-	8918	9166
FinalPrSport*	716.64	182	.927	.916	.101*(.09,.11)*	.054	-	11354	11610

Note: AIC, BIC, and $\chi^2\Delta$ are used to compare competing models. Lower AIC and BIC values equate to a better fitting model comparatively. *Denotes 2nd order CFA model. CI=confidence interval, PtSport=Post-retirement sport, PrSport=Pre-retirement sport.

Table 8: Maximum Likelihood Parameter Estimates for a 2nd Order Factor Model of SPI

Factor Loadings	Unstandardized	*SE*	Standardized	*SE*
Sport Attitude				
Item 1[a]	1.000	-	.877	.016
Item 2	1.061	.033	.923	.011
Item 3	1.042	.061	.802	.023
Item 4	1.021	.057	.826	.021
Item 5	.965	.061	.770	.027
Item 6	1.019	.056	.830	.020
Item 8	1.315	.063	.890	.014
Item 10	1.201	.056	.904	.013
Item 11	1.214	.054	.922	.011
Item 12	1.022	.049	.888	.014
Item 13	.997	.053	.844	.019
Sport Behavioral Involvement				
Item 17[a]	1.000	-	.905	.014
Item 18	1.029	.045	.909	.013
Item 19	.983	.046	.877	.016
Item 20	1.062	.052	.869	.018
Item 21	1.033	.054	.840	.020
Sport Social Involvement				
Item 7[a]	1.000	-	.772	.029
Item 9	1.202	.058	.814	.025
Item 22	1.311	.096	.825	.024
Item 23	1.334	.097	.838	.022
Item 24	1.441	.091	.902	.017
Sport Participation Importance				
Sport Attitude[a]	1.000	-	.897	.015
Sport Behav. Involvement	1.618	.104	.957	.007
Sport Social Involvement	.921	.092	.778	.037
Correlated Error Terms				
Item 1 with Item 2	.057	.009	.517	.052
Item 3 with Item 4	.125	.019	.510	.049
Item 7 with Item 9	.198	.032	.548	.050
Item 20 with Item 21	.269	.038	.640	.041

Note: All values are statistically significant at the $p<.001$ level. All R^2 values for items and latent variables are >.5, $p<.001$.

[a]Not tested for statistical significance, constrained to 1.000 for model identification.

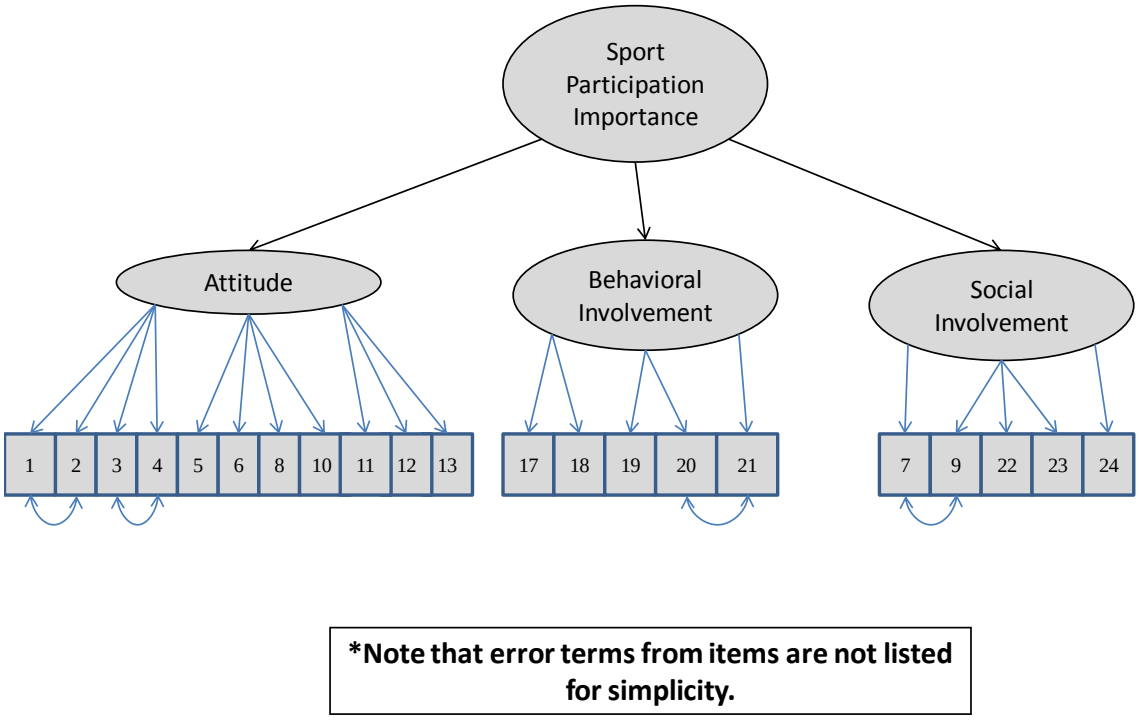


Figure 9: Final 2nd Order Model of (Pre-) Post-Retirement Sport Participation Importance (SPI)

Retirement Resources Inventory (RRI). Leung and Earl (2012)'s study showed support for a three dimensional structure for the RRI: RT1, RT2, and RT3. 35 total items reflected the RRI among the three dimensions. Due to this empirical evidence, each of the factor dimensions were subjected to CFA to test model fit using ML estimation. RT3 loaded items 1–8, RT2 loaded items 9–17, and RT1 loaded items 18–35 according to Leung and Earl's previous EFA. Each factor yielded poorly fitting models to the data according to chi-square statistic and goodness-of-fit indices, listed in Table 9. Due to this result, the three factors were revisited using an EFA to recheck the dimensionality of the 35 item scale. Originally, Wang et al. (2011) and Wang and

Schultz (2010) theorized that retirement resources consisted of six dimensions covering emotional, cognitive, motivational, social, physical, and financial resources. So, the dimensionality of resources could still be further examined using an EFA in this study. After completing the EFA, 10 factors emerged, contradicting the extant literature on the dimensionality of retirement resources and the RRI. The table that shows the 10 factor structure and its loadings are located as a reference in Appendix F. Because of this finding, a decision was made to use the RRI and the 35 item scale as one observed variable, instead of the hypothesized three factors as directed by Leung and Earl (2012). It is beyond the scope of this dissertation to ascertain the dimensionality of the RRI. Furthermore, this study's main question does not necessarily investigate the relationships between the espoused underlying dimensions of resources. The main impetus is to understand if sport participation in retirement can affect broad resources that lead to retirement well-being. In Leung and Earl's study, they advanced strong evidence to suggest that the RRI does in fact have high predictive validity to retirement well-being (viz., retirement satisfaction and retirement adjustment). In their sequential regression analysis, they used the three resource structure as observed variables. Therefore, the decision was made on theoretical and empirical grounds to treat resources as one observed variable in the models espoused earlier. This observed variable will be referred to as the Retirement Resource Inventory (RRI) as it captures items that cover a broad range of resources that have been demonstrated to predict retirement well-being. Internal consistency was checked for the RRI variable and the psychometric property was deemed

stable and reliable with an alpha of .879. The assumption of normality was not violated with skewness at -.42 and kurtosis at .85 (Kline 2011).

Retirement Well-Being. Retirement adjustment and retirement satisfaction were intended to be analyzed as observed outcome variables in the structural model in alignment with Leung and Earl's previous study. Again, the dimensionality of both of these constructs was not the basis for this dissertation. Both constructs have been researched and reported with high reliability and construct validity (e.g., Leung & Earl, 2012, Floyd et al., 1992; Wells et al., 2006) Construct validity showed that both adjustment and satisfaction were similar but two distinct variables (Leung & Earl, 2012). Thus, the scores for the scales were summed and the means were taken to convert into two observed variables labeled as retirement satisfaction (RSATIS) and retirement adjustment (RADJ). Reliability tests were run and deemed acceptable using Nunnally's (1978) >.7 threshold for alpha acceptability. Retirement satisfaction had an alpha of .738 and retirement adjustment had an alpha of .831. For a full description of all of the variables psychometric properties, refer to table 10.

Table 9: Fit Indices for CFA Models (RT1, RT2, RT3)

Model	χ^2	df	CFI	TLI	RMSEA*(CI)*	SRMR
RT1	719.21	135	.689	.648	.127*(.12,.14)*	.084
RT2	279.52	27	.742	.657	.186*(.17,.21)*	.086
RT3	188.80	20	.745	.643	.177*(.15,.20)*	.125

Note: CI=Confidence Interval. (*n*=270)

Table 10: Descriptives and Psychometric Properties of Observed Variables

Variable	*n*	*M*	*SD*	α	Skewness	Kurtosis
Pre Sport Attitude	288	4.01	.852	.969	-1.11	1.49
Pre Sport Behav Involv.	288	3.15	1.17	.957	-.15	-.96
Pre Sport Social Involv.	288	3.39	1.01	.921	-.412	-.40
Post Sport Attitude	255	4.21	.743	.970	-1.31	2.53
Post Sport Behav Involv.	255	3.43	1.09	.950	-.52	-.39
Post Sport Social Involv.	255	3.60	.944	.920	-.57	-.23
Resource Inventory (RRI)	270	3.68	.354	.879	-.42	.85
Ret. Satisfaction (RSATIS)	257	5.98	.552	.738	-.53	.15
Ret. Adjustment (RADJ)	264	3.90	.331	.831	-.53	.74

Note: Differences in sample size are due to the variation of missing data. Missing data was handled using listwise deletion. α=Cronbach's alpha of reliability with >.7 as acceptable. Skewness is acceptable with values <|3| and kurtosis acceptable values are <|10| (Kline, 2011).

Structural Model Assessment

After completing the first step of assessing and preparing the measurement model(s), all variables, both latent and observed, were considered stable and well fitting to proceed in examining the hypothesized structural models. Hypothesized model 1 (StrModel 1) and model 2 (StrModel 2) were run using *M*plus under maximum likelihood estimation. Model 1 had the following fit indices: $\chi^2_{(8)}$=43.62 (p<.001), CFI=.949, TLI=.904, RMSEA=.128, and SRMR=.095, which would suggest close, but not adequate, model fit. Model 2 had the following fit indices: $\chi^2_{(25)}$=382.00 (p<.001), CFI=.767, TLI=.664, RMSEA=.223, and SRMR=.215, confirming extremely poor model fit. Since model 1 is nested in model 2, a chi-square difference test was performed to

understand if they are statistically significantly different. The chi-square difference was $\chi^2_{(17)}\Delta$= 338.38, p<.001, suggesting that model 1 is a much better, statistically significant fitting model comparatively. Hence, model 2 was rejected as a possible model fitting this study's data.

Since model 1 had very close goodness-of-fit indices, the LM test was performed to ascertain if the fit of the model could be improved. Modification indices suggested that adding two parameters from the SPI construct as direct effects on retirement satisfaction and retirement adjustment. Theory and literature was consulted to check for theoretical sensibility in adding these two paths. Although a paucity of research exists that explicitly explains the relationship of sport participation to retirement well-being, many studies suggest positive relationships between leisure activities and both retirement satisfaction (e.g., Bevil, O'Connor, & Mattoon; Floyd et al., 1992) and retirement adjustment outcomes (e.g., Fly, Reinhart, & Hamby, 1981; Dorfman & Douglas, 2005). Sport participation is widely considered a form of leisure activity. With this evidence along with the LM test, an alternative model (model 3) was considered for further analysis that added two direct effects from SPI to retirement satisfaction and retirement adjustment.

Model 3's statistics were the following: $\chi^2_{(6)}$=19.230 (p<.0038), CFI=.981, TLI=.952, RMSEA=.090, SRMR=.031. In addition, a $\chi^2_{(2)}\Delta$ test between models 1 and 3 was performed that reported a statistic of 24.39, p<.001. Finally, the AIC and BIC values were compared to be lower in model 3 than in model 1. Thus, using these tests, model 3 suggested a well-fitting model that is statistically significantly better than model 1.

Therefore, model 3 was retained and parameter estimates along with effect decomposition of the model was performed for further interpretation.

Table 11: Fit Indices for Structural Model Comparisons

Model	χ^2	df	CFI	TLI	RMSEA*(CI)*	SRMR	$\chi^2\Delta$	AIC	BIC
StrModel 1	43.62	8	.949	.904	.128 *(.093,.167)*	.095	338.38	2445	2514
StrModel 2	382.00	25	.767	.664	.223*(.203,.243)*	.215	-	4401	4508
FinalModel 3	19.230	6	.981	.952	.090 *(.047,.137)*	.031	24.39	2425	2500

Note: AIC, BIC, and $\chi^2\Delta$ are used to compare competing models and lower amounts equates to better fitting model. StrModel=structural model, CI=confidence interval. (*n*=270)

Model 3 Parameter Estimation. Model 3's correlations, correlation residuals, and proportion of explained variance (R^2) is summarized in Table 12. The correlations between observed variables show discriminant validity with all correlations lower than .55. Discriminant validity is shows low correlations between constructs, indicating that they are not related. The correlations also show that retirement satisfaction and adjustment are moderately correlated at .529, which was expected as they collectively indicate retirement well-being and were allowed to covary a priori. Convergent validity is shown in the three observed variables for the latent construct, *Sport Participation Importance,* with correlations ranging from .67 - .78. Convergent validity shows items or variables that are supposed to be related and therefore, should have higher correlations with one another. Demonstrating both convergent validity and discriminant validity is indicative of construct validity (Kline, 2011). R^2 is an indication of predictive validity, explaining fairly high predictive validity of retirement satisfaction and adjustment, but

weak predictive validity in resources (RRI) from the sport construct. Two ways to judge construct quality is evaluating its (1) average variance extracted (AVE) from the measured variables and (2) construct reliability. AVE is generally recommended that a latent factor account for at least 50% of the variance in the original observed variables (Hair et al., 2006)). *Sport Participation Importance* accounted for .745 of AVE, or 74.5%. Construct reliability is recommended to be at least .70 (Hair et al., 2006) and in this case, SPI had a construct reliability of .897. All statistics were statistically significant and individual *p* values are reported in Table 12. Finally, correlation residuals

Table 12: Correlations and Correlation Residuals for Final Model of Observed Variables with Standard Deviations (*SD*) and Explained Variances (R^2)

Variable	1	2	3	4	5	6
Correlations						
1. RSATIS	1					
2. RADJ	.529**	1				
3. RRI	.470**	.471**	1			
4. Sport Attitude	.423**	.291**	.336**	1		
5. Sport Behav. Involv.	.347**	.250**	.221**	.781**	1	
6. Sport Social Involv.	.288**	.180**	.233**	.669**	.769**	1
Correlation residuals						
1. RSATIS	0					
2. RADJ	0	0				
3. RRI	0	0	0			
4. Sport Attitude	.036	.022	.025	0		
5. Sport Behav. Involv.	-.013	-.003	-.014	-.002	0	
6. Sport Social Involv.	-.020	-.025	-.001	-.010	.008	0
SD	.555	.525	.346	.744	1.09	.946
R^2	.305***	.246***	.080*	.704***	.871***	.662***

Note: The correlations and *SD* were computed using SPSS. The correlation residuals and R^2 were computed by *M*plus. ***p<.001, **p<.01, *p<.05. Correlation residuals >.10 are cause for model mis-specification (Kline, 2011).

provide further evidence that the model is not mis-specified if the chi-square test produces a failed, significant result, as was the case here. Correlation residuals over .10 signify problems with model fit and specification issues (Kline, 2011). All residuals were below .10 suggesting that the model is correctly specified, along with fit indices.

Parameter estimates in the form of regression weights and the effect decomposition of model 3 are revealed in Table 13 and 14, respectively. For example, the parameter from SPI to RRI explains that a 1 point increase in SPI would suggest a .160 increase in RRI using unstandardized values. Or, using the standardized values, a 1 point increase in standard deviation units for SPI would create a .282 increase in standard deviation units in RRI. All parameter estimates were statistically significant and reported in Table 13 and 14. The final model with standardized values is displayed in Figure 10. All hypotheses were supported in the final model as having a statistically significant, positive relationship with the variables. In addition, the LM test, along with theory, supported adding two direct paths from SPI to the retirement constructs that were not considered a priori.

In comparing the paths using standardized regression beta (β) weights, it was concluded that RRI has a higher, positive influence on retirement satisfaction and adjustment than the direct paths from SPI. The total effect of SPI via RRI to retirement satisfaction and adjustment is increased by .100 and .103 standardized units, respectively. Finally, the direct path's magnitude from SPI to RRI is comparably the smallest to other path coefficients at .282 (p<.001). The relatively high path coefficients from RRI to RSATIS and RADJ does confirm the high predictive validity reported in Leung & Earl's

(2012) study, indicating that the RRI is important to retirement well-being. All beta weights, except the moderate path effect from SPI to RADJ (β=.157, p<.01), suggest paths have high magnitudes that exceed the .25 rule of thumb for high effect sizes (Keith, 2006). Thus, this model shows that SPI combined with RRI does improve overall retirement well-being, and along with RRI, SPI is an important and highly effective predictor to retirement well-being directly. Due to the homogeneity of the sample's demographics, control variables were not included in the final model. So, these results should be understood knowing that all other variables are held constant or *ceteris paribus.*

Table 13: Maximum Likelihood Parameter Estimates for the Final Structural Model

Parameter	Unstandardized	*SE*	Standardized	*SE*
SPI, RRI	.160**	.036	.282**	.062
SPI, RSATIS	.254**	.052	.285**	.056
SPI, RADJ	.134*	.052	.157*	.060
RRI, RSATIS	.626**	.088	.399**	.052
RRI, RADJ	.645**	.086	.428**	.052
RADJ, RSATIS	.078**	.014	.363**	.054
Factor Loadings				
SPI, Sport Attitude	1.000[a]	-	.839**	.024
SPI, Sport Behav. Involv.	1.628**	.094	.933**	.018
SPI, Sport Social Involv.	1.232**	.080	.813**	.025

Note: **p<.001, *p<.01

[a]Not tested for statistical significance, constrained to 1.000 for model identification.

Table 14: Effect Decomposition of Final Structural Model

Path	Direct Effect	Indirect Effect	Total Effect
SPI, RRI	.282**	-	.282
SPI, RSATIS	.285**	.100**	.385
SPI, RADJ	.157*	.103**	.260
RRI, RSATIS	.399**	-	.399
RRI, RADJ	.428**	-	.428

Note: All values in standardized units. **p<.001, *p<.01

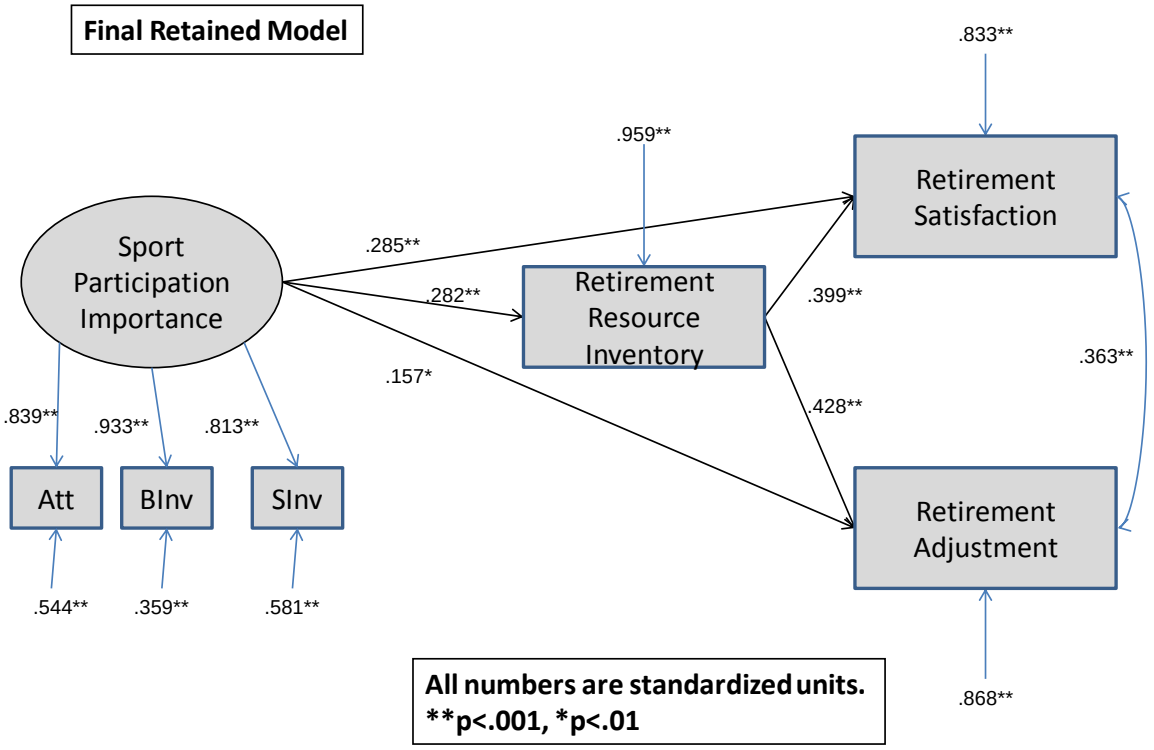


Figure 10: Final Retained Structural Model

DISCUSSION

Several important findings emerged from this study. First, evidence suggested that the revised hypothesized model 1 (model 3) fits significantly better than the hypothesized model 2. These results are consistent with an interpretation that sport participation positively influences resources. This is an important finding in light of the

debate concerning the relationship between leisure activities, like sport participation, and resources. This study is the first to test dueling model hypotheses concerning this relationship debate and supports the prior conceptualization that sport participation leads to resource attainment in retirement, essential in adaptation to transitional events. The retirement transition was highlighted and both sport participation and resources significantly predicted retirement adaptation in the form of retirement well-being with very large to moderate effect sizes. As a consequence, clarity to the research question has been specified that sport participation and people's value of it can have a positive effect on resources that assist people in the retirement transition. In combination with Study 1's conclusion, sport participation may prove to be positively influential in helping people overcome transitions by offering access to resources necessary for returning to an equilibrium state. Hence, Schlossberg's (1981) theorized model is supported with empirical data to suggest that adaptation is dependent upon the balance of resources. This is a promising outcome that postulates inferences toward the utility of sport participation as instrumental in promoting a positive developmental process in adults. Hobfoll (2002, 1989) described resources as the total capability an individual has to fulfill his or her centrally valued needs which serve to be instrumental to people and which helps to define people. The *Sport Participation Importance* construct was defined as the value or significance people place on sport via cognitive, affective, and behavioral elements. Thus, from Study 1's evidence, people responded that they believed, felt, and behaved in a way that suggested resource attainment was significant in overcoming the retirement transition.

To my knowledge, this dissertation is the first to offer a combination of qualitative and quantitative methods that advance this conclusion. Evidence helps to build on Leung and Earl's (2012) postulation that resources predict retirement well-being, but adds empirical evidence of an important antecedent that can affect both resources and retirement well-being. Wang et al. (2011) had theoretically argued that antecedents at multiple levels, including the individual level, influences important resources during the transition to adaptation process essential for future well-being and development. Again, this is the first study to provide empirical support that synthesizes and validates Wang et al. (2011), Wang and Schulz (2010), and Leung and Earl's (2012) research conclusions. It also suggests that sport may be a phenomenon that crosses multiple levels, in concert with conclusions from Study 1, making it highly efficient in addition to its effectiveness.

Second, in Study 2, although sport participation does significantly affect resources, the explanatory relationship is relatively weak suggested by the R^2 in RRI. This is somewhat surprising, but not entirely unexpected given the population and sample of the project. Two retirement communities consisting of retired people over the age of 55 where environments offered a tremendous amount of amenities to its residents were examined. In addition, the sample that participated were highly educated, affluent, and self reported in good mental and physical health. Therefore, people in these communities are already resource-rich individuals which may contribute toward the weak explanatory relationship between sport participation and resources. Nevertheless, finding a positive relationship with a large effect size above their already relative advantaged ability to obtain resources (or perception to obtain) should be considered highly substantive. For

instance, if the model had been tested examining an intervention program that introduced sport participation in an environment and to individuals who are not considered resource-rich, would the effect and explanatory relationship conclude to be stronger? Of course, this would need future studies to examine this distinct possibility, but intriguing nonetheless when considering the increasing chasm between quality and quantity of life. Surely, the quality of life discrepancy is more profound in disadvantaged populations, especially as people reach late adulthood when resources become even more scarce (Chadzko-Zajko, 2000). Hence, would sport participation have more explanatory power in resources within non-resource rich settings and individuals? It is debatable if relatively enriched people need another resource provider, but those deficient in resources may see sport participation as an important and practical asset to be recruited. Context and group differences should be further investigated, particularly in the assumptive differences between advantaged and disadvantaged populations.

Additionally, large disturbances in the dependent variables suggest other exogenous variables that are presumed predictors in the model. Importantly, from this study, we cannot promote sport as a magical elixir that will solve people's ability to overcome transitions. It is but one piece to the overall puzzle, albeit largely effective and fairly efficient. A conclusion could be made that sport can act as a significant complement in people's developmental processes, but other important elements that affect developmental mechanisms have not been identified from this dissertation. Recognizing and detecting suitable forces that can work with sport participation should be researched,

as it is possible that sport participation's effect, in combination with other activities, may be enhanced, inoculated or even deleterious.

Third, the finding that data is consistent with sport participation directly affecting retirement well-being is interesting, as it may suggest that sport participation is, in and of itself, acting as a resource or has resources inherently embedded. The final model suggested that people's value placed on sport participation will *lead* to resource acquirement. People answering the RRI section may be understanding that these resources are *outside* of their participation of sport, not within it. Although anecdotal, it is important to speculate this possibility given the information discovered using SEM analysis. Certainly, sport management literature supports evidence that posited sport containing elements that act as resources similar to those in the RRI. Sense of community (e.g., Warner & Dixon, 2011), social interaction (e.g., Artinger et al., 2006), and even social capital (Putnam, 2000) found in sport participation settings are all indicative of the social resource component postulated by Leung and Earl (2012), Wang et al. (2011), and Wang and Shultz (2010). Physical and mental health improvements in sport and physical activity are well documented in both youth and adults (Baker et al., 2010; Chalip, 2006; Warburton et al., 2006) and are the manifestation of the physical and psychological resources espoused by the aforementioned authors. In addition, the first study showed that people ascribed sport as a resource itself or provided a resource exchange system, offering subjects a tool to overcome transitions in their life. Hence, Study 1 and Study 2 informs us that sport participation may act as a resource

independently from other resource reservoirs during transitional events. The theme that best articulates this finding was advanced in Study 1: *sport as a resource caravan.*

Postulating this option advances a program in sport that renders a system with a multiple capacity to include several resources at once for enduring, quality of life improvement. Theoretically, any sport, optimally designed, could contain several resources for an individual, making it both an effective and efficient delivery system of resources. Knowing this, sport developmental systems outside of the popular elite pyramid model (cf., Eady,1993; Green & Oakley, 2001; Green, 2005) could be cultivated for the often used, but rarely detailed in the U.S., "Sport For Life" (Balyi, 2002) or "Sport For All" (Palm, 1991) milieu. Sport development systems do a great job of detailing elite sport models that encourage mass participation as the bottom support structure and feeder system for elite participation outcomes, like skill development. Under this system, mass participation sport is naturally bound by the policies and procedures created for long-term elite nourishment. But, many mass participants have no intention of pursuing elite skill levels, especially in adulthood. In addition, many athletes transition out voluntarily or involuntarily on a regular basis (Green, 2005). One impetus, as confirmed in Study 1, is to promote participation for a healthy and active life quality. In contrast, sport development has largely ignored detailing adequate programs and infrastructure that would support the moniker "Sport For Life" for the sake of mass participation and quality of life initiatives. Although this dissertation does not present this detail, it does offer a starting point to disentangle the nuances of how and why people would choose to participate in a "Sport For Life" system as opposed to the more commonplace elite-bound

pyramid. That starting point refers to developing sport participation designs as a means to affect resources instrumental to people who face transitional events and need assistance for adaptation.

Fourth, the rejection of model 2 affirms that someone's retrospective beliefs, affection, and behaviors over the course of their life concerning sport participation does not necessarily lead to resource attainment in later life. This is actually promising if we understand it from the standpoint that as people begin sport at a later life stage, they still have the opportunity to benefit from it or change their beliefs and perceptions about sport's efficacy. Sport management implores us to stay grounded when offering the link between sport participation and positive outcomes. Any situation and design concept of sport will dictate the requisite by-products that sport affords. However, evidence from Study 2 along with the life-course adult developmental paradigm promotes the idea that people can have innovative (i.e., discontinuous; Baltes, 1987) experiences with sport participation. In other words, previous experiences do not necessarily solidify someone's current experience in sport, particularly in late adulthood. Sport, as confirmed in Study 1 and 2, is multi-dimensional and multi-leveled. In addition, experiences in sport are very situational and idiosyncratic and maybe difficult to replicate, providing encouragement to those who had poor experiences in the past. In contrast, it may also prove to be sobering to those who had wonderful past occurrences but cannot reproduce the same experiences exactly.

Moreover, Study 1 contained data informing us that people will still select sport even if they had a negative experience because of the normative belief that sport is

beneficial. Meaning, this normative belief may be healthy in marketing sport as a preferred outlet to attract participants. Ergo, sport managers need to be held accountable in providing adequate and suitable programming that meet these expectations. Far too often this value expectation is dampened by supplying unsatisfactory programs to those whose hopes are relatively high. As Green (2005) argued, recruitment and retention are dependent upon people's perception that the value of sport is not only met, but exceeds alternative activities' value. In late adulthood, due to the alarmingly low and declining sport participation rates (Bowers et al., 2010), sport program designs may need a face-lift that is more in alignment with the needs of the older adult population.

Finally, I developed a new sport participation scale that captures three overall dimensions: *sport attitude* (cognitive and affective), *sport behavioral involvement*, and *sport social involvement*. A measure that encompasses a comprehensive viewpoint on sport participation's value and significance has not been advanced for sport management and other sport related research. This measure will be helpful in understanding the effects and benefits of sport which can inform future optimal design of sport. Further, this scale along with the entire model can help us in sport development longitudinal methods for adults in retirement. Tests could be conducted to adjust the semantics of the model and scale to possibly use outside of the retirement transition, particularly the *sport participation importance* measure (SPI). SPI could easily be applied to other points in people's lives, including youth and adolescent stages. The model also could be used to test other transitional points. The RRI, retirement well-being (adjustment and life satisfaction measures) could also be altered to reflect any point in a person's life.

However, additional factor analyses would need to be deployed. As we learned, the RRI's dimensionality was not confirmed in this study and additional research should be focused on clarifying the equivocal findings thus far in the structure and dimensionality of resources.

Limitations

Potential limitations to this study included the environment in which the study took place. Retirement community dwellings can be considered an enriched environment that provides heightened accessibility to resources that other communities do not offer to individuals. It may be hard to generalize outside of this context. In addition, I am using the retirement transitional event and any attempts to generalize to other transitional events, particularly at different age stages, may be erroneous. Testing this model at different transition points may be plausible with necessary adjustments to the questionnaires and guided by relevant theory.

Another limitation is this dissertation did not specifically address differences within and between types of sport and/or exercise activities that the participants referred to when answering the questions. The types of activities were not discerned, but the multi-dimensionality of sport is apparent. Thus, one could argue that different types of sport and their distinct settings may have different effects and relationships. Again, the design of activity and nuances of the environment should be addressed in future research to test for relative differences. Understanding the variances inherent in the types of activities will unequivocally lend better insight on specific components needed for sport's

optimal design for certain groups and situations. The same could be said for group differences, particularly gender, and especially research conducted outside of homogeneous population samples. This limitation was precipitated by the lengthy survey. Some questions had to be excluded to limit its breadth. Admittedly, the survey was laborious with over 100 questions, which contributed to high dropout, missing data, and a low response rate. Naturally, some important questions were left out that could have been used to bring additional clarity to some of the results, like more detail on the sports people participated in.

Comparably, a major limitation of this study was the inability to ascertain the dimensionality of resources. Due to this limitation, an understanding of the relationships between and within resources was prevented. Thus, we are not informed about which resources sport does affect nor which resources may affect outcome measures. Additional research is already underway to evaluate the factor structure of the resource measure used from this study in order to continue the discourse on the multi-dimensionality of resources advanced by Leung and Earl (2012), Wang et al., (2011), and Wang and Shultz (2010). The results of this and future research can isolate the most important resources during specific transitional points, particularly retirement. Increased focus on types of resources affected and their relative effect sizes will help educate particular design components for sport programs and interventions, as explained earlier.

Finally, any attempts to explain longitudinal developmental outcomes directly should be avoided. This study aims to explain short-term transitional processes that are embedded within overall developmental trajectories, particularly at retirement. This was

a cross-sectional design that included retirees who may be already adjusted or in the later stages of adjusting. The mean years in retirement was roughly 10 years. Therefore, the effects could be positively biased since adaptation is typically not that lengthy in retirement (van Solinge & Henkens, 2008). Future research should use longitudinal growth curve modeling to assess the change in resources over time along with a person's adaptation propensity. In addition, future research should try to reach samples immediately after a transitional point with more objective measures, rather than retrospective self-reports. This present study cannot assume causal relationships. A research design that is experimental and uses sport participation as an intervention may show a stronger relationship and could even provide more convincing causal mechanism evidence.

Chapter 6: Overall Discussion

THEORETICAL IMPLICATIONS

The strength of this dissertation flows from the multi-method research design which provides robust evidence that suggests both a belief and expectation that sport can act as a beneficial resource. In addition, evidence was generated that informs us of the strength of this belief at a specific and crucial transition point marking the beginning of late adulthood: retirement from the workforce. The theoretical impacts from these results have both human development and sport management implications. First, sport's positive association with resources and overall well-being in retirement extend Wang et al.'s (2011) Resource Dynamic Theory by providing a plausible, multi-level antecedent that affects resource attainment. This is the first study that provides empirical evidence that supports an antecedent/strategy affecting retirement resources. Wang et al. (2011) postulated antecedents with little empirical evidence to accurately describe them. However, in Study 1, evidence suggests that sport has the ability to be multi-systematic in the exchange of resources during a transitional event. In Study 2, data was consistent with a large magnitude in sport's ability to not only affect resources, but affect retirement well-being directly. These results offer explanation on how people perceive the utility of sport as a strategy to adapt to life transitions by replacing resources that were lost. In addition, structural equation modeling helped confirm and provide additional empirical support of the predictive validity concerning the positive association of resources with retirement well-being as postulated by Leung and Earl (2012). Hence, clarification of the relationship between resources and retirement well-being is strongly advanced via qualitative and quantitative measures.

Secondly, Schlossberg's model of transitions is extended by suggesting an effective and efficient moderator to the factors and resources espoused to influence adaptation. As transitions occur in one's life, the context of sport from this study's data infers that sport offers a unique, multi-tiered system of resource exchanges. Other strategies may provide impacts on the factors that mediate the transition to adaptation process, like seeing a psychologist, attending church, or spending time with family. However, few settings can match sport's ability to be multi-dimensional and multi-systematic. Sport's value lies in its unique ability to bundle resources at once, like physical health, social engagement, psychological benefits. A strategy that can act in this way should be seen as advantageous due to its effective and efficient characteristics. As Schlossberg (1981) posited, factors cover individual and environmental elements. Thus, if deficits occur as a result of a transitional event, strategies to inoculate the transition should be multi-faceted. Otherwise, a single-dimensional strategy may be limited in its effectiveness. Sport shows the unique ability to serve as this multi-dimensional tool across systems.

People seeking well-being in retirement need adequate resources covering many areas. This study shows that understanding the dimensionality of resources is still in question. Wang et al. (2011) postulated that six dimensions of resources in retirement are essential whereas Leung and Earl (2012) provided evidence to support a three dimensional resource structure. Data from this study do not support either postulations. The implication of this finding prevents us from determining the strength of associations between sport and specific resources as well as specific resources and retirement well-being. Understanding precise dimensions is crucial to focus on resources that are most important in the transition to adaptation process, particularly if sport is espoused as a plausible strategy. For example, sport participation may not have any effect on financial

resources. Therefore, designing a sport program that eliminates the possibility of building financial resources could be planned increasing the efficiency of the program. Further, we do not know the relationship among the resources themselves. Structural equation modeling can evaluate these relationships if the dimensionality of the resource construct was reliable and valid. The implication of this finding would lead us to understand if resources may lead to other resources, like higher psychological resources affecting social resources. Again, design inputs could be tailored specifically to promote these relationships.

PRACTICAL IMPLICATIONS

The importance placed on designing and promoting sport programs to induce eventual outcomes cannot be understated. The results of this multi-method research study illuminate the role that sport plays in people's lives during transitional events, especially in adulthood. Sport as a resource provider may help sport managers re-think the most effective way to include components that serve this impetus and produce these outputs. Data suggest sport participation acts as a buffering effect and adaptive strategy for adults in transition, consistent with other scholars' conclusions on leisure and sport activities (Dionigi, 2002, 2005, 2006; Hutchinson et al. 2003; Kleiber et al., 2003; Langley & Knight, 1999). Although conclusions from this study do not address design components of sport directly, the strength of this research lies in informing future research that can methodically examine inputs that are fitting for reaching desirable outcomes sought by sport managers.

Sport designs are difficult to cultivate and not one design is optimal due to the complexity and multi-dimensional nature of sport, the environment, and the individual. On one hand, this makes sport challenging to research and draw conclusions which frequently causes equivocal interpretations. On the other hand, it shows sport as a robust and distinct setting that arguably, is very difficult to replicate. As Porter (1985) and Barney (1991) would say from a management perspective, this should be considered rare and hard to imitate, making sport a setting that is quite possibly discrete and certainly competitively advantageous. Thus, sport's value over other alternative activities should be exploited and embraced for its diverse system of relations, traditions, and rituals particularly found to be important in resource exchange and attainment from this dissertation. Knowing this, it is then up to managers to strategically create sport programs that can nurture and embrace a multi-leveled system that can reap these benefits.

Systematically, one suggestion may lie in adopting an ecological approach to program planning advanced by Green and Kreuter (2005). Their PRECEDE-PROCEED model is but one popular, well respected initiative that could be used in combination with this study's theoretical and empirical data on sport participation and quality of life outcomes to build serviceable sport programming. Briefly, it approaches program planning starting with the outcomes we seek and works logically backward toward input elements important to (sport) managers (e.g., design, policy, management, budgeting, marketing, evaluation) (Green & Kreuter, 2005). PRECEDE-PROCEED has been well established in the health disciplines as effective and efficient program building protocol.

Future research that can build upon these outcomes in concert with identifying design components would be considered a significant contribution to the sport management gestalt.

Some practical suggestions for sport design for adults in later adulthood that could be taken from this dissertation are as follows. First, as Green (2005) posited, identifying different sport components and comparing similarities that may promote resources in the form of physical, psychological, social, emotional, and motivational aspects may isolate commonalities attributed to sport. For example, Green & Chalip (1998) found that including social opportunities around a women's flag football tournament increased their enjoyment with the event. Other research, including this dissertation, proposed that social aspects (Artinger et al., 2006) or the sense of belonging (Warner & Dixon, 2011) with individuals in sport may help differentiate sport from other activities. Therefore, for adult programming, adding a social gathering that promotes engagement with others before, during, and/or after the sport program should be explored. This could include allowing participants to exchange contact information, structured conversations designed to get to know one another, or create a ritual of meeting some place immediately following or before the game or activity. Moreover, taking advantage of sport's rituals and traditions, like gratitude handshakes after the game or youth value pledges before the game, may help increase social bonds with teammates and opponents. A social component may help to recruit and retain sport participants, limiting their disengagement.

Another suggestion may be to incorporate elements that boost self-efficacy and self-confidence, helping to allay fears of incompetency normally attributed to novice

sport participants. Offering personal trainers or 1-on-1 instruction during the initial stages of participation may help recruit older adults that have never participated in a sport before. In addition, Allender et al. (2006) suggested that older adults seek mentors or coaches that are well respected and are similar in character traits to themselves in order to participate. Much like golf and tennis, 1-on-1 personal lessons are widely offered and help increase the attraction of adults to those sports. Thus, identifying people's competency level would be necessary upon recruitment in order to offer and promote the accurate instructional seminars with the appropriate trainer or coach. Further, designing ways to reward performances or attendance for all participants may increase their self-efficacy and enjoyment of the activity. Coaches or trainers could administer the rewards that are available for all ability levels.

Finally, adapting the rules or infrastructure of traditional sport to fit the resource needs of adults should be considered. For instance, physical limitations are common and inevitable as we age. This reality cannot be avoided. So, sport modifications that shorten the size of the playing area or promote equal playing time for all participants may reduce exertion levels required from a particular sport. Pickleball is just one example that has evolved that emulates tennis on a much smaller scale. Pickleball is widely popular in retirement communities. Because the game has been modified, sport managers are able to recruit and retain participants easier. If more participants play sport longer, then perhaps the benefits and resources they need will be more likely obtained within a positive sporting experience.

These are just some of many suggestions that could boost sport's value in the face of transitional events for older adults, helping to promote recruitment and retention necessary for resource attainment. In addition to older adults, other suggestions about designing sport to meet other ages and transitions should be considered. Promoting sport that includes facilities that offer care for young children or markets family integrated programming when adults are experiencing the transition of having children may be worthy. From a development point of view, caution must always be taken not to assume which outcomes are appropriate for which population. Thus, a robust research agenda is needed to reach the many conclusions still left unknown for adults and for all ages naturally experiencing change in their life. Hopefully, the evidence supplied here is one step in that direction for sport management and sport-for-development purposes that can support quality of life as we age--*using sport as that resource*. It is not what we know sport participation outcomes could be, it is what we can do with these outcomes to help sport become what people and its participants *need* it to be. Adults, particularly older adults, have been neglected when it comes to sport design. Sport managers can use this study's model and theoretical considerations to help decipher inputs through testing the efficacy of different types of sport that can maximize desirable outcomes. Then, those sports can be isolated and examined further to disentangle certain design elements that are most proficient and influential in producing results. Similarities can be identified, modified, and applied to shape sport for the contexts appropriate for the outcomes we seek using a systematic program planning template, like PRECEDE-PROCEED.

FUTURE DIRECTION AND CONCLUSION

Many limitations were discussed earlier concerning each study. Overall, sport management and development literature should exploit these limitations to build future research projects that add to the dearth of studies in adult sport participation and development. One area that should be highlighted is understanding group differences with the sport and transition relationship. This dissertation did not clearly decipher and interpret these potential differences. Thus, future research should examine differences in the types of sport, types of transitions, types of resources, and types of participants and settings. Each sport has relative differences ranging from the number of people to the physical requirements to the socio-cultural values. All of these may impact sport's relationship with resources rendered from participation. Using the proposed model from this dissertation outside of retirement communities and comparing it with enriched communities like retirement communities is one project that will be conducted as an extension of this dissertation. The model can also be used when comparing different sporting activities and different transitional points across the life span. Retirement may have unique qualities that differentiate it from transitions like marriage, children births, or death of loved ones. These research projects would be valuable in understanding if the model can be replicated in other environments and with other people. Do resources have larger effect sizes in certain situations? Which resources are most commonly lost and can we design sport (and other strategies) to serve the most volatile resources? Additionally, do certain cohort groups and policies have lasting impacts on sport participation and resources? For example, in Study 1, Title IX had a profound impact on women's perception of sport participation as they aged. Title IX helped to change the common perception of sport participation among women. So, examining other life cycle and cohort influences may be valuable in developing design strategies wishing to increase

sport participation's ability to serve people positively. These are some questions that may be interesting to answer.

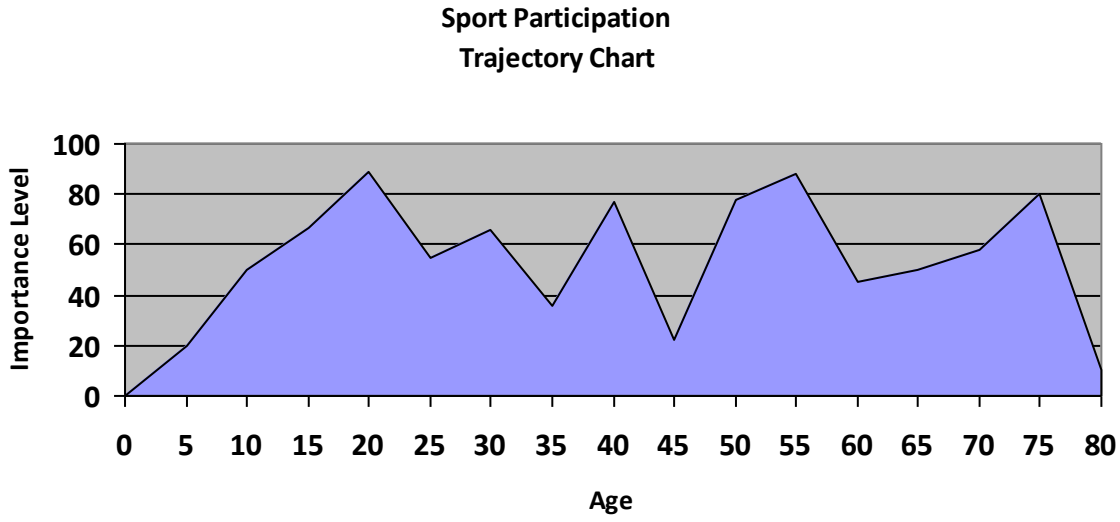
Finally, a longitudinal research agenda should be the logical next step in understanding the long-term developmental impacts of sport on resources and transitions. Following a cohort of individuals over many transitions and different types of sport in relation to well-being or other outcome measures will yield important findings to both sport management and human development literature. This study offers a starting point and credible model that could launch a longitudinal design. For example, research will continue with some of the subjects from Study 2 who volunteered to extend their research participation. We will be able to assess changes in the relationship between resources and sport participation as they move through retirement. Constructing a design that considers group differences as espoused above in a longitudinal manner can elucidate additional insight on the effectiveness of sport and its valence as a strategy to be used in transitions.

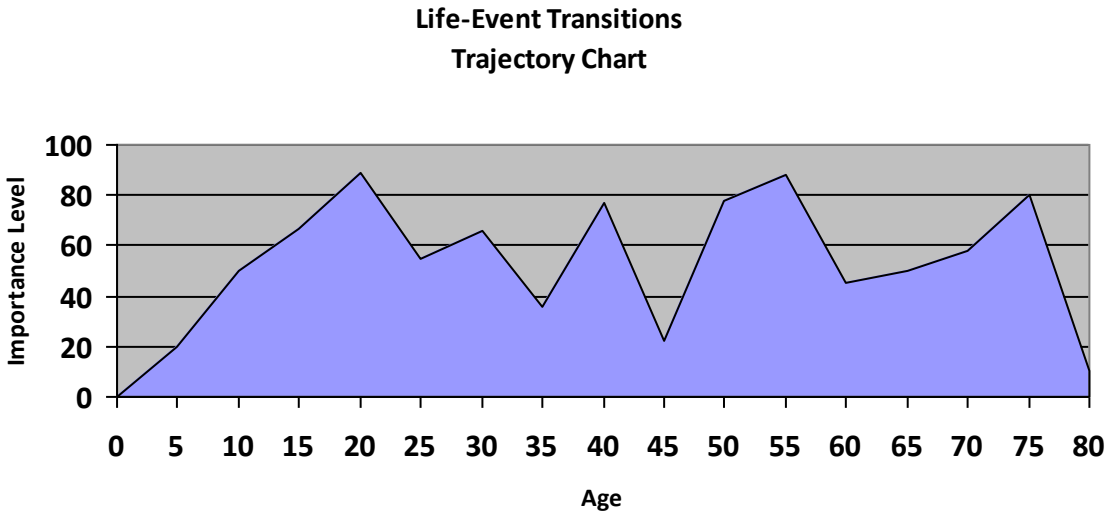
To conclude, this dissertation offers some valuable contributions to the fields of human development and sport management. For human development, this study is the first to show an effective and efficient strategy that affects valuable resources in retirement needed for positive well-being. Results extend existing theoretical models as well as offering a new model to test in replication studies. Further, a new conceptualized transition to adaptation model with moderating components is offered for future research testing. Thus, theoretical and practical implications can be used and expanded upon that may enrich the human development and aging gestalt. For sport management, a common assumption and boundary condition that sport developmental programming should be designed for youth is extended into the adult realm. Using human development and aging paradigms helped to extend this boundary, opening the door for a potential

expansive research aim geared at adults. A new sport participation measure is advanced that was sorely lacking in sport management research that can be critiqued and possibly used for research replication. Moreover, this study offers evidence in the resource-sport participation debate, supporting the notion that sport participation actually acts as a resource or does provide resources, not vice-versa. Other research should be conducted to support or disconfirm this finding, particularly testing contexts outside of already resource-rich environments. Nevertheless, this dissertation's rigorous and diverse methodological approach should provide credible and valid insight on the sport and transition phenomenon. People believed that sport helped them in transitions by providing valuable resources that other activities could not match easily. This revelation is an optimistic finding that adds but one strategy adults could select when navigating the rigors of aging and reducing the challenges of pursuing a high quality of life.

Appendices

Appendix A: Sport Participation and Life-event Trajectory Templates





APPENDIX B: RAGHEB AND BEARD'S (1982) LEISURE ATTITUDE SCALE & KYLE ET AL.'S (2007) ENDURING INVOLVEMENT CONSTRUCT FROM THEIR MODIFIED INVOLVEMENT SCALE (MIS) AS EXPLAINED IN JUN ET AL. (2012).

These are all measured using a 5 point scale, Strongly Agree to Strongly Disagree

COGNITIVE (9)

When I think about my life before (after) I retired I feel that…

1. Sport participation contributed to my health
2. Sport participation contributed to my happiness
3. Sport participation increased my work productivity
4. Sport participation renewed my energy
5. Sport participation was a means of self-improvement
6. Sport participation helped me to relax
7. Sport participation provided me with opportunities to socialize
8. Sport participation was an important part of my life
9. Sport participation was an important source of friendships

AFFECTIVE (7)

When I think about my life before I retired I feel that…

1. My sport participation gave me pleasure
2. I valued my sport participation
3. I felt that sport participation was good for me
4. I felt that it was appropriate to participate in sport frequently

Involvement: Attraction

5. Sport participation was one of the most enjoyable things I did
6. Sport participation was very important to me
7. Sport participation was one of the most satisfying things I do

BEHAVIORAL (8)

When I think about my life before I retired I feel that…

1. I participated in sport frequently
2. I spent considerable time and effort to be competent in sport
3. I played sport even when I was busy

Involvement: Centrality

4. A lot of my life was organized around sport
5. Sport occupied a central role in my life

Involvement: Social Bonding

6. I enjoyed discussing sport with my friends
7. Most of my friends were in some way connected with sport
8. Participating in sport provided me with opportunities to be with my friends

APPENDIX C: RETIREMENT RESOURCES INVENTORY (RRI; LEUNG & EARL, 2012)

RT3: (item 1–8); RT2: (item 9–17); RT1: (item 18–35) [*=reverse-scoring]

Please rate the following items according to your recent status.

(1) I would consider my general health condition to be _____.
extremely poor fairly poor average good extremely good

(2)* I am _____ affected by one or more major physical illnesses (e.g. heart disease, diabetes, foot problems, arthritis, hypertension).
not mildly moderately more than moderately severely

(3)* I am _____ affected by one or more mental disorders (e.g. dementia, depression, anxiety disorder, panic disorder).
not mildly moderately more than moderately severely

(4) I have _____ energy to carry out daily activities or activities that I am interested in.
very little/no limited/inadequate a moderate amount of a substantial amount of excess

(5) I possess _____ income to support my/my family living expenses.
very little/no limited/inadequate a moderate amount of a substantial amount of excess

(6) I have _____ financial support from my personal savings.
very little/no limited/inadequate a moderate amount of a substantial amount of excess

(7) I have _____ financial support from my investments.
very little/no limited/inadequate a moderate amount of a substantial amount of excess

(8) I have _____ financial support from my superannuation fund.
very little/no limited/inadequate a moderate amount of a substantial amount of excess

(9) I have _____ friends whom I can interact with regularly.
very few/no few a moderate number of a substantial number of many

(10) I have _____ family members whom I can interact with regularly.
very few/no few a moderate number of a substantial number of many

(11) I know_____ people from various sources (e.g. religious groups, leisure groups, sporting teams, volunteer groups, part-time employment).
very few/no few a moderate number of a substantial number of many

(12) I would consider interactions with friends (in general) to be _____ supportive.
not at all fairly moderately quite very

(13) I would consider interactions with family members (in general) to be _____ supportive.
not at all fairly moderately quite very

(14) I would consider interactions with acquaintances from various sources (e.g. religious groups, leisure groups, sporting teams, volunteer groups, part-time employment) to be _____ supportive.
not at all fairly moderately quite very

(15) I _____ receive informational support from others, where informational support refers to receiving information or advice from someone on handling difficult circumstances, rectifying a situation, following through with a solution, following-up on a difficult event, and receiving constructive criticism.
never rarely sometimes often very often

(16) I _____ receive emotional support from others, where emotional support means someone was available to listen, to acknowledge my feelings, to support me in stressful situations, to act as a confidant, and to express interest in my well-being.
never rarely sometimes often very often

(17) I _____ receive tangible support from others, where tangible support refers to receiving help with meal preparation, temporary housing, household chores, shopping, respite, financial needs, transportation, care of the house when away, and the loan of something I needed.
never rarely sometimes often very often

(18) I experience _____ positive emotions (i.e. interested, excited, strong, enthusiastic, proud, determined, alert, inspired, attentive, active).
very little/no limited/inadequate a moderate amount of a substantial amount of excess

(19) I have _____ability to perceive my/others' emotions accurately.
very little/no limited/inadequate a moderate amount of a substantial amount of excess

(20) I possess _____ knowledge about how emotions vary or influence behavior.
very little/no limited/inadequate a moderate amount of a substantial amount of excess

(21) In general, I feel that I have _____ ability to use emotions to facilitate my thoughts and communication.
very little/no limited/inadequate a moderate amount of a substantial amount of excess

(22)* I have little control over the things that happen to me.
strongly disagree disagree neutral agree strongly agree

(23) I feel that I am a person of worth, at least on an equal plane with others.
strongly disagree disagree neutral agree strongly agree

(24)* I _____ forget things in the immediate past or where I have placed things.
never rarely sometimes often very often

(25) I have _____ ability to recall events that happened a while ago.
very little/no limited/inadequate a moderate a substantial excess

(26) I have _____ ability to recall meanings and spellings of different words/concepts.
very little/no limited/inadequate a moderate a substantial excess

(27) I have _____ ability to acquire new knowledge or skills.
very little/no limited/inadequate a moderate a substantial excess

(28) I would consider my speed of processing information (e.g. numbers, texts) to be generally _____.
very slow slow moderate fast very fast

(29) I have _____ ability to understand and solve problems.
very little/no limited/inadequate a moderate a substantial excess

(30) I have _____ ability to perform good decision making (i.e. selecting the most appropriate choice from the available options).
very little/no limited/inadequate a moderate a substantial excess

(31) When faced with difficulty, I usually increase my efforts.
strongly disagree disagree neutral agree strongly agree

(32) Even when things seem hopeless, I keep fighting to reach my goals.
strongly disagree disagree neutral agree strongly agree

(33) I can easily adapt to changes in goals, plans or circumstances.
strongly disagree disagree neutral agree strongly agree

(34)* When I get stuck on something, it's hard for me to find a new approach.
strongly disagree disagree neutral agree strongly agree

(35)* I create many problems for myself because I set unrealistic goals.
strongly disagree disagree neutral agree strongly agree

APPENDIX D: RETIREMENT ADJUSTMENT SCALE (HEALTHY RETIREMENT PROJECT; DE VAUS, ET AL., 2007; QUINE ET AL., 2007; WELLS ET AL., 2006)

(Please circle the number that most nearly corresponds to the statement)	Strongly Agree	Agree	Mixed Feelings	Disagree	Strongly Disagree
I am restless	1	2	3	4	5
I am well adjusted to the changes	1	2	3	4	5
I enjoy being retired	1	2	3	4	5
I am busy	1	2	3	4	5
I have real concerns about my financial situation	1	2	3	4	5
I miss the stimulation that work gave me	1	2	3	4	5
I wish I had started to plan for retirement earlier	1	2	3	4	5
I miss the discipline that working gave me	1	2	3	4	5
People don't respect me as much now that I am retired	1	2	3	4	5
I have had to adjust to a big drop in my income	1	2	3	4	5
I miss being part of the action	1	2	3	4	5
Retirement has not lived up to my expectations	1	2	3	4	5
Retirement has been better than I expected	1	2	3	4	5

APPENDIX E: RETIREMENT SATISFACTION SCALE (FLOYD ET AL., 1992)

Please indicate your current level of satisfaction with the following areas of your life in retirement:

Not Applicable	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Satisfied	Very Satisfied
0	1	2	3	4	5	6
My marriage						
0	1	2	3	4	5	6
My financial situation						
	1	2	3	4	5	6
My physical health						
	1	2	3	4	5	6
The health of my spouse						
0	1	2	3	4	5	6
The quality of my residence						
0	1	2	3	4	5	6
Relationships with other family members (such as children, brothers and sisters, cousins, nieces and nephews)						
0	1	2	3	4	5	6
My level of physical activity						
	1	2	3	4	5	6
My access to transportation						
	1	2	3	4	5	6
Services from community agencies and programs						
0	1	2	3	4	5	6
Services from government aid programs (such as social security, medicare, subsidized housing, and nutrition programs)						
0	1	2	3	4	5	6
My personal safety						
	1	2	3	4	5	6

APPENDIX F: EXPLORATORY FACTOR ANALYSIS ON RETIREMENT RESOURCE INVENTORY (RRI) USING VARIMAX ROTATION WITH TEN FACTORS EXTRACTED AND LOADINGS

	Factors Extracted									
(Questions)	1	2	3	4	5	6	7	8	9	10
(1)	.01	.10	.05	.05	.07	.83	.01	-.07	.09	.02
(2)	.03	-.02	-.13	.06	-.19	.79	.05	.00	.01	.10
(3)	-.01	-.14	-.01	-.06	.21	.19	.47	.37	-.09	.19
(4)	.16	.07	.23	.01	.24	.70	.09	.13	-.05	-.14
(5)	.13	.02	-.03	.83	.04	-.07	.08	-.04	-.12	-.15
(6)	.00	.02	.05	.91	.02	.07	.02	-.01	.00	.00
(7)	.00	.01	.01	.90	-.09	.03	.04	-.09	-.03	-.02
(8)	.02	.05	-.02	.55	.13	.04	-.06	.15	.11	.22
(9)	.18	.17	.75	.02	.07	-.10	-.02	.26	.13	-.10
(10)	.13	.10	.38	.05	.06	-.03	-.03	.70	.13	-.09
(11)	.17	.19	.81	.03	.12	.06	.05	.12	.02	.02
(12)	.18	.37	.55	-.09	.10	.03	.20	.32	.20	.09
(13)	.05	.28	.22	-.03	.12	.00	.11	.75	.11	.02
(14)	.16	.28	.65	-.06	.20	.12	.16	.05	.21	.12
(15)	-.11	.22	.21	-.03	-.11	.09	-.03	.20	.71	.16
(16)	.05	.40	.24	-.05	-.06	.04	.15	.27	.57	.12
(17)	-.04	-.14	.04	.00	.20	.00	.00	-.06	.80	-.15
(18)	.18	.53	.44	.16	.12	.18	.11	.09	.04	.02
(19)	.18	.77	.28	.05	.11	.00	.14	.08	.00	.03
(20)	.20	.88	.14	.00	.14	.04	.02	.05	.08	-.02
(21)	.22	.78	.17	.03	.24	.05	.07	.18	.05	-.07
(22)	.05	.19	.30	.00	.19	.11	.40	-.06	-.19	.40
(23)	.18	.09	-.05	.03	.05	.10	.63	.29	-.02	-.03
(24)	.23	-.04	-.01	.01	.10	-.02	.00	-.01	.06	.76
(25)	.70	.23	.07	.00	-.06	-.11	.06	.05	.04	.15
(26)	.64	.28	.14	.02	.10	.11	.14	.00	.03	.00
(27)	.73	.09	.25	-.06	.09	.10	.21	.10	-.02	.03
(28)	.65	-.06	.09	.18	.04	.04	.08	-.03	-.08	.30
(29)	.79	.09	.10	.04	.22	.09	.11	.01	-.07	-.06
(30)	.76	.18	.05	.03	.31	.02	.02	.14	-.06	.00
(31)	.22	.19	.13	.00	.72	.06	.13	.17	.02	.23
(32)	.24	.31	.17	.01	.75	.03	.02	.03	.04	.15
(33)	.21	.12	.22	.13	.48	-.04	.22	.11	.09	-.25
(34)	.35	.14	.11	.09	.30	-.09	.50	-.10	.13	-.19
(35)	.22	.15	.19	.04	-.03	-.01	.70	-.14	.08	.05

References

Aldwin, C. M.., & Gilmer, D. F. (1999). Immunity, disease processes, and optimal aging. In J. C. Cavanaugh & S. Whitbourne (Eds.) (pp. 123-154). *Gerontology: An interdisciplinary perspective*. Oxford: Oxford University Press.

Aldwin, C. M., Park, C. L., & Spiro, A. (Eds.). (2007). *Handbook of health psychology and aging*. Guilford Press.

Alemayehu, B., & Warner, K.E. (2004). The lifetime distribution of health care costs. *Health Services Research, 39,* 627-642.

Allender, S., Cowburn, G., & Foster, C. (2006). Understanding participation in sport and physical activity among children and adults: A review of qualitative studies. *Health Education Research, 21,* 826-835.

Anderson, M.L., Goodman, J., & Schlossberg, N.K. (2012). *Counseling adults in transition* (4th ed.). New York, NY: Springer.

Artinger, L., Clapham, L., Hunt, C., Meigs, M., Milord, N., Sampson, B., & Forrester, S. A. (2006). The social benefits of intramural sports. *Journal of Student Affairs Research and Practice, 43,* 69-86.

Atchley, R. C. (1975). Dimensions of widowhood in later life. *The Gerontologist, 15*(2), 176-178.

Baker, J., Fraser-Thomas, J., Dionigi, R.A., & Horton, S. (2010). Sport participation and positive development in older persons. *European Review of Aging and Physical Activity, 7,* 3-12.

Baltes, P.B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental Psychology, 23*, 611-626.

Baltes, P. B., & Baltes, M. M. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation. *Successful Aging: Perspectives from the Behavioral Sciences*, *1*, 1-34.

Balyi, I. (2002). Long-term athlete development: The B.C. Approach. *SportsAider, 18*, 3–4.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*, 99-120.

Beck, S.H. (1982). Adjustment to and satisfaction with retirement. *Journal of Gerontology, 37,* 616-624.

Berg, B. (2012). *Toward sustainable public health programs: A case study of local physical activity approaches.* (Doctoral Dissertation, The University of Texas at Austin). Retrieved from https://repositories.lib.utexas.edu/handle/2152/ETD-UT-2012-08-6326

Bevil, C. A., O'Connor, P. C., & Mattoon, P. M. (1994). Leisure activity, life satisfaction, and perceived health status in older adults. *Gerontology & Geriatrics Education*, *14*(2), 3-19.

Black, D.R. (2010). The ambiguities of development: Implications for 'development through sport.' *Sport in Society, 13,* 121-129.

Bowers, M., Chalip, L., & Green, B.C. (2010). United States of America. In M. Nicholson, R. Hoye, & B. Houlihan (Eds.), *Participation in sport: International policy perspectives* (pp. 254 - 267). New York, NY: Routledge.

Bridges, W. (1980). *Transitions: Making sense of life's changes*. New York, NY: Addison-Wesley.

Bridges, W. (2004). *Transitions: Making sense of life's changes*. Cambridge, MA: Da Capo Press.

Brammer, L. (1991). *How to cope with life transitions: The challenge of personal change.* New York, NY: Hemisphere.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American psychologist*, *32*(7), 513-531.

Bronfenbrenner, U. (1994). Ecological models of human development. In T. Husten & T. N. Postlethwaite (Eds), *International encyclopedia of education* (2nd edition pp. 3-27). Oxford, England: Pergamon Press.

Bruner, M.W., Munroe-Chandler, K.J., & Spink, K.S. (2008). Entry into elite sport: A preliminary investigation into the transition experiences of rookie athletes. *Journal of Applied Sport Psychology, 20,* 236-252.

Bryman, A. (2006). Integrating quantitative and qualitative research: How is it done? *Qualitative Research, 6,* 97-113.

Calasanti, T. M. (1996). Gender and life satisfaction in retirement: An assessment of the male model. *Journal of Gerontology: Social Sciences,51B,* 18–29. doi:10.1093/geronb/51B.1.S18

Carver, C. S., & Scheier, M. F. (1981). *Attention and self-regulation: A control-theory approach to human behavior.* New York: Springer-Verlag.

Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality-social, clinical and health psychology. *Psychological Bulletin, 92,* 111–135.

Cavanaugh, J.C. (1999). Theories of aging in the biological, behavioral, and social sciences. In Cavanaugh, J.C. and Whitbourne, S.K. (Eds.), *Gerontology: An Interdisciplinary Perspective* (pp. 1-32). New York, NY: Oxford University Press.

Centers for Disease Control and Prevention (2011a). *Healthy aging: Helping people to live long and productive lives and enjoy a good quality of life.* Retrieved from http://www.cdc.gov/chronicdisease/resources/publications/AAG/aging.htm#nav

Centers for Disease Control and Prevention (2011b). *The CDC Healthy Brain Initiative: Progress 2006–2011*. Atlanta, GA: CDC.

Chalip, L. (2006). Toward a distinctive sport management discipline. *Journal of Sport Management, 20,* 1-21.

Chalip, L., & Scott, E. P. (2005). Centrifugal social forces in a youth sport league. *Sport Management Review, 8,* 43-67.

Chalip, L., Thomas, D. R., & Voyle, J. (1996). Enhancing well-being through sport and recreation. *Community Psychology and Social Change: Australian and New Zealand Perspectives, 2,* 126-156.

Chodzko-Zajko, W. (2000). Successful aging in the new millennium: The role of regular physical activity. *National Association for Physical Education in Higher Education, 52,* 333-343.

Coalter, F. (2007). Sports clubs, social capital and social regeneration: "Ill-defined interventions with hard to follow outcomes"? *Sport in Society, 10,* 537-559.

Coalter, F. (2010). The politics of sport-for-development: Limited focus programmes and broad gauge problems? *International Review for the Sociology of Sport, 45,* 295-314.

Costello, A.B., & Osborne, J.W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation, 10*(7), 1-9.

Cowen, M., & Shenton, R. (1995). The invention of development. *Power of development,* 27-43.

Creswell, J.W., & Miller, D.L. (2000). Determining validity in qualitative inquiry. *Theory Into Practice, 39,* 124-130.

Debois, N., Ledon, A., Argiolas, C., & Rosnet, E. (2012). A lifespan perspective on transitions during a top sports career: A case of an elite female fencer. *Psychology of Sport and Exercise, 13,* 660-668.

De Bosscher, V., De Knop, P., Van Bottenburg, M., & Shibli, S. (2006). A conceptual framework for analysing sports policy factors leading to international sporting success. *European Sport Management Quarterly, 6,* 185-215.

De Vaus, D., Wells, Y., Kendig, H., & Quine, S. (2007). Does gradual retirement have better outcomes than abrupt retirement? Results from an Australian panel study. *Ageing & Society, 27*(5), 667-682.

Dionigi, R. A. (2002). Leisure and identity management in later life: Understanding competitive sport participation among older adults. *World Leisure Journal, 44,* 4-15.

Dionigi, R. A. (2005). A leisure pursuit that "goes against the grain": Older people and competitive sport. *Annals of Leisure Research, 8,* 1-22.

Dionigi, R. A. (2006). Competitive sport as leisure in later life: Negotiations, discourse, and aging. *Leisure Sciences, 28,* 181-196.

Donaldson, T., Earl, J. K., & Muratore, A. M. (2010). Extending the integrated model of retirement adjustment: Incorporating mastery and retirement planning. *Journal of Vocational Behaviour,* 77, 279–289.

Dorfman, L.T., & Douglas, C.K. (2005). Leisure and the retired professor: Occupation matters. *Educational Gerontology, 31*(5), 343-361.

Eady, J. (1993). *Practical sports development*. London: Pitman

Eccles, J.S., & Barber, B.L. (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? *Journal of Adolescent Research, 14,* 10-43.

Eccles, J. S., Barber, B. L., Stone, M., & Hunt, J. (2003). Extracurricular activities and adolescent development. *Journal of Social Issues, 59,* 865-889.

Elavsky, S., McAuley, E., Motl, R. W., Marquez, D. X., Hu, L., Jerome, G. J., & Diener, E. (2005). Physical activity enhances long-term quality of life in older adults: efficacy, esteem, and affective influences. *Annals of Behavioral Medicine, 30*(2), 138-145.

Elder Jr., G.H. (1985). *Perspectives of the life course.* In Glen H. Elder, Jr. (Ed.), *Life Course Dynamics* (pp. 23-49). Ithaca: Cornell University Press.

Elder Jr., G. H. (1994). Time, human agency, and social change: Perspectives on the life course. *Social Psychology Quarterly, 57,* 4-15.

Erikson, E.H. (1950). *Childhood and society.* New York, NY: Norton.

Erikson, E.H. (1959). *Identity and the life cycle.* New York: Inter-national Universities Press.

Floyd, F. J., Haynes, S. N., Doll, E. R., Winemiller, D., Lemsky, C., Burgy, T. M., et al. (1992). Assessing retirement satisfaction and perceptions of retirement experiences. *Psychology and Aging, 7,* 609–621.

Fly, J. W., Reinhart, G. R., & Hamby, R. (1981). Leisure activity and adjustment in retirement. *Sociological Spectrum, 1*(2), 135-144.

Fouquereau, E., Fernandez, A., & Mullet, E. (2001). Evaluation of determinants of retirement satisfaction among working and retired people. *Social Behavior and Personality, 29,* 777–786.

Frankel, R.M., & Devers, K.J. (2000). Study design in qualitative research--1: Developing questions and assessing resource needs. *Education for Health, 13,* 251-261.

Fraser-Thomas, J.L., Cote, J., & Deakin, J. (2005). Youth sport programs: An avenue to foster positive youth development. *Physical Education and Sport Pedagogy, 10,* 19-40.

Gall, T. L., Evans, D. R., & Howard, J. (1997). The retirement adjustment process: Changes in the well-being of male retirees across time. *Journal of Gerontology: Psychological Sciences, 52B,* 110–117.

Girginov, V. (Ed.). (2008). *Management of sports development*. Routledge.

Green, B.C. (2005). Building sport programs to optimize athlete recruitment, retention, and transition: Toward a normative theory of sport development. *Journal of Sport Management, 19,* 233-253.

Green, B. C. (2008). Sport as an agent for social and personal change. *Management of Sports Development,* 130-145.

Green, B.C., & Chalip, L. (1998). Sport tourism as the celebration of subculture. *Annals of Tourism Research, 25,* 275-291.

Green, L. W., & Kreuter, M. W. (2005). *Health program planning: An educational and ecological approach* (4th ed.). New York, NY: McGraw-Hill.

Green, M., & Oakley, B. (2001). Elite sport development systems and playing to win: Uniformity and diversity in international approaches. *Leisure Studies,* 20, 247-267.

Green, J. & Thorogood, N. (2004). *Qualitative methods for health research*. London: Sage Publications, Ltd.

Greene, J.C., Caracelli, V.J., & Graham, W.F. (1989). Toward a conceptual framework for mixed-method evaluation design. *Education Evaluation and Policy Analysis, 11*, 255-274.

Hagemaster, J. N. (1992). Life history: A qualitative method of research. *Journal of Advanced Nursing, 17,* 1122-1128.

Hair, J. F., Black,W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Harrison, T., Angel, J., & Mann, A. (2008). Mexican-American women aging with childhood-onset paralytic polio. *Qualitative Health Research, 18*, 767-774.

Hertzog, C., Kramer, A.F., Wilson, R.S., & Lindenberger, U. (2009). Enrichment effects on adult cognitive development: Can the functional capacity of older adults by preserved and enhanced? *Psychological Science in the Public Interest, 9,* 1-65.

Hillman, C.H., Erickson, K.I., & Kramer, A. F. (2008). Be smart, exercise your heart: Exercise effects on brain and cognition. *Nature Reviews: Neuroscience, 9*, 58-65.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44,* 513–524.

Hobfoll, S.E. (2002). Social and psychological resources and adaptation. *Review of General Psychology, 6,* 307-324.

Hopkins, C.D., Roster, C.A., & Wood, C.M. (2006). Making the transition to retirement: Appraisals, post-transition lifestyle, and changes in consumption patterns. *Journal of Consumer Marketing, 23,* 87-99.

Hornstein, G.A. & Wapner, S. (1985). Modes of experiencing and adapting to retirement. *International Journal of Aging and Human Development, 21,* 291-315.

Hu, L. & Bentler P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6*(1)*, 1-55.

Hutchinson, S.L., Loy, D.P., Kleiber, D.A., & Dattilo, J. (2003). Leisure as a coping resource: Variations in coping with traumatic injury and illness. *Leisure Sciences, 25,* 143-161.

Hylton, K., & Bramham, P. (2008). Models of sports development. *Management of Sports Development*, 41-58.

Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies* (Vol. 19). Princeton, NJ: Princeton University Press.

Iwasaki, Y., & Mannell, R.C. (2000). Hierarchical dimensions of leisure stress-coping. *Leisure Sciences, 22,* 163-181.

Jun, J., Kyle, G.T., Vlachopoulos, S.P., Theodorakis, N.D., Absher, J.D., & Hammitt, W.E. (2012). Reassessing the structure of enduring leisure involvement. *Leisure Sciences, 34,* 1-18.

Kahn, R.L. (1975, June 2). *Memorandum to SSRC Committee on Work and Personality in the Middle Years.* Ann Arbor, MI.

Kahn, R.L. (2002). On "successful aging and well-being: Self-rated compared with Rowe and Kahn." *The Gerontologist, 42*, 725-726.

Keith, T. (2006). *Multiple regression and beyond*. Boston: Pearson Education.

Kilpatrick, M., Hebert, E., & Bartholomew, J. (2005). College students' motivation for physical activity: Differentiating men's and women's motives for sport participation and exercise. *Journal of American College Health, 54,* 87-94.

Kim, J. E., & Moen, P. (2002). Retirement transitions, gender, and psychological well-being: A life-course, ecological model. *Journal of Gerontology: Psychological Sciences, 57B,* 212-222. doi:10.1093/geronb/57.3.P212

King, A.C., Rejeski, W.J., & Buchner, D.M. (1998). Physical activity interventions targeting older adults: A critical review and recommendations. *American Journal of Preventative Medicine, 15*(4), 316-333.

Kleiber, D.A., Hutchinson, S.L., & Williams, R. (2002). Leisure as resource in transcending negative life events: Self-protection, self-restoration, and personal transformation. *Leisure Sciences, 24*, 219-235.

Kleiber, D. A., & Roberts, G. C. (1981). The effects of sport experience in the development of social character: An exploratory investigation. *Journal of Sport Psychology, 2*, 114-122.

Kline, R. B. (2011). *Principles and practice of structural equation modeling*. New York, London: Guilford Press.

Kramer, A.F., & Erickson, K.I. (2007). Effects of physical activity on cognition, well-being, and brain: Human interventions. *Alzheimer's & Dementia, 3,* S45-S51.

Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of Occupational Therapy, 45*(3), 214-222.

Lamb, K. L., Dench, S., Brodie, D. A., & Roberts, K. (1988). Sports participation and health status: A preliminary analysis. *Social Science & Medicine, 27,* 1309-1316.

Langley, D.J., & Knight, S. M. (1999). Continuity in sport participation as an adaptive strategy in the aging process: A lifespan narrative. *Journal of Aging and Physical Activity, 7,* 32-54.

Levinson, D.J. (1980). Toward a conception of the adult life course. In N. Smelser & E.H. Erikson (Eds.), *Themes of love and work in adulthood* (pp. 265-290). Cambridge, MA: Harvard University Press.

Levinson, D.J. (1986). A conception of adult development. *American Psychologist, 41,* 3-13.

Leung, S. Y., & Earl, J. K. (2012). Retirement Resources Inventory: Construction, factor structure and psychometric properties. *Journal of Vocational Behavior, 81,* 171-182.

Lieberman, M.A. (1975). Adaptive processes in late life. In Datan, N. &, Ginsberg, L.H. (Eds.), *Life-span developmental psychology*. New York: Academic Press.

Lipman-Blumen, J. (1976). A crisis perspective on divorce and role change. In Chapman, J.R., & Gates, M. (Eds.), *Women into wives: The legal and economic impact of marriage*. Sage Yearbook in Women's Policy Studies, Vol. 2. Beverly Hills, CA: Sage Publishers.

Lowenthal, M.F., & Haven, C. (1968). Interaction and adaptation: Intimacy as a critical variable. *American Sociological Review, 33,* 20-30.

Lowenthal, M.F., & Chiriboga, D. (1975). Responses to stress. In M.F. Lowenthal, M. Thurnher & D. Chiroboga. *Four stages of life: A comparative study of women and men facing transitions.* San Francisco: Jossey-Bass.

Martin-Matthews, A., & Brown, K.H. (1987). Retirement as a critical life event: The differential experiences of women and men. *Research on Aging, 9,* 548-571.

Maslow, A. (1970). *Motivation and personality* (2nd ed.). New York: Harper and Row.

Matthews, S.H. (1983). Analyzing topical oral biographies of old people: The case of friendship. *Research on Aging, 5,* 569-589.

McAuley, E., Mullen, S.P., & Hillman, C.H. (2013). Physical activity, cardiorespiratory fitness, and cognition across the lifespan. *Social Neuroscience and Public Health,* 235-252. doi: 10.1007/978-1-4614-6852-3_14.

McKendrick, J.H. (1999). Multi-method research: An introduction to its application in population geography. *Professional Geographer, 51*(1), 40-50.

Merriam-Webster. (2014). *Tomboy.* Retrieved from http://www.merriam-webster.com/dictionary/tomboy

Morris, L., Sallybanks, J., Willis, K., & Makkai, T. (2003). Sport, physical activity and antisocial behavior in youth. *Trends and Issues in Crime and Criminal Justice, April.* Canberra: Australian Institute of Criminology

Morse, J. M. (2008). Confusing categories and themes. *Qualitative Health Research, 18*(6), 727-728.

Neugarten, B.L. (1977). Adaptation and the life cycle. In N.K. Schlossberg & A.D. Entine (Eds.), *Counseling adults*. Monterey, CA: Brooks/Cole.

Neugarten, B. L. (1979). Time, age, and the life cycle. *American Journal of Psychiatry, 7,* 887-894.

Nunnally, J.C. (1978). *Psychometric Theory.* New York, NY: McGraw-Hill.

Official Social Security Website. (2013). *Retirement age calculator*. Retrieved from http://www.ssa.gov/pubs/ageincrease.htm

Ory, M., Hoffman, M., Hawkins, M., Sanner, B., & Mockenhaupt, R.(2003). Challenging aging stereotypes: Strategies for creating a more active society. *American Journal of Preventative Medicine, 2*, 164–171.

Palm, J. (1991). *Sport for all: Approaches from utopia to reality*. Schorndorf: Verlag Karl Hofmann.

Parkes, C.M. (1971). Psycho-social transitions: A field for study. *Social Science & Medicine, 5(2),* 101-115.

Petitpas, A. J., Van Raalte, J. L., Cornelius, A. E., & Presbrey, J. (2004). A life skills development program for high school student-athletes. *Journal of Primary Prevention, 24,* 325-334.

Pearson, R.E., & Petitpas, A.J. (1990). Transitions of athletes: Developmental and preventative perspectives. *Journal of Counseling & Development, 69,* 7-10.

Piaget, J. (1962). *Play, dreams and imitation* (Vol. 24). New York: Norton.

Pinquart, M., & Schindler, I. (2007). Changes of life satisfaction in the transition to retirement: A latent-class approach. *Psychology and Aging, 22,* 442-455.

Pooler, D. K. (2011). Pastors and Congregations at Risk: Insights from Role Identity Theory. *Pastoral Psychology, 60*(5), 705-712.

Porter, M. (1985). *Competitive advantage.* New York: Free Press.

Price, C. A., & Balaswamy, S. (2009). Beyond health and wealth: Predictors of women's retirement satisfaction. *International Journal of Aging & Human Development, 68*, 195–214.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon and Schuster.

Quine, S. Wells, Y., de Vaus, D., & Kendig, H. (2007). When choice in retirement decisions is missing: Qualitative and quantitative findings of impact on well being. *Australasian Journal on Ageing, 26*, 173-179.

Ragheb, M. G., & J. G. Beard. (1982). Measuring Leisure Attitudes. *Journal of Leisure Research, 14*, 155-162.

Rikli, R.E. (2005). Movement and mobility influence on successful aging: Addressing the issue of low physical activity. *National Association for Kinesiology and Physical Education in Higher Education, 57,* 46-66.

Rotter, J.B. (1954). *Social learning and clinical psychology*. NY: Prentice-Hall.

Rowe, J.W., & Kahn, R.L. (1998). *Successful aging.* New York: Pantheon Books.

Schlossberg, N.K. (1981). A model for analyzing human adaptation to transition. *The Counseling Psychologist, 9,* 2-18.

Schlossberg, N. K. (1995). *Counseling adults in transitions: Linking practice with theory*. New York: Springer.

Shilbury, D., Sotiriadou, K. P., & Green, B. C. (2008). Sport development. systems, policies and pathways: An introduction to the special issue. *Sport Management Review, 11*(3), 217-223.

Siedentop, D. (1994). *Sport education: Quality PE through positive sport experiences*. Human Kinetics Publishers.

Sinclair, D. A., & Orlick, T. (1993). Positive transitions from high-performance sport. *The Sport Psychologist, 7,* 138-150.

Stambulova, N., Alfermann, D., Statler, T., & CôTé, J. (2009). ISSP position stand: Career development and transitions of athletes. *International Journal of Sport and Exercise Psychology, 7*(4), 395-412.

Stambulova, N., Stephan, Y., & Japhag, U. (2007). Athletic retirement: A cross-national comparison of elite French and Swedish athletes. *Psychology of Sport and Exercise, 8,* 101-118.

Stewart, A.J., Sokol, M., Healy, J.M., & Chester, N.L. (1986). Longitudinal studies of psychological consequences of life changes in children and adults. *Journal of Personality and Social Psychology, 50,* 143-151.

Strawbridge, W.J., Wallhagen, M.I., & Cohen, R.D. (2002). Successful aging and well-being: Self-rated compared with Rowe and Kahn. *The Gerontologist, 42,* 727-733.

Tahmaseb-McConatha, J., Volkwein-Caplan, K., & DiGregorio, N. (2011). Culture, aging, and well-being: The importance of place and space. *The International Journal of Sport and Society, 2,* 41-48.

Thoreau, H.D. (2010). *Walking.* Madison, WI: Cricket House Books.

Valdez, C. (2013). Carmelo Flores Laura, Aymara herder, may be oldest living person ever. *Huffington Post.* Retrieved from http://www.huffingtonpost.com/2013/08/16/carmelo-flores-laura-aymara-bolivia-oldest-man-person-ever_n_3769218.html

Van Solinge, H., & Henkens, K. (2008). Adjustment to and satisfaction with retirement: Two of a kind? *Psychology and Aging, 23,* 422-434.

Vygotsky, L. (1978). *Mind and society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Wang, M., Henkens, K., & van Solinge, H. (2011). Retirement adjustment: A review of theoretical and empirical advancements. *American Psychologist*. doi: 10.1037/a0022414

Wang, M., & Hesketh, B. (2012). *Achieving well-being in retirement: Recommendations from 20 years of research*. Bowling Green, OH: Society for Industrial and Organizational Psychology, Inc.

Wang, M., & Shultz, K.S. (2010). Employee retirement: A review and recommendations for future investigation. *Journal of Management, 36,* 172-206.

Warburton, D.E.R., Nichol, C.W., & Bredin, S.S.D. (2006). Health benefits of physical activity: The evidence. *Canadian Medical Association Journal, 174,* 801-809.

Warner, S., & Dixon, M.A. (2011). Understanding sense of community from the athlete's perspective. *Journal of Sport Management, 25,* 257-271.

Wells, Y., deVaus, D., Kendig, H., Quine, S., & Petralia, W. (2006). Healthy retirement project: Technical report. Retrieved from http://www.latrobe.edu.au/alpc/projects/hrp.pdf

Whetton, D. (1989). What constitutes a theoretical contribution? *Academy of Management Review, 14,* 490-495.

Wong, J., & Earl, J. K. (2009). Towards an integrated model of individual, psychosocial, and organizational predictors of retirement adjustment. *Journal of Vocational Behaviour, 75*, 1–13.

Wylleman, P., Alfermann, D., & Lavallee, D. (2004). Career transitions in sport: European perspectives. *Psychology of Sport and Exercise, 5,* 7-20.

Wylleman, P., & Lavallee, D. (2003). A developmental perspective on transitions faced by athletes. In M. Weiss (Ed.), *Developmental Sport and Exercise Psychology: A lifespan perspective*. Morgantown, WV: Fitness Information Technology.

Zhan, Y., Wang, M., Liu, S., & Shultz, K. S. (2009). Bridge employment and retirees' health: A longitudinal investigation. *Journal of Occupational Health Psychology, 14,* 374–389.