THE ROLES OF LEISURE ATTITUDES AND SELF-EFFICACY ON ATTITUDES TOWARD RETIREMENT AMONG RETIREES: A SENSE OF COHERENCE THEORY APPROACH

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Recreation, Sport and Tourism
in the Graduate College of the
University of Illinois at Urbana-Champaign, 2016

Urbana, Illinois

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ABSTRACT

Retirement has become a common phenomenon in our society. However, it still is a major life transition especially to older adults, since it affects their lives in many ways. Antonovsky (1987) asserted that coping well with such a significant transition depends on sense of coherence (SOC), or how we view the situation/world. While diverse resources could determine SOC, the relationships between SOC and leisure related resources have been overlooked. Therefore, this study explored the roles of leisure attitudes and leisure self-efficacy on attitudes toward retirement using SOC theory. Moreover, it examined how retirement decision (retired voluntarily or forcedly) influenced the relationships among the main factors.

In this study, a total of 423 respondents who are aged between 55 and 75, retired from their primary career and now residing in Illinois State were recruited through an on-line survey venue. The respondents were asked to complete the on-line questionnaire including the questions related to demographic information, leisure attitudes (LA), leisure self-efficacy (LSE), sense of coherence (SOC) and attitudes toward retirement (ATR). The data was analyzed employing structural equation modeling (SEM) and an Independent T-Test using both SPSS and AMOS software.

The results showed that leisure variables (i.e., LA and LSE) were substantial resources for the respondents' SOC and ultimately contributed to a positive ATR. Moreover, SOC played a partial mediator role between leisure variables and ATR, which indicates that it is a prominent determinant of ATR. Lastly, voluntary retirees showed (statistically?) significantly higher scores on all the main factors and were more likely to utilize leisure sources actively than forced retirees. This study contributes to the SOC and leisure literature as it expands SOC theory by applying it to different population and context. Moreover, it confirmed the possible relationship

between SOC and ATR, the reliabilities and validities of the main factors as well as their components. Furthermore, this study not only sheds the light on the importance of leisure in retirement, but also highlights the necessity of promoting leisure-focused retirement planning programs.

ACKNOWLEDGMENTS

While there are so many people to thank, I would like to express my deepest appreciation to my advisor Dr. Payne. Whenever I was lost and unsure of my next step throughout my graduate life, she was always there for me and spared time to help me. Not only I learned how to become a researcher, I also could learn what kind of advisor I want to be to my future students from Dr. Payne. I truly am happy to be her student. Also, I would like to express sincere thanks to my dear committee members, Dr. Shinew, Dr. Ostler, Dr. Liechty and Dr. Berdychevsky. With their in-depth experiences, they helped me never to drop the essential of research and encouraged me to expand my curiosity and creativity at the same time. They were there every step of the way, always being patient and supportive. I could make this dissertation happen because of you. Thank you.

In addition, I want express special thanks to my friends, colleagues, and professors in the US and Korea. Your words and encouragements make me move forward and never back out.

Last but not certainly the least, I would like to express my greatest appreciation to my family. I could be here because of your endless care and love. I hope you know how much I appreciate it and feel blessed to have your support. I want to also thank my little brother Jungsup who always stands beside me to cheer me on. Plus, I want to thank my grandfather and grandmother who made it possible for me to come to the US. I hope you feel proud of me up there, grandfather.

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CHAPTER 1

INTRODUCTION

In 2012, the proportion of older adults in the U.S. reached 13.7% of the total U.S. population, which is the threshold of an Aged Society (Coulmas, 2007; Ortman, Velkoff, & Hogan, 2014). This increasing trend is gaining a strong momentum as American baby boomers (born between 1946 to 1964), estimated at 76 million, began to enter later adulthood since 2011. Normally, this large number of older adults begins their later adulthood with retirement, since many countries including the U.S. have used age 65 as an official retirement age (Majer, Nusselder, Mackenback & Kunst, 2011). Therefore, the retirement transition has been one of the primary interests among many researchers (e.g., Gall, Evans & Harward, 1997; Kim & Moen, 2002; McLean, 2012).

Until the 19th century, retirement was not a common phenomenon in the U.S. Before the civil war, approximately 70% of older adults age 65 and over were in the workforce (Atchley, 1982a) and people typically worked until they could no longer work because of declining health or death (Palmore, 1971). However, as we entered the industrialized era, retirement became more prevalent because a) fewer workers were needed due to increased productivity; b) older adults were considered to be obsolete, since they were less likely to keep pace with a fast-changing and globalized world and had more health problems; and c) employers were willing to replace relatively high-wage workers (i.e. older adults) with low-wage workers (i.e. young adults) (e.g., Kuen, 1995). Furthermore, the development of retirement pensions accelerated the retirement phenomenon by enhancing a retiree's financial security (Atchley, 1982a).

As retirement has become a common phenomenon in our society, it is no longer regarded as an unexpected life transition, but an ordinary life event (Lehr et al., 1998; Turner, Bailey, &

Scott, 1994). Despite the prevalence of retirement, it is still acknowledged as a major life transition, since it affects peoples' lives in many ways (Barnett, Guell & Ogilvie, 2012; Long, 1987; Szinovacz, 1980; Taylor-Carter, Cook & Weinberg, 1997). First, because identity is often developed through work roles (Stone, 2003; Szinovacz & De Viney, 1999), some researchers have posited that identity changes are inevitable when older adults exit the work force (e.g., Burgess, 1960; Miller, 1965). Most of the time, identity may be negatively affected, and they may experience decreased self-respect and status, since they regard themselves as less useful (e.g., Thompson, 1983; Szinovacz & De Viney, 1999). Second, when it comes to financial status, the primary source of earnings shifts from income to pension, retirement savings, social security or a combination of these sources (Schellenberg, Turcotte & Ram, 2005). Due to the decrease of control over their income, many retirees have concerns about financial insecurity during the retirement transition and post-retirement (Atchley, 1982a). Third, several researchers asserted that retirement is associated with health status, and they have mixed ideas on it. Some posit that health status contributes to the retirement decision, while others postulate retirement could be a time to recover their health from onerous work they have done (Coe & Zamarro, 2011; Kimmel, Price & Walker, 1978; Taylor & Shore, 1995). Fourth, the central axis of social relationships changes from the workplace to people with whom they are close to, such as family members and close friends (Schellenberg, Turcotte & Ram, 2005). Considering the importance of social relations during post-retirement, this shift may be a significant change to retirees (Shaw, Krause, Liang & Bennett, 2007). Fifth, due to extended free time and dropping work roles after retirement, retirees are more likely to reshape their lifestyle (Haworth, 1986). In general, lifestyle encompasses not only how they view the world, but also how they manage time and money (Hawkins, Best & Coney, 1995; Kaynak & Kara, 2001). Eventually, people's behaviors offer

insight into their lifestyle. Specifically, the nature of leisure engagement (i.e., what, how, why) may change due to lifestyle changes brought on by retirement.

To understand how well retirees cope with the significant transformation in many aspects of life during retirement, many researchers have used attitudes toward retirement as a primary indicator (e.g., Braithwaite & Gibson, 1987; Foster, 2008; Turner et al., 1994; Van Dalen & Henkens, 2005). This is because an association between the connection of attitude and behavior, for example based on the theory of planned behavior and the attitude-engagement model (Ajzen, 1991; Harrison, Newman, & Roth, 2006). In particular, attitudes toward retirement are closely associated with the whole retirement transition process from retirement decisions to retirement preparation behaviors and retirement adaptation (e.g., Adams, Prescher, Beehr & Lepisto, 2002; Foster, 2008; Mutran, Reitzes & Fernandez, 1997). For example, an individual with a positive attitude toward retirement is more likely to decide to retire, engage with retirement planning/preparation programs, and adapt better to the retirement transition.

Antonovsky (1987), a medical sociologist, introduced Sense of Coherence (SOC) theory and asserted that coping well with such potential stressful situations depends on how we view the situation/world. SOC theory highlights three main components, which are comprehensibility, manageability, and meaningfulness. Comprehensibility refers to how an individual understands the internal and external stimuli on the event (Strümpfer, 1995). Manageability refers to how an individual perceives they would be able to cope with the event. Meaningfulness refers to how an individual perceives the importance of the event. SOC theory posits that when an individual perceives high comprehensibility, manageability, and meaningfulness, he or she would be expected to cope positively with demanding events. In fact, SOC not only showed a positive relationship with attitudes toward retirement, but also quality of life in diverse samples including

older adults and people with disabilities (e.g., heart diseases, cancer, HIV infections) (e.g., Anson, Antonovsky, Sagy, & Adler, 1989; Antonovsky, Sagy, Adler, & Visel, 1990; Cederfjall, Langius-Eklof, Lidman, & Wredling, 2001; Jakobsson, 2002; Motzer & Stewart, 1996). Furthermore, the association between SOC and quality of life is supported by qualitative studies and longitudinal studies as well (e.g., Jakobsson, Hallberg, & Loven, 1997; Karlsson, Berglin, & Larsson, 2000).

Antonvsky (1979) stated that the level of SOC is determined by Generalized Resistance Resources (GRRs). GRRs exist in various forms from the material form (e.g., income) to immaterial form (e.g., social support, attitude, self-efficacy), and how an individual utilizes GRR impacts levels of SOC (Ahola, 2012). Among numerous GRRs, this study paid attention on leisure variables (i.e., leisure attitudes and leisure self-efficacy) as a critical GRR for retirees for the following reasons. First, notably, retirement is characterized as a period during which retirees are assumed to have more time and opportunities to engage with leisure activities (Parker, 1987; Vienne, 2004). Second, leisure can facilitate the retirement transition process by contributing to aspects of retirees' life such as identity, social relationships and health (e.g., Dionigi, 2002; Dupuis & Alzheimer, 2008; Hesketh, Griffin, & Loh, 2011; Iso-Ahola & Mannell, 2004). Lastly, baby boomers, the growing cohort within the retiree population, are more eager to seek self-fulfillment and productive activities after retirement (McCormack, Cameron, Campbell & Pollock, 2008) and pay close attention to their health and well-being (Cochran, Rothschadl, & Rudick, 2009).

More specifically, leisure attitudes and leisure self-efficacy are examined due to their importance on the actual leisure behavior and experience. Leisure attitudes, on one hand, is key to inherent leisure benefits (Mobily, 1984). Mobily (1984) asserted that when an individual had a

favorable attitude toward leisure, he or she would be more likely to obtain the benefits of leisure engagement. This is the reason many leisure education programs have set "altering individuals' attitudes toward leisure" as their primary goal (Tinsley & Tinsley, 1981). Moreover, leisure attitudes are key determinant of both leisure participation and satisfaction (Brown & Frankel, 1993; Hawkins, Foose & Binkley, 2004; Ragheb & Tate, 1993; Searle & Iso-Ahola, 1988). Hsieh (1998), for example, explored the relationships among leisure attitudes (i.e. the cognitive and affective components), motivation, participation and satisfaction among 503 college students. The author found that both leisure attitudes and participation had a positive effect on leisure satisfaction. Specifically, the affective component of LA was directly related to leisure satisfaction, and it was the second strongest variable after leisure participation.

Along with LA, self-efficacy has shown a strong association with leisure behaviors (e.g., Orsega-Smith et al., 2007; Sylvia-Bobiak & Caldwell, 2006). Hoff and Ellis (1992) stated that when individuals encounter new situations, they tend to compare their stored information with the current situation to make a decision or engage in behavior. During this process, self-efficacy plays a pivotal role in enhancing motivation and encouraging a given behavior. Some researchers postulate that self-efficacy could even play a stronger role in stimulating leisure engagement than leisure attitude (Chiu, 2009). Furthermore, since individuals with high self-efficacy believe they have the ability to execute the specific task, they tend to give significant effort and perseverance to overcome challenges encountered in the performance of a specific task (Bandura, 1986; Locke & Latham, 1990).

In addition, leisure attitudes and leisure self-efficacy have potential connections with SOC. Leisure attitude is defined as how an individual perceives, feels and acts regarding leisure (Neulinger, 1974). It involves cognitive, affective and behavioral aspects. While the cognitive

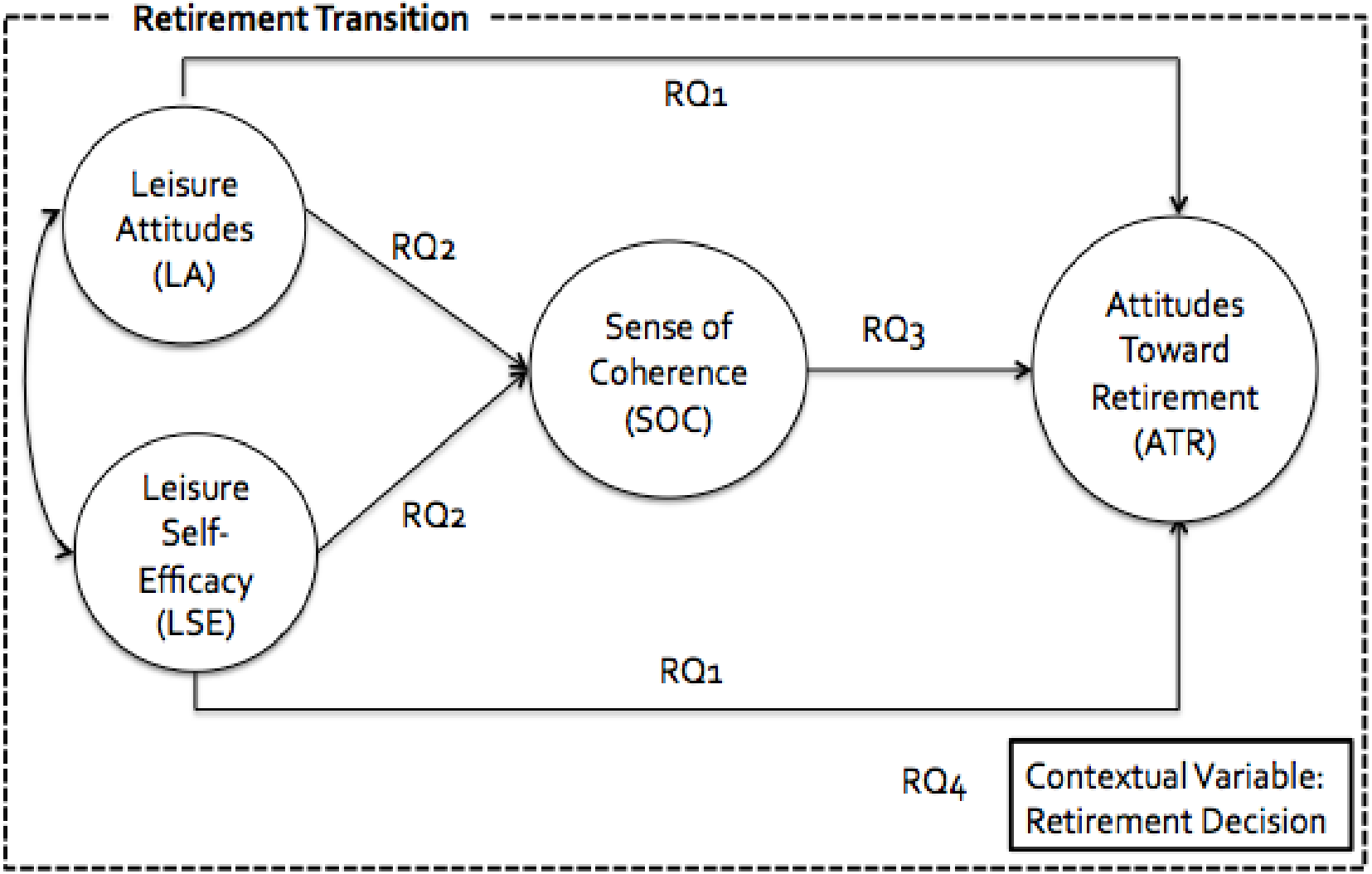
dimension focuses on knowledge and beliefs about leisure, the affective and behavioral dimensions focus on feelings and actions related to leisure, respectively. Leisure attitudes could be associated with both the comprehensibility and meaningfulness dimensions of SOC, since it deals with recognition of the stimuli of the event and perceived importance of the event. On the other hand, leisure self-efficacy could be connected with the manageability dimension of SOC. Self-efficacy is defined as "people's judgment of their capabilities to attain designated types of performances" (Bandura, 1986, p.391). In other words, self-efficacy measures an individual's perception of coping ability akin to the manageability of SOC.

Despite the importance of leisure attitudes and self-efficacy as GRRs and the possible connections of leisure attitudes and self-efficacy with SOC and attitudes toward retirement, very little research has been done in this domain, especially among individuals who are retired. Therefore, the overall aim of this study was to explore and understand the relationships among leisure attitudes and self-efficacy and their association with SOC and attitudes toward retirement (Figure 1). Specifically, it examined how important leisure variables are during the retirement transition and whether the sense of coherence acts as a mediator between leisure variables and attitudes toward retirement.

To achieve the purpose of the study, four research questions were examined: a) Do leisure variables (i.e., leisure attitudes and leisure self-efficacy) shape attitudes toward retirement?; b) Do leisure variables (i.e., leisure attitudes and leisure self-efficacy) shape sense of coherence?; c) Does sense of coherence serve as a mediator between the leisure variables and attitudes toward retirement?; and d) does the retirement decision (voluntary or involuntary) influence the retirement transition? Based on the research questions, a total of 11 hypotheses were tested: 1) Leisure attitudes has a positive association with attitudes toward retirement; 2)

Leisure self-efficacy has a positive association with attitude towards retirement; 3) Leisure attitudes has a positive association with sense of coherence; 4) Leisure self-efficacy has a positive association with sense of coherence; 5) Sense of coherence has a positive association with attitudes toward retirement controlling the effect of leisure attitudes and leisure self-efficacy; 6) The impact of leisure attitudes on attitudes toward retirement is less after controlling the effect of sense of coherence; 7) The impact of leisure self-efficacy on attitudes toward retirement is less after controlling the effect of sense of coherence; 8) Voluntary retirees score higher on LA, LSE, SOC, and ATR than forced retirees; 9) Voluntary retirees more actively utilize LA, LSE, and SOC than forced retirees.

Figure 1: The Proposed Model of The Study



CHAPTER 2

LITERATURE REVIEW

Retirement

The Senior Population Explosion

The increasing number of adults age 65 and over is a growing global trend. However, the issue is more important for developed countries such as the U.S., since approximately 70% of the world's older population will be concentrated in these countries by 2030 (He et al., 2005). Particularly in the U.S., as young male soldiers returned from World War II, a large number of new babies, the baby boomer generation, were born between 1946 and 1964. They are noted as the largest generation of Americans in U.S. history, estimated to comprise 78 million people (Toossi, 2005). Because of the baby boomers, 20% of the total U.S. population is expected to be age 65 and over by 2030 (He et al., 2005). Beginning in 2011, the leading edge of the baby boomers entered into retirement as they reached age 65. This considerable number of seniors is expected to experience a more prolonged post-retirement than any other previous generation due to the combination of an extended life expectancy and early retirement trend (e.g., O'Meara, 1977; Rosenkoetter & Garris, 2001). Therefore, understanding the gateway to this extended later life, the retirement process, is an important step to comprehend older adults' quality of life.

History of Retirement

In the agricultural era, retirement was not a common phenomenon, since not many people were able to live past their mid-sixties (Fischer, 1978). It was natural for people to work until they could no longer work or until they died, since older adults' experience and knowledge were likely to be valued and respected especially in the agrarian era (Koenig, 2002). However, as the U.S. entered the industrial era, retirement became more prevalent in our society. During this

period, bureaucracy created a new dominant societal structure emphasizing efficiency and productivity of tasks (Atchley, 1982b). In this sense, youth, energy, and mobility received more recognition than stability, experience and wisdom (Dychtwald, 2000). Moreover, since older people were likely to be higher paid than younger employees, and with a considerable number of immigrants to the U.S., older workers looked even less productive (Atchley, 1982b; Guillemard & Rein, 1993). This social atmosphere spawned a trend of squeezing older worker from the workplace (Achenbaum, 1978). Furthermore, as the Depression-era emerged, employers were under pressure to cut the size of their labor forces to maintain their businesses, and older workers tended to be the victims of those cutbacks (Graebner, 1980). Hence, both private and public institutions began to develop pension plans to relieve some of the retirees' anxiety and financial insecurity. However, at the same time, pensions also provided a justification for pursuing the mandatory retirement of older workers and replacing them with younger workers at relatively lower wage (Atchley, 1982b; Lazear, 1979). Fortunately, however, as the Age Discrimination in Employment Act passed in 1967, at least seemingly, retirees could gain a legal basis to protect themselves from age discrimination and to secure their choice to retire.

Definitions of Retirement

An uncritical view of retirement sees it as merely withdrawing from one's position of active work. However, retirement is too complex a phenomenon to be regarded as simply leaving the workforce (Denton & Spancer, 2009). Indeed, researchers have acknowledged that defining retirement is a conundrum, and they hardly agree (Ekerdt & DeViney, 1990; Weiss, 2005). Atchley (1982b) noted that retirement could be viewed differently depending on the lens through which we are looking. From an individual standpoint, retirement can be understood as recovering from an arduous lifetime of employment. The employer's perspective sees retirement as an

opportunity to make changes in the workforce and replace older workers with younger ones. For society and unions, retirement is considered as managing the unemployment rate and creating employment opportunities, respectively. However, the majority of leisure and aging literature concentrates on the perceptions of retirees to understand the retirement phenomenon (e.g., Fly, Reinhart & Hamby, 1981; Nimrod, 2007). This is because while surrounding environments do influence our view of retirement, the significant differences depend on how retirees perceive and experience their retirement (Beehr, 1986).

Due to the complexity of this stage of life, a couple of approaches have been applied to define retirement (Palmore, Fillenbaum & George, 1984; Weiss, 2005). In general, many researchers have described retirement from an economic perspective, since it is closely related to the career. Atchley (1976), for example, defined retirement as

> "a condition in which an individual is forced or allowed to be employed less than full time (whatever that may mean in his particular job) and in which his income is derived at least in part from a retirement pension earned through prior years of service as a jobholder. Both of these conditions must be met for an individual to be retired (p.1)."

In other words, the economic perspective emphasizes the individual's withdrawal from the workforce and whether he or she receives a pension to distinguish retirees from workers. However, as returning to the workforce after retirement has become a more common phenomenon (Denton & Spencer, 2009), this definition was amended to stipulate less than 35 hours per week or 36 weeks per year in the workforce to satisfy retirement status (Maestas, 2010).

Despite this effort, the economic definition has been criticized for excluding those who perceive themselves as retired regardless of working hours. Thus, some researchers use a subjective perspective to define retirement (Palmore, Fillenbaum & George, 1984). Since a subjective definition relies on a retiree's perception, it directly asks individuals about their retirement status and whether they perceive themselves as retired. Moen (1996) highlighted the importance of the subjective perceptions of retirees, since retirement is not only an objective life stage transition, but also a subjective developmental, social and psychological transformation. However, the subjective definition is limited, and since it relies solely on the retiree's perception, retirement would be understood differently by different people. This might make it difficult for researchers to determine an occupational definition of retirement and to understand retirees' retirement experience. Therefore, researchers such as Maestas (2010) have suggested combining an objective definition with a subjective definition (Coe & Zamarro, 2011) could be the most efficient way to define retirement at this moment.

Along with these definitions, retirement can also be classified diversely. Beehr (1986), for example, suggested that retirement could take different forms, considering spontaneity (whether retirement is voluntary or involuntary), age (early or on-time) and work status (complete or partial). The combination of these three domains create the possibility of eight different retirement types: a) early, voluntary and complete retirement, b) early, voluntary and partial working; c) early, involuntary and complete retirement; d) early, involuntary and partial working; e) on-time, voluntary and complete retirement; f) on-time, voluntary and partial working; g) on-time, involuntary and complete retirement; and g) on-time, involuntary and partial working. Denton and Spencer (2009), on the other hand, classified retirement based only on the financial aspect. Retired individuals may be a) completely disengaged from the labor

force; b) reducing their working hours and earnings; c) working and earning below a minimum cutoff; d) receiving financial support from pensions; e) exiting from the main employer; f) assessing them as retired; or g) some combination of these types. Such different classifications indicate the complexity of retirement. While there were some differences in how and degree of detail, they shared the idea that it is illogical to interpret retirement as single form life event, since retirement can be influenced by various factors and create different consequences for the retirement experience (Atchley, 1982b).

Another notable characteristic of retirement is that it is a continuing process. Minkler (1981) asserted that the retirement process begins when an individual starts to make plans and decisions for a post-work life, and it continues until death. Atchley (1988) supported this idea and identified 8 stages of the retirement process: a) preparation phase; b) retirement as an event—the honeymoon phase; c) the retirement routine period; d) rest and relaxation; e) disenchantment; f) reorientation; g) routine and h) termination. The preparation phase is when an individual recognizes that retirement is near and begins to picture their retirement life and prepare for it. Then, after the actual retirement, most retirees enter a honeymoon phase. In other words, they tend to enjoy their freedom from onerous work, and they are buoyed up by the fact that they have free time to do whatever they want to do. Once they pass the honeymoon phase, however, retirees gradually become accustomed to the changes and develop a daily retirement routine. Such stable retirement routines allow retirees to rest and experience relaxation. Ironically, their accustomed lifestyle takes the retirees to a disenchantment period that encourages them to seek new things. After reorienting themselves, retirees develop new retirement routines, allowing them to more fully accept their retirement. Retirement only terminates with the death of the individual. These stages of retirement have been highlighted,

since retirees view retirement differently depending on what stage they are in (Atchley, 1976; Sharpley, Gordon, & Jacobs, 1996). Thus, some researchers point out the necessity of longitudinal studies for retirement research (Beehr, 1986; Kim & Moen, 2002).

Attitudes Toward Retirement

In general, attitudes toward retirement are understood as how individuals prefer, like, or conceive the retirement process. In the past, negative attitudes toward retirement were prevalent in our society. Especially in the west, a strong work ethic dominated, so that being productive and putting work at the center of one's life was accepted as common. In this sense, withdrawal from the workforce was regarded as being unproductive and less useful. Retirement was also equated with old age (Costa, 1998). It was believed that older people lacked physical ability, experienced functional difficulties and were unable to communicate with others (Graebner, 1980). These attitudes toward retirement were assumed to negatively affect the psychosocial domain of retirees, cause psychological distress and loneliness and make retirement a stressful event (Atchley & Robinson, 1982; Dave, Rashad, & Spasojevic, 2008; Kim & Moen, 2002). However, these negative connotations have been tempered by emerging positive attitudes (Carpenter & Patterson, 2004; Thang, 2005). Retirement now tends to be regarded as a reward for a lifetime of work and a time of entitlement for leisure and enjoyment of life (McGuire, Boyd & Tedrick, 2004). It is viewed as a time for extending one's life in different directions in order to make it more meaningful (Crawford, 1971). In fact, a two-year longitudinal study by Reitzes, Mutran, and Fernandez (1996) found that retirees are less depressed and show improvement in self-esteem after retirement.

However, due to the complexity of attitudes toward retirement, Anson, Antonovsky, and Sagy (1989) suggested the necessity of examining it in more detail. They emphasized the

necessity of understanding multiple aspects of retirement including gains and losses. They posited that attitudes toward retirement could be classified into four dimensions: gains from leaving work; gains from retirement; losses from leaving work; and losses from retirement, since retirement is not affected by just gains or losses. For example, an individual might perceive losses from leaving work by losing his work role or social networks at work, while he could perceive gains from retirement by spending more time with family and enjoying leisure activities. In contrast, an individual might perceive gains from leaving work by being released from work pressure, while he perceives losses from retirement by not having enough income and being isolated from society. Therefore, when an individual has scored high on gains from retirement, and gains from leaving work, while low on losses from retirement and leaving work, he or she was considered to have a positive attitude toward retirement

Attitudes toward retirement are a significant barometer of the retirement transition, since it is an important psychological factor to comprehend the overall process (Wang & Shi, 2014). First, attitudes toward retirement have a positive association with retirement decisions (Adams et al., 2002; McPherson & Guppy, 1979; Turner et al., 1994). This is supported by the theory of planned behavior (Ajzen, 1991). It posits that attitude elicits specific behaviors by stimulating behavioral intention, a motivational factor. Indeed, van Dam, van der Vorst, and van der Heijden (2009) examined the early retirement intentions of 346 older Dutch employees applying the theory of planned behavior. The findings indicated that attitude toward early retirement was the second most important predictor of retirement intention after spouse subjective norm. Second, attitudes toward retirement and retirement planning engagement showed a reciprocal relationship (Atchley, 1991; Hershey, Henkens, & Van Dalen, 2007; Taylor & Doverspike, 2003). In other words, people who were more actively engaged in planning for retirement had better attitudes

toward retirement. Mutran et al. (1997), for example, conducted a longitudinal study (from 1992 to 1994) among 753 participants to understand attitudes toward retirement and influential factors. They found that the participants who have positive attitudes toward retirement were more likely to engage with the retirement planning process (e.g., discuss retirement with others, read about retirement, attend retirement-related programs, and actively plan for retirement). Specifically, retirement planning was the second strongest predictor of attitudes toward retirement in 1994 followed by attitudes toward retirement in 1992. Third, attitudes toward retirement were a pivotal indicator of satisfaction with retirement adaptation and post-retirement life. Furthermore, attitudes toward retirement were associated with health and well-being in later life (Kimmel et al., 1978; Lakra, Ng & Levy, 2012). Foster (2008) recruited 168 individuals who planned to retire within 5 years to explore the predictors of wellness including attitudes toward retirement. Among the predictors, attitudes toward retirement and depression were the two significant predictors of wellness among people nearing retirement. Specifically, a positive attitude toward retirement was expected to mitigate the anxiety and depression caused from the retirement process (Fretz et al., 1989). Moreover, findings from Lakra, Ng and Levy's (2012) longitudinal study indicated that participants with a positive attitude toward retirement lived significantly longer than participants with a negative attitude toward retirement. The effect of attitudes toward retirement still held when they controlled for demographic variables (i.e., age, health, socio-economic status, and work status).

Influential Factors. Several variables are said to influence the retirement transition including attitudes toward retirement. In general, health and financial status are viewed as the most important indicators of the retirement transition and attitudes toward retirement (e.g., Mutran, Reitzes, & Fernandez, 1997; Wang, 2007). For example, Hunter, Wang, and Worsley

(2007) did focus groups on Australian baby boomers to examine their retirement readiness. They noted that finance and health stood out as the main concerns from the interviewees followed by food and nutrition. Financially, the participants were worried about the vagueness of financial inflow and outflow during retirement, and they were worried about losing control of their health. Moreover, an individual who was married (Mutran et al., 1997), had less work commitment (Abel & Hayslip, 2001; Turner et al., 1994) and was engaged with retirement planning programs was more likely to cope better with the retirement transition and have positive attitudes toward retirement.

In addition to the above factors, two factors are emphasized in this study. One is the retirement decision, whether an individual has retired voluntarily or involuntarily. This retirement decision has received significant attention from researchers due to its influence on the retirement transition. Many researchers agree that individuals who retired voluntarily are more likely to be satisfied with their retirement and adjust well with the transition (e.g., Gall et al., 1997; Hershey & Henkens, 2014; Kimmel, Price & Walker, 1978; Reitzes & Mutran, 2004). Shultz, Morton, and Weckerle (1998), for example, examined 992 retirees regarding the factors influencing early retirement decisions and adjustment. They noted that the participants who believed they retired voluntarily showed significantly higher health perceptions, retirement satisfaction, and life satisfaction, while they rated lower levels of depression compare to the participants who retired involuntarily. Also, Hershey and Henkens (2014) conducted a 6-year longitudinal study on 1,388 older Dutch workers and found that older adults who voluntarily retired showed significantly higher life satisfaction than not only the involuntary retirement group, but also older adults still in the workforce. On the other hand, some previous studies revealed that forced retirees are more likely to engage in unhealthy behaviors such as smoking,

alcohol consumption and reducing physical activities (e.g., Falba, Teng, Sindelar, & Gallo, 2005; Henkens, van Solinge, Gallo, 2008).

The other important factor in retirement is leisure. It is also associated with attitudes toward retirement and the retirement transition (e.g., Dorfman, 1992; Gibson, Ashton-Shaeffer, Green & Autry, 2003). Especially, as leisure is considered as a reward for their life-long work, the increased leisure time for retirees is also viewed more positively than the past (Gibson & Singleton, 2012). In fact, Poitrenaud, Vallery-Masson, Valleron, Demeestere and Lion (1979), for instance, examined the predictors of pre-retirement attitudes toward retirement (PATR) among French pre-retired managers and top executives. They noted that current leisure engagement was a significant predictor of PATR. Also, Beehr (1986) stated that pre-retirees' leisure orientation would have a "pull" effect on their retirement decision regardless of current leisure engagement. This indicates that leisure orientation could be positively associated with attitudes toward retirement. This was also supported by Gibson, Ashton-Shaeffer, Green and Autry's (2003/2004) study. They used interviews to examine the leisure and retirement perception of retirement-aged women. The results indicated that informants who have positive attitudes toward leisure are more likely to adjust well to the retirement transition.

Reasons for Retirement

With society and technology advancing at a dramatic pace, the pervasive stereotypical view of older adults in our society includes beliefs such as older adults are relatively weak and slow learners and less likely to adapt to new changes (Chiu, Chan, Snape & Redman, 2001). Hence, older adults are often at the front of the line for layoffs or involuntary retirement. In addition to this social atmosphere, several other factors affect the retirement decision of older adults: personal factors, job-related factors, and psychological factors (Taylor & Shore, 1995).

Among the personal factors, the most common reasons to retire are financial status and health condition (Kimmel, Price, & Walker, 1978; Palmore, George, & Fillenbaum, 1982). Financial status is very important. Many researchers have noted that pre-retirees are more willing to retire when they think they are financially ready. Moreover, many individuals are eager to retire if they are financially prepared, regardless of age (Hooyman & Kiyak, 1993). Therefore, when individuals believe that retirement is a financially better decision considering their current wages and the public and/or private pensions they receive after retirement, they often prefer to retire rather than continue to work. Health conditions also tend to affect the retirement decision. This is not surprising, since poor health can sabotage workers' best performance, causing dissatisfaction in both employers and themselves (Post, Schneer & Ritman, 2013). In fact, Dwyer and Mitchell (1999) found that individuals who perceive themselves as unhealthy often opt for an earlier retirement. Also, since the lack of good health is a socially acceptable reason for retirement, retirees are more likely to use health condition as a reason for retirement to justify their retirement (Perlmutter & Hall, 1985).

Job-related factors are another important determinant of the retirement decision. These factors include job constraint, job commitment, job pressure/challenge, flexibility of work and job discrimination (McPherson & Guppy, 1979; van Solinge & Henkens, 2014; Taylor & Shore, 1995). In particular, job satisfaction has been frequently examined as a significant determinant of the retirement decision. While few researchers asserted that job satisfaction has nothing to do with the retirement decision (Topa, Moriano, Depolo Alcover, & Morales, 2009), many researchers posited that job satisfaction is a crucial indicator of the retirement decision (Hooyman & Kiyak, 1993; Mein et al. 2000). In fact, Sibbald, Bojke, and Gravelle (2003) conducted a national survey of the relationship between job satisfaction and retirement intentions

among English general practitioners. The authors found that reduction in job satisfaction was the main reason the participants intend to quit the job.

While psychological factors could include an individual's perception on factors beyond personal and job-related factors, leisure variables could be valuable factors to examine particularly for retirees. This is because retirement offers a considerable free time for retirees to enjoy leisure activities and moreover, baby boomers, the future dominant population of older adults, are more likely to participate in productive self-fulfillment activities (McCormack et al., 2008) and interested in health and well-being than previous generations (Cochran, Rothschadl, & Rudick, 2009; Todd, 2004). In fact, previous literature noted that attitudes toward leisure are a significant predictor of the retirement decision (e.g., Floyd et al., 1992; Shultz, Morton & Weckerle 1998). According to Beehr's (1986) model, a positive attitude toward leisure shows a positive association with the retirement decision. Indeed, the most frequently stated reason for retiring is to enjoy life after retirement, and this attitude contributes to retirement satisfaction in the long run. Furthermore, Mobily (1984) claims that a positive leisure attitude helps to fully experience the advantages of leisure benefits such as feelings of competence, self-esteem and identity formation (Glasser, 1972; McPherson & Guppy, 1979; Seligman, 1975). Therefore, more diverse leisure variables including leisure attitudes need to assess to understand the retirement transition process.

Consequences of Retirement

If we assume that individuals begin their working career in their early to mid 20's, we expect them to devote approximately 40 years to the workplace. This is over a third of their lives, considering the life expectancy in the U.S. today. Since individuals devote a significant amount of time in the workplace, retiring is assumed to cause multiple consequences for them. First,

many researchers posit that retirement influences the identity of retirees. Halloran (1985, p.39) stated that we have grown up hearing the question "what do you want to be when you grow up?" rather than questions such as "who do you want to be?" or "what do you want to know?" In other words, we have been asked since childhood to think about the occupation we would like to get, unconsciously putting a career at the center of our life and identity.

In fact, many researchers have asserted that an individual's principal identity tends to be developed through his or her career (Brown et al., 2001). Glasser (1972) posits that it is because work is strongly linked with our source of security and survival. Only limited individuals such as wealthy people would be able to obtain identity outside of work (Veblen, 1899). For these reasons, retirement is often considered as an identity crisis, since it deprives individuals of their work roles (Burgess, 1960; Miller, 1965). This phenomenon is particularly predominant among individuals who are strongly attached to their careers, and for them, retirement can lead to increased tension and a decreasing sense of self-esteem (Carmel, 1997; Phillipson, 1993). To cope with this identity crisis, Halloran (1985) cautioned retirees not to put too much weight one's career and stressed to diversify their interests such as developing their leisure repertoire.

The second major consequence of retirement brings changes in individuals' finances, particularly concerning the sources and amount of their earnings. In pre-retirement, individuals' main source of income is usually the wage from their job. However, during post-retirement, job wages are limited or even nil, and retirees must rely on other revenue sources such social security and private pensions. In general, Social Security is the primary source of income in retirement, and other sources such as private pensions or savings supplement that income, if they exist (Knoll, 2011). Nevertheless, most individuals experience a significant decrease in the amount of their income after retirement. Munnell and Soto (2005) revealed that the replacement

rate of Social Security is only 57 percent for the "low earner," 42 percent for the "medium earner" and 35 percent for the "high earner." Since one's financial situation tends to be determined by the retirement system rather than their effort, retirees often feel that they lack control of their financial status and this financial insecurity regards as a primary concern of retirees (Glass & Flynn, 2000). Moreover, due to the sustainability issues of Social Security and Medicare, more retirees are concerned about financial security during their retirement (Quinn, 2010; Yeung, 2013). Indeed, several researchers have reported the concern of individuals not having sufficient income after retirement to maintain their financial independence (Gist, Wu, & Verma, 2004; Yuh, Montalto, & Hanna, 1998). These changes are noteworthy, since they relate to attitudes toward retirement and psychological well-being in the long run (Feldman, 1994; Mutran et al., 1997).

The consequences of retirement might also include influences on social relationships. In addition to making money, the workplace not only provides opportunities to meet new people, but the context in which to meet regularly (Ritzer, 2015). In fact, some researchers found that social interaction in the workplace account for a considerable portion of their social network (Mor-Barak, Scharlach, Birba, & Sokolov, 1992). Indeed, retirees tend to miss their colleagues and social relationships in the workplace after retirement (Bossé, Aldwin, Levenson, Spiro, & Mroczek, 1993; Sullender, 2003). Hence, withdrawal from the workplace is assumed to eliminate one of the significant contexts for developing social relationships. This deprivation of social interaction would cause a change in the composition of the network. For example, retirees are more concentrate on relationships with people closest to them such as their spouse, family and intimate friends (Adams & Rau, 2011; Carstensen, Gross, & Fung, 1997; van Tilburg, 1992) and look for people who are free during the daytime.

Another consequence of retirement involves the individual's health status. It is popularly believed that retirement has a negative association with health (Crimmins, Saito & Reynolds, 1997; Reynolds, Crimmins, & Saito, 1998). In fact, many studies have shown that retirees who have been retired longer have a tendency to report more health problems than workers and retirees with less time in retirement, (e.g., Dorfman, Kohout, & Heckert, 1985; Rohwedder & Willis, 2010). This is especially the case for people who regard retirement as a stressful event, since this attitude could have psycho-social consequences such as depression and anxiety (Dave, Rashard & Spasojevic, 2008; Holmes & Rahe, 1967; Minkler, 1981; Nuttman-Shwarz, 2004). However, several researchers reject the adverse consequences of retirement on health status (Manila, Joukamaa, & Salokangas, 1989). Specifically, when we control for previous health condition, retirement has no significant effect on health or even has positive influences (Coe & Zamarro, 2011). Moreover, retirees were more likely to engage in healthy behaviors such as quit smoking and exercising (Insler, 2014) and report relatively lower loneliness and depression after retirement (Charles, 2002). Based on this, Behncke (2009) discouraged the belief in a one-dimensional effect of retirement on health, since individuals can have different outcomes. Instead, it is more reasonable to see health conditions affect the retirement decision more than retirement affects the condition of health (Bazzoli, 1985; Shultz, Morton & Weckerle, 1998).

Finally, retirement requires restructuring one's lifestyle due to the loss of work (Osborne, 2012). Compared to pre-retirement, the most two conspicuous changes retirees confront are extended free time and reduced financial status (Bird 2013; Wang, Wu, & Wu, 2014). The combination of these changes with retirees' internal (e.g. personality, health) and external resources (e.g., social network, facilities) yields various patterns of lifestyles for retirees. Some might decide to choose bridge employment after retiring from their primary career, while others

choose to engage in part-time employment after retirement (Adams & Rau, 2011; Wang, Adams, Beehr, & Shultz, 2009). Furthermore, some choose to engage in leisure activities including volunteer activities. Leisure researchers encourage retirees to engage in leisure activities, since it is closely linked to health and well-being (Dupuis, & Alzheimer, 2008; Mannell, 2007). Leisure involvement not only plays as a powerful preventive for all types of cancer (Ornstein & Erlich, 1989), but also a diffuser of meaning in later life (Schwartz & Campagna, 2008). Moreover, since leisure is the most controllable domain in a retiree's lifestyle, retirees should pay more attention to leisure (Iso-Ahola & Mannell, 2004).

As such, retirement affects individuals' post-retirement experience in many different ways and people also respond differently to this transition. Then, what makes some cope better with the transition, while others struggle? Sense of Coherence (SOC) could be one way to understand the factors that contributing to retirement adjustment.

Sense of Coherence

Background of Sense of Coherence

When it comes to health research, many fields depend on a pathogenic approach to find and deal with the factors that compromise health (Antonovsky, 1993). Particularly in bio-medical and some social science research, this approach relies on analyzing problems and finding a way to manage or eliminate them (Geyer, 1997). However, Antonovsky (1987) stated that at least a third of the population have some sort of illness so that it is almost impossible to live an illness/diseases free life. In response, the salutogenic paradigm has emerged and taken an ease/dis-ease continuum approach rather than a health-disease approach. In other words, it concentrates on the positive side of health, how and why an individual is healthy instead of

exploring what aggravates health (e.g., Antonovsky, 1987; Sagy, Antonovsky, & Adler, 1990). The idea of salutogenic began with the study of Holocaust survivors. Although Jewish survivors all went through similar miserable experiences, some of the survivors coped surprisingly better with the situation than others. This phenomenon led Antonovsky (1987) to presume that individuals who cope well with stressful situations have something that others lack. Antonovsky sought for this difference among internal factors rather than external factors and attributed it to an individual's a global perceptual disposition, his or her sense of coherence (Antonovsky, 1993).

Definitions of Sense of Coherence

Antonovsky (1987) defined SOC as:

> "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that 1) the stimuli, deriving from one's internal and external environment in the course of living are structured, predictable and explicable; 2) the resources are available for one to meet the demands posed by these stimuli; and 3) these demands are challenges, worthy of investment and engagement (p.19).

SOC emphasizes three core components: comprehensibility of one's world (cognitive aspect), manageability of one's outcomes (behavioral aspect), and meaningfulness of one's life (motivational aspect). These three components were not identified arbitrarily but through in-depth interviews with individuals who had experienced major trauma (Antonovsky, 1987). Comprehensibility refers to the extent to which one makes sense of internal and external stimuli (Strümpfer, 1995). It derives from the question, "why did this happen?" (Bayne, 2000). It connects with the cognitive aspect, and ultimately it examines how individuals perceive and understand the situations they experience. Hence, individuals with high comprehensibility are

more likely to perceive that current and upcoming events are predictable and understandable to them, enabling them to cope better. Manageability, the second component of SOC, refers to an individual's perception that he or she can manage stressful stimuli with the resources they possess (Antonovsky, 1987). In short, "How can I manage?" is the question examining the manageability of the individual (Bayne, 2000). In this sense, individuals with high manageability assume they are capable of dealing with situations they confront. It is often linked with self-efficacy, since both constructs have a power to influence performance and are not limited to certain cultural boundary (McComb, 2010). The third component of SOC, meaningfulness, refers to the sense that demands are challenges worthy of investment and engagement (Antonovsky, 1987). It examines the question "What does this mean?" (Bayne, 2000, p.24). In other words, this component measures whether it is worth investing efforts and resources to cope with the situation. Thus, it links with a motivational aspect, concerning how willing individuals are to deal with the situations that confront them. In this sense, individuals with high meaningfulness show more commitment to cope with situations (Antonovsky, 1987).

Features of SOC. Considering the components of SOC, it has a two unique characteristics that differentiate it from other concepts. First, the cognitive-psychological aspect is predominant in SOC. In fact, three core components of SOC are judged by the individual's perception and Lazarus and Folkman (1984) emphasized that coping is not just an ability to manage a situation; it also includes an ability to manage the emotions derived from a situation. Previous literature also has shown that SOC is more likely to be associated with psychological constructs as well. Eriksson and Lindstrom (2005), for example, conducted a systematic review of SOC and health and found that SOC has a stronger correlation with mental health than physical health. In addition, Volanen, Lahelma, Siventoinen and Suominen (2004) noted that

psychosocial variables (e.g., social support, employment status, quality of family life, childhood living conditions) are more likely to be the stronger contributors to SOC than socioeconomic variables (e.g., age, education, gender). Thus, the authors urged researchers to explore the relationships between SOC and psychosocial aspects of general resistance resources (GRRs), which are resources available to help manage difficulties. Another trait of SOC is stability. Antonovsky (1987) contends that SOC begins to develop in early childhood and is fully developed by age 30. Even though the SOC varies, it only fluctuates within 10 percent of an individual's normal SOC level (Smith, Breslin & Beaton, 2003). Due to this stability, SOC is frequently identified as a personal trait such as personality (Geyer, 1997).

However, other researchers disagree, contending that SOC is not a fixed trait but a flexible orientation (e.g., Kähönen, Näätänen, Tolvanen, & Salmela-Aro, 2012; Smith et al., 2003). Even, Antonovsky (1987) did not foreclose the possibility of the level of SOC change. In particular, some researchers posited that individuals with low SOC were more likely to fluctuate, while individuals with relatively high SOC maintain the stability of SOC when confronting stressful events (Hakanen, Feldt & Leskinen, 2007). They observed that when a person confronts a major life transition, SOC tends to change depending on how the individual perceives the surrounding environment (Antonovsky & Sagy, 1990). For example, when individuals retire, they tend to encounter new stimuli, which they might not have previously experienced, and the resources they have might no longer be adequate to cope with the new stimuli, which could cause changes in SOC. Besides, some researchers asserted that SOC could transform as we age (Frenz, Carey & Jorgensen, 1993; Larsson & Kallenberg, 1996). For example, Nilsson et al. (2010) examined the development of SOC among 43,589 Swedish participants from age 18 to 85. In this study, participants SOC scores showed an upward trend as they aged and this applied

to both sexes. This trend was also found by Larsson and Kallenberg (1996). This study was replicated with a sample of almost 3,000 Swedish people. They found that the 50 to 74 age group (65.24) had a significantly higher SOC score than the 15-29 (62.74) age group and the group aged 30-49 (64.98). Similarly, Surtees et al. (2001) found that SOC scores were increased as the participants (N= 20,579) aged. However, it peaked between ages 60 and 69 and started to decline again.

The Role of Sense of Coherence

One of the positive roles of SOC is a guide for individuals to evaluate stressful situations and to perceive them as less challenging (Eriksson & Lindstrom, 2006; Gana, 2001; Jorgensen, Frankowski & Carey, 1999; Richardson & Ratner, 2005). Suresky, Zauszniewski, and Bekhet (2008), for example, assessed 60 women (ages 23 to 65 years) who were providing care to a family member with serious mental illness regarding their sense of coherence (SOC) and quality of life (QoL). The authors found that a respondent with the higher level of SOC was more likely to scored high QoL. Moreover, SOC played a mediator role between perceived stress and QoL. Furthermore, Forbes (2001) found that older adults with high SOC not only showed a better ability to re-assess stressful situations, but also set up realistic coping strategies.

Another role of SOC is managing negative emotional constructs such as anxiety (Myrin & Lagerström, 2008), depression (Ying, Lee, & Tsai, 2007) and post-traumatic stress symptoms (Pallant & Lae, 2002). Gana (2001), for example, examined the mediating role of SOC between adverse emotions (i.e., anxiety, worry and stress) and psychological well-being. A total of 193 French participants were engaged in the research, and their mean age was 54.24. The results of the study indicated that adverse emotions did not directly affect psychological well-being, but were affected through the sense of coherence, a mediator. This assumed that individuals with

strong SOC were more likely to prevent adverse emotions from influencing their psychological well-being, while people with weak SOC were more like to be vulnerable.

The other role of SOC is to facilitate engagement with healthy behaviors such as promoting social support, seeking health care information, physical activity, and dietary habits (Forbes, 2001; Kuuppelomäki & Utriainen, 2003; Larsson & Setterlind, 1990). Wainwright et al. (2007), for example, recruited 7,863 men and 10,424 women residing in the U.K. to examine the role of SOC on healthy lifestyle choices such as physical activity, consumption of fruit and vegetables and nonsmoking. The findings revealed that individuals with strong SOC were 28% more likely to choose healthy lifestyles. Moreover, Myers, Drory, and Gerber (2011) explored the relationship between SOC and leisure-time physical activities among 643 older adults with myocardial infarction through a longitudinal study. They followed up with the participants for 13 years and found that SOC was positively associated with engagement in leisure-time physical activities. Even after controlling the severity of diseases, depression, sociodemographic and clinical factors (e.g., obesity, cigarette use, diabetes mellitus, hypertension, self-rated health), the participants with stronger SOC showed almost twice higher engagement in leisure-time physical activity than the participants with lower SOC.

Due to the roles of SOC, it is often associated with health and well-being (e.g., Nilsson et al., 2010; Suominen et al., 2001). Eriksson and Lindstrom (2007) conducted a systematic review on the relationship between SOC and quality of life. A total of 32 quantitative and qualitative peer reviewed papers and doctoral theses published from 1992 to 2003 were included in their review. They concluded that SOC plays a positive role in quality of life for individuals with health problems (e.g., cancer, HIV infection, heart diseases) regardless of age. Moreover, the findings consistently showed that individuals with high SOC were more likely to score higher on

quality of life. In addition, Wiesmann and Hannich (2012) recruited 387 older adults and examined the role of SOC in both health and general life satisfaction. The results showed that SOC was a significant predictor of both general life satisfaction and satisfaction with health. Moreover, it played a mediating role between the independent variables (i.e., a number of chronic conditions, everyday competence, social support and self-esteem) and the dependent variables (i.e., general life satisfaction and satisfaction with health).

Sense of Coherence and Retirement

Antonovsky (1987) asserted that stressors could be largely classified into three categories: a) chronic stressors (e.g., lack of education, poverty); b) acute daily hassles; and c) major life events. Among them, retirement from work could be classified into a major life transition, particularly during late adulthood (e.g., Barnett, Guell & Ogilvie, 2012, Taylor-Carter, Cook & Weinberg, 1997). While individuals can have different levels of commitment to their work, work has been a key to their social legitimacy in our society (Antonovsky & Sagy, 1990). Hence, withdrawing from a career is a significant change for many aspects of individuals' life, although there might be differences in degree. Retirement could influence many domains of life: self-identity, finances, social relationships, health and lifestyle (e.g., Atchley, 1982b; Osborne, 2012; Schellenberg, Turcotte & Ram, 2005). Due to these transformations, some researchers have ranked retirement 10th out of 43 life events that are stressful resources for illness (Holmes & Rahe, 1967) and have viewed it as a stressful life event (Antonovsky, 1987; Minkler, 1981). Moreover, a relatively current national survey from Metlife (2005) revealed that financial insecurity among the baby boomers aggravates the anxiety about retirement, which reinforces the significance of retirement as a major life event.

Many of the anxieties and concerns of retirement could be derived from the uncertainty of retirement. People might say that it is not just during retirement, which is unpredictable and unclear. However, uncertainty could be amplified during retirement, since nothing is structured in retirement. For example, before retirement, an individual normally has a time schedule he or she needs to follow due to activities such as one's work schedule. Hence, merely following a schedule could help the individual to reduce uncertainty in their life. However, after retirement, due to an absence of a daily routine, everyday life can become irregular, which can be unsettling. In fact, Nuttman-Shwartz (2004) conducted a longitudinal study to understand the retirement process among 56 Israeli men. About forty-four percent of the participants were concerned about the uncertainty of retirement before retirement. They reported that they were not sure what was going to happen in the future and how they will respond to retirement. These concerns were not limited to financial status, but extended to family relationships and managing free time.

During such an unpredictable transition, SOC could be an important psychological resource for coping (Antonovosky, Sagy, Adler & Visel, 1990; Sagy, Antonovsky & Adler, 1990). This is because comprehensibility, one of the components of SOC, assesses how individuals clearly and predictably make sense of their situations. In other words, individuals who perceive high comprehensibility expect to cope well with their situation, since they relatively perceive a clear vision of retirement. Furthermore, other components of SOC (i.e., manageability and meaningfulness) will encourage individuals to believe they have sufficient resources and value of coping transition to retirement. Specifically, individuals will be more willing to seek ways to have a smooth retirement transition such as planning, engaging with retirement-related programs and finding meaningful leisure activities to fill their retirement. Then, based on the resources, individuals will better deal with the uncertainties of retirement.

Despite the potential connection between SOC and retirement, few studies have explored the role of SOC in the retirement transition. Antonovsky, Sagy, Adler and Visel (1990), for example, investigated the relationship between SOC and attitudes toward retirement, an important indicator of positive retirement adaptation (Fly, Reinhart & Hamby, 1981; Mutran et al., 1997). In this study, attitudes toward retirement were divided into four domains: gains from leaving work; gains from retirement; losses from leaving work; and losses from retirement. The findings indicated that SOC was negatively associated with losses from retirement, but positively associated with the gains from retirement. In sum, individuals with high SOC tended to downplay the losses involved in their transition and focus on the gains, which indicates that SOC would enhance attitudes toward retirement. Also, Sagy and Antonovsky (1992) examined the role of the family's sense of coherence on the retirement transition, since they assumed that retirement is not solely an individual experience. As they expected, family SOC, particularly the partner's SOC, was correlated with a retiree's SOC. Furthermore, family SOC was a significant predictor of a retiree's health and life satisfaction.

Second, SOC affects individuals' retirement decision. Volanen et al. (2010), for example, noted that SOC plays a role in preventing early retirement among Finnish men and women. They believed health was the pivotal reason causing early retirement. Thus, they hypothesized that individuals with high SOC would be able to cope with early retirement better. In fact, individuals with high SOC were less likely to take an early retirement option. They speculated that individuals with high SOC not only perceived their health positively, but also believed to have sufficient resources to handle difficulties they encountered during the retirement transition. In contrast, Volanen (2011) stated that individuals with low SOC might not be willing to stay in the workplace, since they probably are not satisfied with the situation.

However, the existing literature has mainly focused on European populations such as Finland, Israel, and Sweden, while other populations including the U.S. population has been overlooked (e.g., Antonovsky et al., 1990; Volanen, 2011). Therefore, it would be meaningful to explore the relationship between SOC and the factors related to successful retirement transition among a segment of the U.S. population as well.

General Resistance Resources (GRRs) and Retirement

Along with SOC, Antonovsky (1987) highlighted the role of General Resistance Resources (GRRs), since they serve as determinants of SOC and effectively coping with various stressors (Sullivan, 1995). On the other hand, the lack of GRRs could cause stress (Antonovsky, 1987). Antonovsky (1985) defines a GRR as any characteristic of the individual, group, subculture or society that support managing a wide variety of stressors (p.199). As such, GRRs are described broadly, which indicates that GRRs could exist in diverse forms (e.g., Antonovsky, 1987; Volanene, 2011). Antonovsky (1987) classified GRRs into physical-biochemical, artifactual-material, cognitive-emotional, valuative-attitudinal, interpersonal-relational and macro-sociocultural. Physical-biochemical refers to resources such as a genetic strength and the human nervous system. While they are vital, physical-biochemical GRRs are the innate variables. Artifactual-material refers to tangible resources such as food, money and accommodation, while cognitive-emotional GRRs are intangible resources such as knowledge, self-efficacy and self-identity. Valuative-attitudinal relates to coping styles; the way an individual copes with stressors. Antonovsky (1985) assumed individuals' coping style emerges as an outcome of the combination of the following abilities: a) rationality, the objective ability to assess a threat; b) flexibility, a capacity to fulfill a contingency plan; and c) farsightedness, the ability to have an insight into the overall situation. Plus, GRR includes interpersonal and

relational, referring to resources formed through social interaction such as social support. Lastly, macro sociocultural resources are those formed through cultural or social norms. These diverse GRRs are believed to help promote the development of SOC and, by extension, help to cope with stress (Antonovsky, 1993).

The role of GRRs. Eventually, SOC is eventually controlled by how individuals utilize their GRRs (e.g., Gana, 2001; Suresky, Zauszniewski & Bekhet, 2008; Weismann & Hannich, 2012). Indeed, Volanen, Lahelma, Silventoinen and Suominen (2004) explored the relationship between GRRs and sense of coherence. In this study, GRRs were adopted from sociodemographic (i.e., age, education, childhood conditions) and work, family and social life domains. The findings indicated that all the domains were associated with SOC, while some factors showed small differences in effectiveness regarding gender. In particular, psycho-emotional resistance resources were more strongly associated with SOC than socio-economic status. For example, Read, Aunola, Feldt, Leinonen and Ruoppila (2005) attested Antonovsky's model, since the model explains the relationships among GRRs, SOC and health status. To evaluate the validity of the model, a total of 320 Finnish older adults participated and family income, cognitive functioning, years of formal education, marital status and physical exercise were used as GRRs. As assumed, the results showed that GRRs were associated with SOC. However, not all the GRRs were significantly associated with SOC among the whole sample. Only cognitive functioning and physical activity were positively associated with SOC among the whole sample, while marital status was only significant for men. SOC, on the other hand, showed significant relationships with all aspects of health (i.e., physical, social and mental health).

Leisure as a GRR. Read et al., (2005) noted that not all types of GRRs were associated with SOC in their study. They pointed out that age and life situation of the individual could influence the relationship between GRRs and SOC. In other words, depending on the time and the situations of individuals' life, some GRRs could be more effective than others. Particularly in post-retirement, leisure is a critical aspect, since retirement is generally regarded as a time for leisure (e.g., Parker, 1987; Vienne, 2004). Despite the importance of leisure, it is barely mentioned as a GRR associated with retirement. Among the leisure related GRRs, leisure attitudes and leisure self-efficacy are the potential determinants of SOC. These are crucial components, since they are closely linked to leisure behavior and leisure satisfaction, which could contribute to well-being in later life (Brown & Frankel, 1993; Hawkins, Foose & Binkley, 2004; Bandura, 1986; Locke & Latham, 1990). Specifically, Mobily (1984) claimed that an individual's leisure attitude is closely related to obtaining benefits from leisure engagement, since a negative attitude toward leisure would prevent participants from enjoying the leisure. Furthermore, leisure attitudes were identified as a principle determinant of leisure engagement and leisure satisfaction (Brown & Frankel, 1993; Searle & Iso-Ahola, 1988). In addition to leisure attitude, leisure self-efficacy is another salient factor in increased motivation and facilitates purposeful behavior (Hoff & Ellis, 1992). Due to this characteristic, self-efficacy helps individuals to cope with challenges encountered in the performance of a specific task (Bandura, 1986; Locke & Latham, 1990). Therefore, these variables could be substantial GRRs during retirement.

Leisure

Definitions of Leisure

The complexity of our concept of leisure is reflected in the many different perspectives researchers have taken in defining it. Mannell and Kleiber (1997) stated that defining and measuring the concept is "one of the longest standing problems" for researchers (p.7). In general, leisure has been defined in terms of time, activity and state of mind (Godbey, 2003). With reference to time, leisure is defined as "free or unobligated time that does not involve work or performing other life-sustaining functions" (Godbey, 2003, p.3). Activities that are "non-productive in an economic sense and chosen by participants" (Chick, 2010, p.3) are identified as leisure, but although these definitions are relatively objective, they have been criticized for their inconsistencies (Parr & Lashua, 2004). For example, if an individual had to go out for dinner with a person whom she or he hates, neither the time spent nor the activity would be considered leisure, even though both of these definitions would be satisfied. Therefore, many researchers emphasize the importance of the individual's perception of leisure (Kraus, 1990).

In general, leisure researchers acknowledge that freedom of choice, intrinsic motivation, and enjoyment are three conditions for the leisure experience (Chick, 2010, p.4). This notion has been supported by theories such as Neulinger's leisure paradigm. Neulinger's leisure paradigm assumes that leisure is a state of mind regardless of one's circumstances (Neulinger, 1974). He specifically highlighted the importance of perceived freedom and intrinsic motivation as components of leisure activities (Neulinger, 1981). Perceived freedom is defined as "a state in which the person feels that what he is doing, he is doing by choice and because he wants to do it" (Neulinger, 1974, p.15). Motivation—wanting to do something—is another condition of the leisure experience, and it can be divided into intrinsic and extrinsic types. Neulinger (1974) explained that intrinsic motivation is derived internally from personal desire, while extrinsic motivation is driven by such things as money and social pressure. Considering these two

constructs, Neulinger categorized activities into six types: 1) pure leisure; 2) leisure-work; 3) leisure-job; 4) pure work; 5) work-job and 6) pure job. He used perceived freedom as a criterion to distinguish leisure (categories 1-3) and non-leisure (categories 4-6), while motivation was used to distinguish an orientation between leisure and work. Thus, pure leisure refers to intrinsically motivated activities that the individual perceives as his or her choice, whereas activities that are externally mandated are considered pure work.

The importance of perceived freedom has been emphasized not only by researchers but also by the participants in studies (Carpenter & Patterson, 2004). Both Shaw (1985) and Iso-Ahola (1979) tested Neulinger's leisure model and found that perceived freedom was the crucial factor by which participants distinguished between leisure and non-leisure. Furthermore, several researchers have asserted that perceived freedom in leisure would influence a person's leisure experiences (Poulsen, Ziviani & Cuskelly, 2007; Witt & Ellis, 1985). Guinn, Semper, and Jorgensen (1996) revealed that participants who perceived higher freedom in their leisure experience were more likely to report higher levels of competency, locus of control, internal motivation and playfulness.

However, Neulinger's leisure paradigm drew criticism due to the subjectivity of its categorization. In other words, perceived freedom and intrinsic motivation are not always mutually exclusive, and it is hard to identify the degree to which they influence feelings of satisfaction. Hence, it is difficult to classify activities into clear categories. Furthermore, since leisure relies on participants' perceptions, Sylvester (1991) asserted that it might not be worth discussing definitions of leisure, since any type of activity could be leisure if the individual thinks it is.

Leisure and Later Life

With many countries entering an era of an aging society (7% to 14% of the total population is age 65 and over), successful aging is not only an individual level interest but also a national level interest (Bowling & Dieppe, 2005). Rowe and Kahn (1997), the representative researchers in successful aging, have proposed three dimensions of successful aging: avoiding disease and disabilities, maintaining high cognitive and physical function, and engagement with life. However, this theory has been criticized due to the wide gap between definition and reality (Depp & Jeste, 2006). Strawbridge, Wallhagen, and Cohen (2002) demonstrated this by comparing self-rated successful aging to definition-based successful aging. Their results showed that 50.3% of participants reported that they were aging successfully, while only 18.8% were satisfied with the components of successful aging. Moreover, the Centers for Disease Control reported that 133 million Americans, or almost half of older adults in the U.S. have at least one chronic illness (CDC, 2014). As such, it is tough to maintain the absence of disease and high cognitive functioning as we age due to age-related losses. Therefore, many leisure researchers have emphasized the third component, active engagement with life, to understand successful aging, and they have identified leisure as one of the ways to be engaged with life and foster successful aging (Burnett-Wolle & Godbey, 2007; Nimrod, 2007). Buettner (2008) also supported the notion by examining older adults in five sites well known for longevity culture. The author identified five factors that contribute to longevity, all of which relate to leisure in some way: regularly engaging in an activity, living with purpose, living at a slow pace, maintaining a sense of belonging to the community, and having a good relationship with the family.

Leisure Benefits. Considerable numbers of studies provide ample evidence of leisure activities' contribution to health and well-being among older adults. First, scholars have

emphasized the benefits of leisure participation for the physical and mental health of older adults (e.g., DiPietro, 2001; Iwasiaki, Coyle, & Shank, 2010; Johansson, Konlaan, & Bygren, 2001; Vuillemin et al., 2005). Some of these studies have focused on physical health by examining leisure-time physical activities (LTPA). Balboa-castillo, León-muñoz, Graciani, Rodríguez-artalejo, & Guallar-Castillón (2011), for example, explored the relationship between LTPA and health-related quality of life. The results indicated that an individual with the higher level of LTPA shows significantly better scores on the SF-36 scales, which includes such as physical functioning, bodily pain, vitality and mental health. In contrast, the authors noted that leisure-time sedentary behavior has an inverse relationship with the health-related quality of life. Furthermore, through The Lifestyle Interventions and Independence for Elders (LIFE) intervention study, Fielding et al., (2011) found that encouraging physical activities to older adults could bring multiple benefits from preventing serious fall injuries and disability in activities of daily living to improving cognitive functioning and mobility. In addition, Iso-Ahola (1997) found that both physical and non-physical leisure activities contribute to mental health. The author stated that participating in both types of leisure activities helps to manage depression and anxiety, produces positive moods, enhances self-esteem and self-concept and facilitates social interaction. These good feelings lead to increased psychological well-being and life satisfaction in the long run.

In addition to physical and mental health, several researchers pointed out the connection between leisure and personal benefits and social benefits (e.g., Dattilo & Murphy, 1991; Iwasaki & Mannell, 2000; Shamir, 1992; Stebbins, 2007). Mannell (2007), for example, identified five different themes of leisure benefits: a) keep busy; b) pleasure, relaxation, and fun; c) personal growth; d) identity formation; and e) stress-coping (p. 116-120). He stated that leisure keeps an

individual from being bored by encouraging involvement. Moreover, leisure engagement offers individuals the opportunity to experience positive emotions (e.g., enjoyment, relaxation, stress reduction), personal development, and identity formation. In addition, leisure plays a major role in social relationships (e.g., Chang, Wray, & Lin, 2014; Lloyd & Auld, 2002). For example, Piercy and Cheek (2004) explored how quilting among middle- and older-aged women from three minority groups: Amish, Appalachian, and Latter Day Saints. The participants reported that they could develop friendships with other quilters. Moreover, they acknowledged that quilting is a great way to make friends and build long lasting friendships. Coleman and Iso-Ahola (1993) assumed that it is because close relationships generally develop when individuals perceive freedom and are intrinsically motivated, which align with the leisure context. In particular, since older adults are more likely to lose social networks by going through life transitions (e.g., losing partners, retiring from work, empty nests), leisure may be an effective strategy to establish social networks (Janke, Davey & Kleiber, 2006).

Consequently, a considerable number of researchers stated that leisure contributes to psychological well-being including life satisfaction, happiness and successful aging, since it closely relates to quality of later life (e.g., Beck & Page, 1988; Hawkins, Foose & Binkely, 2004; Heo, Stebbins, Kim & Lee; 2013; Lawton, 1994; Payne, Mowen, & Montoro-Rodriguez, 2006; Nimrod, Janke, & Kleiber, 2008). Netz, Wu, Becker, and Tenenbaum (2005), for example, conducted a meta-analysis to display the ‘big picture' of the relationship between older adults' participation in physical activity and their well- being. They selected thirty-six research articles and used weighted multiple regression analysis to explore how physical activity would impact older adults' well-being. The results showed that the treatment group (who participated in exercise) scored three times higher on the pretest-posttest change than the control group who

participated in little or no exercise), strongly supporting the claim that physical activity contributes to psychological well-being. Mannell and his colleague also found that leisure participation is not only associated with life satisfaction, but is also a stronger predictor of life satisfaction than physical health or income (Mannell, 1999; Mannell & Dupuis, 2006).

Leisure and Retirement. One of the notable changes retirees experience after retirement is extended discretionary time (Griffin & McKenna, 1998). While free time has a positive connotation, simply having more free time does not guarantee high life satisfaction (McPherson, 1991); rather, satisfaction depends on how individuals fill this time (Wang, Wu, & Wu, 2014; Wang, Wu, Wu, & Huan, 2012). In this sense, leisure should be considered as a crucial component in retirement, since leisure normally occurs in free time (e.g., Russell, 1990; Watkins & Bond, 2007). Further, retirees should be more encouraged to pay attention to their leisure, since it relies on individuals' choices, which offer more control to shape their health and well-being in retirement.

The argument is as follows: First, Hayslip, Beyerlein, and Nicholos (1997) asserted that withdrawing from one's career could be interpreted as a loss of identity, one of the main fears of retirees. However, researchers claim that leisure could replace the work identity by suggesting an alternative identity (e.g., Atchlely, 1976; Dionigi, 2002). Specifically, serious leisure, a form of leisure engagement, is believed to be a possible source for developing an identity outside of a career (Stebbins, 2001). Stebbins (2001) suggested six qualities of serious leisure, and identity formation is one of these qualities. Serious leisure participants are inclined to view themselves as the specific leisure activity they do, and they put that activity at the center of their lives (Brown, McGuire, & Voelkl, 2008). Second, Coleman and Iso-Ahola (1993) proposed that leisure is typically highly social in nature, so that leisure engagement can facilitate the development of

companionship and friendship, and consequently strengthen one's belief in the availability of social support. Hutchinson and Nimrod (2012), for example, interviewed older adults with chronic health conditions. They noted that leisure was even used as a context of reuniting with their former workmates and to meet people with similar challenges.

Additionally, leisure contributes to older adults' quality of life (Brown & Frankel, 1993). Nimrod, Janke, and Kleiber (2008), for example, explored 430 American retirees' leisure behavior after retirement and their life satisfaction. They revealed that the participants who expanded their leisure repertoire or increased a frequency of leisure engagement were more likely to report higher life satisfaction. In other words, actively engaging in diverse leisure activities shows a significant association with individuals' life satisfaction. Morevoer, Heo, Stebbins, Kim, and Lee (2013) stated that people with high leisure involvement would have higher perceptions of physical and mental health than the general population.

These benefits of leisure were not limited to a short-term impact, but have a long-term impact (Silverstein & Parker, 2002). Through a 6-year longitudinal study, Menec (2003) revealed that the overall activity level of participants in 1990 was associated with their happiness, function and mortality in 1996. One reason is subjects' previous level of leisure participation was likely to continue and predicted their future leisure participation (Agahi, Ahacic & Parker, 2006). Also, the benefits of leisure were identified regardless of ethnicity (e.g., Fernandez-Mayoralas et al., 2015; Wang, Wu, & Wu, 2014). Cheung, Ting, Chan, Ho and Chan (2009), for example, explored leisure participation and quality of life among Hong Kong older adults. A total of 269 participants were involved in the study and the authors found that diverse leisure repertoire, particularly cognitive and social activities, have a positive association with health-related quality of life.

Leisure as General Resistance Resources (GRRs)

Antonovsky and his colleagues claim that Sense of Coherence (SOC) could be a beneficial psychological resource for coping with the transition to retirement (Antonovsky, Sagy, Adler & Visel, 1990; Sagy, Antonovsky & Adler, 1990). Since GRRs (general resistance resources) are determinants of SOC (Antonovsky, 1993), it is worth examining the possible GRRs that could support the retirement transition. Among the GRRs, leisure has been overlooked in the literature, even though it is a crucial domain, particularly in the context of retirement (e.g., Janssen, 2004; Mannell, 1999; Pepper, 1976).

Leisure has positive connotations such as freedom, intrinsic reward, happiness, pleasure, relaxation and enjoyment (Russell, 1990). Since a salutogenic approach concentrates on the positive assets, which could contribute to health and well-being, leisure would be a substantial GRR. Since state of mind is crucial for defining leisure (Kraus, 1990), understanding orientations toward leisure is an important step to gaining insight into the role of leisure in the retirement transition. However, little research has been explored the socio-psychological constructs of leisure such as attitude, self-efficacy, and satisfaction (Chui, 2009). Therefore, this study examines leisure attitude and leisure self-efficacy, both of which could be substantial leisure-related GRRs for comprehending the role of leisure during the retirement process.

Leisure Attitude. While the definition of attitude was actively explored in social psychology in the early 1900s, attitudes toward leisure didn't receive attention until the 1970s (Tesser & Schwarz, 2001; Harrison, 1976). Hogg and Vaughan (2005) defined attitude as "a relatively enduring organization of beliefs, feelings and behavioral tendencies towards socially significant objects, groups, events or symbols" (p. 150). Due to the complexity of the concept of attitude, Triandis (1967) suggested measuring leisure attitude in multiple dimensions. While

there are several scales of leisure attitude, many acknowledge the same three components (Ragheb & Beard, 1982). The affective component refers to "the individuals' feelings toward his/her leisure, the degree of liking or disliking of leisure activities and experiences" (Ragheb & Beard, 1992, p.158). In other words, the affective component encompasses how individuals evaluate their leisure experiences and activities and how they feel about them. The cognitive component, on the other hand, describes "the individual's general knowledge and beliefs about leisure, its characteristics, virtues, and how it relates to the quality of one's life" (Ragheb & Beard, 1992, p.158). It concentrates on how individuals perceive and believe in the pros and cons of leisure engagement. Lastly, the behavioral component indicates "the individual's past, present, and intended actions with regard to leisure activities and experiences (Ragheb & Beard, 1992, p.158). While the affective and the cognitive components focus on an internal aspect, the behavioral component measures a person's external expression, both verbal and behavioral.

Understanding leisure attitude is important, since it helps researchers to understand the socio-cognitive process of leisure engagement (Teixeira & Freire, 2013). Mobily (1984) also stressed the value of understanding leisure attitudes, since people who have more positive attitudes toward leisure tend to be more open to experiencing the benefits of leisure. He asserted that this is the reason why a majority of leisure counseling emphasizes changing attitudes toward leisure as a main purpose of the program. Moreover, researchers stated that leisure attitudes correlate with leisure motivation as well (e.g., Chiu, 2009; Wu, 2008). In particular, Hsieh (1998) noted that the affective component plays more central role in motivation than the cognitive and behavioral components. Still, some research showed that general leisure attitudes have a positive relationship with leisure motivation (Tsai, Huang & Wu, 2014). Ragheb and Tate (1993), for example, examined the relationship among leisure attitudes, leisure motivation and

leisure satisfaction among 372 university students. The authors revealed that both cognitive and affective components of leisure attitude were significantly associated with leisure motivation.

Along with socio-cognitive process, leisure attitudes directly relates to leisure engagement as well (e.g., Dzewaltowski, 1989; Iso-Ahola, 1980). According to the theory of planned behavior (Ajzen & Fishbein, 1980), a positive attitude leads to the intention to make a behavioral change. Similarly, Iso-Ahola and Mannell (2004) posited that knowledge and a positive attitude and values toward leisure could increase one's intrinsic propensity for engaging in leisure activities. In support of this notion, Searle and Iso-Ahola (1988) found that older adults with a better leisure attitude were more likely to engage in leisure activities. However, some researchers have pointed out that there might be differences in the effects of the individual components of leisure attitude (Hsieh, 1998). For example, Ragheb and Tate (1993) found that the affective component was more effective than the cognitive component for promoting leisure participation, motivation, and satisfaction.

Furthermore, leisure attitudes are associated with leisure satisfaction (e.g., Ragheb, 1980; Siegenthaler & Dell, 2000), a key indicator of life satisfaction (e.g., Brown & Frankel, 1993; Hawkins, Foose & Binkley, 2004). Specifically, Hsieh (1998) examined the relationships among the leisure attitudes, motivation, participation and satisfaction of Taiwanese college students. The results indicated that the affective component of leisure attitude was positively related to leisure satisfaction, while the cognitive component of leisure was negatively associated. The author suggested two possible reasons why the cognitive component was not related to leisure satisfaction. One was that since the leisure satisfaction scale was focused on affective perceptions and feelings of leisure, it perhaps is not linked with the cognitive aspect of leisure attitude. The other was a high score gap between leisure attitudes and leisure participation. In

other words, since the participants were not engaged in leisure activities as much as they wanted even though they knew the benefits of leisure, they were dissatisfied with their leisure engagement.

Leisure Self-Efficacy. Bandura (1977) proposed an alternative approach, the Social Cognitive Theory (SCT), which describes the behavior as the result of a combination of personal, behavioral and environmental factors rather than stemming from a psychodynamic base. Within the SCT framework, researchers have focused on the role of self-efficacy in changing behavior, which led to the development of self-efficacy theory (Bandura, 1986). Self-efficacy is defined as "people's judgment of their capabilities to attain designated types of performances" (Bandura, 1986, p.391). Bandura (1994) stated that people with strong self-efficacy tend to believe they can accomplish even difficult tasks. Often, self-confidence is compared with self-efficacy. While self-confidence is the belief in one's capabilities for overall performance, self-efficacy is limited to a particular activity. In this sense, self-efficacy could vary depending on the activity. For example, an individual might have high self-efficacy for swimming, but low self-efficacy for playing baseball. Specifically, some researchers asserted that self-efficacy could be distinguished into two aspects based on the phase of time (e.g., Bagozzi & Edwards, 1998; Marlatt, Baer, & Quigley, 1995; Schwarzer & Fuchs, 1996). Schwarzer and Renner (2000), for example, asserted that some might be more confident that setting goals and initiating the activity, while others were more confident about maintaining in any circumstances. Based on the notion, the authors labeled action self-efficacy as a belief in the capability of initiating the activity and coping self-efficacy as a belief in the capacity to main the performance in challenging situations.

Such self-efficacy is influenced by four factors: a) mastery experience; b) vicarious experience; c) verbal persuasion; and d) somatic and emotional states. Mastery experience refers

to what the individual has gone through related to the task. Specifically, successful past experiences of the task develop self-efficacy for that task. Bandura (1994) asserted that this is the most effective way to strengthen self-efficacy, since individuals gain confidence by performing behaviors similar to the task. Vicarious experience, on the other hand, comes from observing others as they engage in the task or situations similar to the task. Vicarious experience provides individuals with confidence to conduct the task by making them believe they can do it because others are doing it. However, observation could also reduce someone's confidence, if they witness others fail. Self-efficacy is also influenced by verbal persuasion, the experience of receiving verbal support from others, which may have a connection with social support. Orsega-Smith et al. (2007), for example, explored the role of social support and self-efficacy among older adults who engaged in leisure-time physical activities. They found that participants who perceived strong verbal encouragement were more likely to engage in leisure-time physical activities. The last factor in self-efficacy is physiological arousal, the individual's physical and emotional perceptions that emerge when contemplating to conduct a task. These perceptions may be negative emotions (e.g., fatigue, stress, anxiety, worry), but they may also be positive emotions (e.g., joy, excitement, vigor).

In this sense, leisure self-efficacy is individuals' belief that they are capable of engaging in leisure activities. To date, very few researchers have examined leisure self-efficacy, though it has been linked to other domains. Particularly, physical activity self-efficacy has been frequently examined and explored for its relationship with physical activity participation (e.g., Dishman, 2001; Hagger, Chatzisarantis, & Biddle, 2002; Mullen, McAuley, Satariano, Kealey & Prohaska, 2012). Brawley and Martin (1995) stated that self-efficacy accounts for between 3% and 25% of physical activity and exercise behavior. Dzewaltowski, Noble and Shaw (1990), for example,

noted that the positive relationship between self-efficacy and physical activity participation holds for both young and older people. Furthermore, Chiu (2009) claimed that self-efficacy is not only strongly associated with frequency of leisure engagement, but also the amount of time engaged in leisure activity.

Summary

Today, a majority of individuals experience the retirement transition. Although retirement is a normal life transition, it is still regarded as a significant transition due to the changes in many aspects of life. According to Sense of Coherence (SOC), an individual with a positive global orientation toward life is more likely to cope well with the stressful life transitions and such orientation toward life is determined by how an individual utilizes GRRs (Antonovsky, 1987). Particularly to retirees, leisure is a crucial domain among the GRRs, since its benefits to retirees' health and well-being (Dupuis & Alzheimer, 2008; Goodale & Goodbey, 1988; Mannell, 2007; Nets, Wu, Becker & Tennenbaum, 2005). Despite the advantages of leisure, it has been overlooked as a GRR. Specifically, leisure attitudes and self-efficacy are important predictors of leisure behaviors and experiences (e.g., Brown & Frankel, 1993; Chiu, 2009; Iso-Ahola & Mannell, 2004; Mobily, 1984). Therefore, this study explored how the orientation toward leisure could influence SOC and attitudes toward retirement.

CHAPTER 3

METHODOLOGY

Research Paradigm

A research paradigm influences the practice of research from attitudes to the selection of research tools and methods (Creswell, 2009). A paradigm (i.e., worldview) is defined as "patterns of beliefs and practices that regulate inquiry within a discipline by proving lenses, frames and processes through which investigation is accomplished" (Weaver & Olson, 2006, p. 460). Normally, a paradigm is understood to consist of three dimensions: ontology, epistemology, and methodology. Snape and Spacer (2003), for example, asserted that ontology emphasizes the position of the nature of reality, whether it exists independently from human conceptions and interpretations or not and whether it exists in the shared form or in multiple forms. Epistemology, on the other hand, refers to "ways of knowing and learning about the social world" (Snape & Spacer, 2003, p.13). Hence, it focuses on the relationships between the researcher and reality, what should be considered as truth, and in what way it is acquired. When it comes to methodology, it is defined as "a model to conduct research within the context of a particular paradigm" (Wahyuni, 2012, p.72), while a research method is a more practical application, which is a set of specific steps such as procedures, tools and techniques to gather and analyze data (Creswell, 2009).

Among the research paradigms, this study is based on post-positivism. Although post-positivism shares the same ontology (i.e. objectivism) with positivism, post-positivism has emerged by criticizing positivism's rigidity (Crotty, 1998). While positivists believe that reality is objective and value free, which could be generalized globally regardless of circumstances, post-positivists posit it is improbable to have value free research, since reality is only accessible

through people's interpretations (Hammersley, 1992; Wahyuni, 2012). Thus, post-positivists acknowledge a possible fallibleness and imperfectness particularly in human behavior studies, but constantly strive for the development of transparent assumptions and enhance the objectivity of the study (Snape & Spacer, 2003). In this sense, quantitative research was used to examine the research questions of this study.

In general, post-positivist researchers take a deductive approach, putting theory first and they strive to verify the theory. In a similar vein, this study proposed a model with multiple research questions, which are derived from literature. Then, this model and research questions were tested and examined with data collected from a random sample. Specifically, an on-line survey was employed to collect the data. A detailed description of the research methods including a description of sample and sampling, procedures, instruments and statistical analyses of this study follows.

Sampling

The target population of the study is retirees who reside in a Midwestern state. Specifically, three inclusion criteria were used in selecting participants for the study: a) individuals aged 55 to 75; b) who are retired from a primary career; and c) who reside in Illinois. The target sample was recruited through Survey Sampling International (SSI), a well-known on-line survey sampling company founded in 1977. SSI has expanded their recruiting pools from on-line communities, to social networks and to any types of websites through banners or messages to possess qualified and representative data. Hence, SSI has been widely used across 86 countries, which verifies the expertise and credibility of the company.

To recruit the participants, SSI posts the on-line survey and makes it visible and available to the potential participants who satisfy the inclusion criteria so they can participate the survey.

In this way, this survey was only available to the panels who satisfy the sampling criteria using stratified random sampling by age (i.e. age 55 -75) and residency (i.e. Illinois state). The survey was available to potential participants for a week with two reminders. Among the potential panels, 932 participants started the survey and out of those 714 completed it. However, since SSI did not have a function to screen non-retirees, non-retirees were identified based on the retirement status question (i.e., Are you retired from your main career?) in the questionnaire, which resulted in 451 participants. Still, 17 additional surveys were removed because of a high rate of missing values. The remaining minor random missing data were replaced with a new score suggested through the Expectation Maximization (EM) algorithm included in the missing data analysis function in SPSS (Dempster, Laird, & Rubin, 1977). Specifically, the EM algorithm repeats the expectation E-step and the maximization M-step based on the given parameter estimates until the iterations converge. This technique was preferred since it considers the relationship between the factors and supplement of limitations of the mean substitutions such as reducing variances. Furthermore, 11 multivariate outliers were excluded from the dataset considering the Mahalanobis distance (D^2) (Byrne, 2010). As a result, a total of 423 valid surveys were used in the data analyses.

Pros and cons of on-line surveys

An on-line survey was used to collect data for this study. As the Internet users grow considerably, many researchers paid significant attention to on-line surveys (Remillard, Mazor, Cutrona, Gurwitz & Tjia, 2014; Wright, 2005). Moreover, on-line surveys have become much easier and faster compared to the past. In the leisure field, Ward, Clark, Zabriskie and Morris (2012) examined studies that used on-line research methods published from 2000 to 2012 and identified over 30 studies. Specifically, the majority was conducted after 2009, which shows a

dramatic increase in this trend. Nie, Hillygus and Erbring (2002) pointed out multiple advantages of using an on-line survey to collect the data. First, an on-line survey could reduce time and effort. For example, when a researcher uses an on-line survey, he or she does not need to be present at the specific location and wait for the participants' responses on site. Moreover, since data are automatically saved when using an on-line survey, data entry is not needed as the data can be downloaded into several usable formats (e.g., excel, SPSS). Second, an on-line survey reduces costs to collect data. When data are collected through in-person or mail, a researcher needs to secure the location and pay for postage and/or printing, while an on-line survey does not require those costs. Third, an on-line survey enables access to a unique, but concentrated number of populations. For example, since there are many internet-based communities, a researcher is able to contact a relatively large number of people in the targeted population, which would be difficult to reach in person or by mail.

Despite the benefits of on-line surveys, there are still some concerns particularly regarding the participation of older populations. Mainly, two concerns of using an on-line survey with older adults were participants being unaccustomed to technology use and generalizability of the participants (Remillard et al., 2014). However, Zickuhr and Madden (2012) revealed Internet usage of all age groups is increasing and the 50-64 and 65 and over age groups are the fastest growing groups, since 2000. The authors found that 78% of the "age 50-64 group" and 53% of the "age 65 and over" group were using the Internet in 2012. Moreover, baby boomers, who started to enter old adulthood in 2011, are using the Internet on a daily basis and are considerably familiar with Internet usage and, by extension, they comprise 34% of the Internet population (Rainie, 2010). Plus, Survey Sampling International (SSI) obtains the potential participants mostly through on-line communities and websites so the potential participants are relatively

familiar with Internet usage. In addition, the sample of the study is limited to older adults between ages 55 and 75, since Internet usage drops significantly among older adults age 75 and over (Zickuhr & Madden, 2012).

Further, the response rate of older adults is not always lower than the average response rate of other age cohorts. Remillard, Mazor, Cutrona, Gurwitz and Tjia (2014), for example, conducted a systematic review to examine the usage of on-line surveys with older adults in published articles from 1984 to 2012. They found that 11 articles were published after 2011 and the range of response rates of the articles was from 11.5% to 100%. Sekeres et al's (2011) research showed the lowest response rate at 11.5%. This study focused on patients with Myelodysplastic syndromes (MDSs) to examine their disease severity, prognosis and treatment outcomes. Thus, the participants' medical condition might have caused the relatively low response rate. Also, Ann (2004) conducted a web-based survey delivered through email to 9,789 people age 55 and over. A total of 1,546 surveys were returned for a response rate of 15.8%. However, a relatively low response rate could have stemmed from not sending any reminder emails to the participants. This is because reminders are an essential way to improve the response rate (Cook, Health & Thompson, 2000). Even Kittleson (1997) claimed that follow-up reminders could double the response rate for on-line surveys. For these reasons, on-line surveys could be an emerging data collection method for the older adult population.

Pilot Test

The main purpose of the pilot test was to check the readability of the survey and the length of the survey. To do this, a total of 20 pilot participants were recruited from a nearby park district under the permission and guidance of the facility manager. The participants were asked to complete the paper-version of the questionnaire on site to check the completion time of the

survey and obtain feedback about the questionnaire. While the respondents took approximately 15-20 minutes to complete the questionnaire as expected, there was no complaint on the length of the questionnaire. However, a few pilot participants pointed out some unclear statements and left blank with the comments. Based on the participants' feedback, one item was changed. The item, "As long as I am working and not retired, it gives me a good reason to stay healthy" was revised to "If I was still working and not retired, it would have given me a better reason to stay healthy."

Instruments

Demographics

A total of 12 demographic questions were asked. Questions included age, gender, ethnicity/race, marital status, education, work status, health status, retirement decision, economic status and living arrangement. Examples are "What year were you born?", "What is the highest level of school you have completed or the highest degree you have received?", "When did you retire from your primary job?", "Do you perceive your retirement voluntary or forced?", and "In general, how do you perceive your health?".

Leisure Attitude (LA)

Due to the significant connection between LA, behaviors and experiences, understanding LA is an important step in leisure research (e.g., Hawkins, Foose & Binkley, 2004; Iso-Ahola & Mannell, 2004). While Triandis (1967) proposed using a multi-dimensional instrument due to the complexity of LA, Teixeira and Freire (2013) developed a shorter version of Leisure Attitude Scale-Short Version (LAS-SV) from Ragheb and Beard's (1992) Leisure Attitude Scale (LAS). The authors verified the model and demonstrated the goodness of model fit: ratio chi-square

statistics/degrees of freedom (X^2/df; 2.19), comparative fit index (CFI; 0.98), goodness-of-fit index (GFI; 0.94), adjusted goodness-of-fit (AGFI; 0.93), and root mean square error of approximation (RMSEA; 0.05). Moreover, the instrument showed an overall reliability of .91.

Due to the strength of Teixeira and Freire's (2013) Leisure Attitude Scale-Short Version (LAS-SV), it was used in this study (see Appendix A). This 18-item scale consists of three dimensions (i.e., cognitive, affective, behavioral) and each has six items. The cognitive dimension measures an individual's knowledge and beliefs about leisure (Ragheb & Beard, 1992). For example, "engaging in leisure activities is a wise use of time", "Leisure activities are beneficial to individuals and society", "Leisure activities increase one's happiness", and "Leisure activities help individuals to relax" (Texierira & Freire, 2013, p.61). The affective dimension, on the other hand, measures how an individual feels about leisure activities and experiences (Ragheb & Beard, 1992). For example, "My leisure activities give me pleasure", "I like to take my time while I am engaged in leisure activities", and "I like my leisure activities" (Texierira & Freire, 2013, p.61). The last dimension is the behavioral dimension, which measures an individual's actions related to leisure activities and experiences (Ragheb & Beard, 1992). This dimension includes an individual's actual verbalized and behavioral intentions toward leisure. For example, "I spend considerable time and effort to be more competent in my leisure activities", "I would spend time in education and preparation for leisure activities" and "I give my leisure high priority among other activities" (Texierira & Freire, 2013, p.61). The scale was measured using a 5-point Likert scale from 1=strongly disagree to 5=strongly agree. The scores for all items were summed to obtain a composite score, which ranges from 18 to 90. Respondents who scored higher on the scale have a more positive attitude toward leisure. Moreover, the

overall reliability of the leisure attitudes scale was .93, while the cognitive (.94), affective (.93), and behavioral (.79) components showed an acceptable reliability.

Leisure Self-Efficacy (LSE)

In this study, Chen, Gully and Eden's (2001) New General Self-efficacy (NGSE) scale was modified to measure LSE (see Appendix A). While the NGSE is the most recent measure of GSE (Scherbaum, Cohen-Charash & Kern, 2006), Chen, Gully and Eden (2001) conducted three studies to verify both measurements. Through the studies, they found that NGSE accounts for a considerable part of General Self-efficacy (GSE) and showed to be a more valid and reliable measurement than Sherer et al's (1982) General Self-Efficacy Scale (SGSE), which is a popular self-efficacy scale. For example, Chen, Gully and Eden (2001) examined the content validity of NGSE with 8 graduates and 14 undergraduates who are majoring in psychology fields. Moreover, the authors measured the correlation with NGSE with SGSE to check the concurrent validity and they both were significant predictors of General Self-Efficacy (GSE). Furthermore, several studies showed Cronbach's alpha values above .6, which indicate acceptable reliability of NGSE (Alexopoulos & Asimakopoulou, 2009; Chen, Gully, & Eden, 2001; Selmer & Fenner, 2009).

In this study, "when it comes to leisure" was added to the NGSE instrument so that the respondents could answer the questions based on leisure engagement. It consists of 8-items and the followings are examples: 1) "When it comes to leisure, I will be able to achieve most of the goals that I have set for myself"; 2) "When it comes to leisure, I am certain that I will accomplish them when facing difficult tasks"; 3) "When it comes to leisure, I think that I can obtain outcomes that are important to me"; and 4) "When it comes to leisure, I believe I can succeed at most any endeavor to which I set my mind". The items are measured with a 5-point Likert scale

from 1=strongly disagree to 5=strongly agree. Scores for each item were summed for a composite score between eight and 40, where a higher score indicates higher leisure self-efficacy. Moreover, this measurement had a Chronbach's alpha of .88, which indicates relatively high reliability.

Sense of Coherence (SOC)

SOC was measured with Antonovsky's Sense of Coherence Scale, the Orientation to Life Questionnaire (QLQ). It consists of three components: comprehensibility (a cognitive aspect); manageability (a behavioral aspect) and meaningfulness (a motivational aspect). In general, the scale has two versions, the 29-item version and the 13-item version, which was derived from the 29-item scale (Antonovsky, 1987/1993). Both versions have been applied to diverse fields and showed acceptable reliability and validity (e.g., Antonovsky, 1992; Bernstein & Carmel, 1991; Flannery & Flannery, 1990; Strümpfer, 1997; Suominen, Heleius, Blomberg, Untela & Koskenvuo, 2001). Eriksson and Lindstrom (2005), for example, conducted a systematic review of 458 scientific publications and 13 unpublished dissertations including the SOC-29 and the SOC-13 in terms of validity and reliability. Specifically, the authors presented diverse aspects of validity including face validity, content validity, construct validity, criterion validity, and predictive validity and revealed the validity of the scale. Moreover, the studies, which used either the 29-items or the 13-items version showed a .70 or higher for the Cronbach alpha. Furthermore, Hittner (2007) conducted a factor analysis to validate the 13-item SOC scale. The author not only found the model had a good fit, but the measure had no significant differences between men and women, which indicates equal validity of the measurement for both genders.

The SOC-13 Scale was used for this study (see Appendix A). Comprehensibility measures how an individual understands the life events and stimuli from the

surrounding/environment. Five items represent comprehensibility and examples are as follows: "Has it happened in the past that you were surprised by the behavior of people whom you thought you knew well?"; "Do you have the feelings that you are in an unfamiliar situation and don't know what to do?" and "Do you have very mixed-up feelings and ideas?" The second dimension, manageability, is an individual's belief that he or she can cope with the challenges they encounter. Four items measure the manageability and the following are examples: "Has it happened that people whom you counted on disappointed you?"; "Do you have the feelings that you are being treated unfairly?" and "Many people, even those with a strong character, sometimes feel like losers in certain situations. How often have you felt this way in the past?" The last dimension is meaningfulness and it measures how an individual perceives emotionally and cognitively whether it is worth coping with the challenges they confront. As such, it is closely related to a motivational aspect of life orientation. Four items measure meaningfulness and the followings are examples: "Do you have the feeling that you really don't care about what is going on around you?"; "Until now your life has had very clear goals and purpose"; and "Doing the things you do every day is a source of deep pleasure and satisfaction." Items were rated on a 7-point scale and the response options were varied such as from "1=very seldom," to "7=very often" or from "1=never happened" to "7=always happened". Antonovsky (1987) suggested using a composite score rather than measuring distinct constructs. In this sense, a composite score was calculated by summing across the 13-items ranging from 13 to 91. Five negative questions were reverse coded. In terms of reliability, however, "Manageability of SOC" (.68) was slightly lower than the threshold, while comprehensibility (.88), meaningfulness (.74) and overall SOC (.88) showed acceptable levels of reliability. To increase the reliability of the manageability component, the item-total statistics were reviewed to assess whether deleting an

item might increase the reliability. Unfortunately, deleting any of the items did not increase the reliability of the scale, but only decreased it. Therefore, I decided to tolerate the lower reliability of the scale, since .6 is also accepted as a cut-off point in some studies (Betemeyer, Bearden, & Sharma, 2003; Hair et al., 1998).

Attitudes Toward Retirement (ATR)

Since ATR is a complex and multi-dimensional construct (Antonovsky, Sagy, Adler & Visel, 1990), researchers attempted to use a multi-item scale to measure ATR (e.g., Atchley, 1975; Atchley & Robinson, 1982; Glamser, 1976). Among the measurements, Anson, Antonovsky, and Sagy's (1989) ATR measurement was used. It consists of four domains, which are gains in leaving work, gains in entering retirement, losses of leaving work and losses in entering retirement, since gains and losses without context could be ambiguous. However, they reported that losses of leaving work and losses in entering retirement were merged into losses associated with retirement due to the poor fit and an *"unreasonable"* correlation between the two (p.359). While relatively few studies have used this instrument (e.g., Adams et al., 2002), this instrument was adopted in the present study for three reasons. First, this instrument already has been explored with SOC and showed a significantly positive relationship (Antonovsky, Sagy, Adler, & Visel, 1990). Second, this measure examines ATR more in-depth by considering both the gains and losses. Lastly, this measure has demonstrated acceptable reliability. Anson, Antonovsky, and Sagy (1989), for example, revealed a Cronbach's alpha of .86 on losses associated with retirement, a Cronbach's alpha of .60 for gains in retirement, and a Cronbach's alpha of .62 for gains in leaving work.

The measure includes a total of 20 items with three domains (see Appendix A). The following are examples of the items: "It is good to retire because one is freed from everything

bad about one's job"; "Retirement gives more leisure time to do what one wants"; and "Retirement means that time drags, weighs on your hands." A 5-point Likert scale was used to measure ATR from 1=strongly disagree to 5=strongly agree. The range of scores was 20 to 100 and eleven negative questions were reversed coded. Moreover, the Cronbach's alpha value of the overall items was .88 and the "Gains from retirement" (.77), and the "Losses from retirement" (.90) components were beyond the threshold as well.

Statistical Analyses

In this study, all the procedures were conducted using both SPSS (version 18.0) and AMOS (version 18.0). These software programs were used for data cleaning, managing missing data, checking the three assumptions of SEM (i.e., normality, multicollinearity, and linearity). AMOS software was used for Confirmatory Factor Analysis (CFA) and SEM employing the maximum likelihood function. Due to the correlations among the factors, oblique rotation was applied, and 0.4 was used as a threshold for factor loading (λ) so that items lower than .4 were excluded in the analysis (Hair et al., 1998). Moreover, an independent T-test was applied to compare voluntary retirees and forced retirees regarding the role of leisure variables (i.e., leisure attitudes and leisure self-efficacy) in ATR through SOC.

SEM is an effective technique to evaluate the model and understand directionally of the relationships among a set of variables, since it examines multiple equations simultaneously (Lei & Wu, 2007). SEM is viewed as an extension of ANOVA and multiple regression analysis, combining a factor analysis and a regression/path analysis (Ullman, 2006). Specifically, SEM consists of the measurement model and the structural model. The measurement model refers to measuring relationships among the latent constructs and their subordinate dimensions, which is

viewed as a factor analysis. The structural model, on the other hand, refers to measuring the relationships among the constructs. Furthermore, SEM designates independent and dependent variables with the terms exogenous and endogenous, respectively. Exogenous refers to a variable, which is not predicted by other variables, while endogenous refers to a variable, which is predicted by other variables. In this study, LA and LSE would be categorized as exogenous variables, whereas SOC and ATR would be the endogenous variables in this study.

In particular, Tomarken and Waller(2005) pointed out two main strengths of SEM. First, since SEM consists of factor analysis and multiple regression analysis, it is able to measure the relationships between latent constructs and their indicators and the relationships among the latent constructs simultaneously. Second, SEM has the capability to measure complex models consisting of multiple linear equations. Without SEM, it might require numerous regression analyses to measure the relationships among the constructs. However, SEM is capable of measuring the relationships among the constructs with a single analysis. In addition to these strengths, Brown (2006) pointed out that SEM accounts for measurement error, while other analyses tend to assume the observed indicators are measured without error. Still, it has some limitations as well. The most common weakness of SEM is that it requires a relatively large sample size. According to Kline (2005), a minimum sample size should be larger than whichever is larger, the standard between 200 participants or 5-20 times the number of parameters to be estimated. This is because a small number of participants could cause limited statistical power and technical problems in the analysis (Tomarken & Waller, 2005).

While SEM has both strengths and weaknesses, it is a crucial step to assess the model fit, since it determines how well the model represents the data (Hooper, Coughlan, & Mullan, 2008). Due to its' significance and fit, indices have their pros and cons, and multiple fit indices are

utilized to check the model fit. Roughly, fit indices are divided into absolute fit indices and incremental fit indices. Absolute fit indices assess how well the proposed model fits the sample data (Hox & Bechger, 1998). In other words, how well the proposed theory fits the sample data well. Incremental fit indices, on the other hand, determine the "improvement of model fit over that of a baseline model, usually the model of independence or uncorrelated variables" (Kim & Bentler, 2006, p.169). In this study, among the absolute fit indices, chi-square, the root mean square error of approximation (RMSEA) and the standardized root mean square residual (SRMR) were used, while the comparative fit index (CFI) and the Tucker–Lewis index (TLI) were used as incremental fit indices. Each fit-index has different acceptable levels: x^2/df ratios between 2 and 5 indicate a good fit for x^2; values with over .9 are regarded as a good fit to the data for CFI and TLI; and values with ranges from 0.05 to 0.08 are viewed as a good fit for the RMSEA and SRMR (Byrne, 2010; Jung, 2007; Hooper, Coughlan, & Mullen, 2008) and the same criterion applies to this study.

CHAPTER 4

RESULTS

This section consists of five main parts: a) preliminary data analysis; b) description of sample; c) description of measurements; d) confirmatory factor analyses and e) research questions. First, in the preliminary examination, the assumptions of the SEM were tested before conducting the main analyses. Specifically, this includes checking the normality of the data, multicollinearity, and linearity. Second, characteristics of respondents were explored to describe the participants of this study. Third, in the description of measurements, mean scores for the items and factors are presented. Fourth, the confirmatory factor analysis for each main factor was examined to assess the reliability and validity of the measures. Moreover, the structural model was assessed to examine the validity of the model. Lastly, the outcomes of four main research questions were investigated.

Preliminary Data Analysis

Checking Assumptions

Prior to the main analyses, the three principle assumptions were checked: normality, multicollinearity and linearity (Tabachnick & Fidell, 2001). First, since SEM is a multivariate analysis, the data were tested for both univariate and multivariate normality. To check the univariate normality of the data, skewness and kurtosis of each component (e.g., the affective component, leisure self-efficacy, the meaningfulness component, and the 'gains in entering retirement' component) were examined. According to Kline (2005), the threshold of normality is 10.0 for skewness and 3.0 for kurtosis. However, the affective component and cognitive component of LA did not satisfy this criteria, therefore, a Z-score was applied to identify the

univariate outliers. Thereafter, any observation with a score beyond ± 3.3 was considered a univariate outlier (Tabachnick & Fidell, 2001) and a total of 17 outliers were identified. Instead of removing the univariate outliers, their values were replaced with the mean score of the component, so that other measurement values were maintained in analyses, but did not affect the mean score of the measurement. After managing the univariate outliers, multivariate normality was checked with Mardia's normalized estimate. Since Mardia's normalized estimate (76.12) was over the recommendation threshold of 30 (Kline, 2005), outliers were also checked considering the value of Mahalanobis distance (d^2) (Bryne, 2002). Through the process, a total of 11 multivariate outliers were identified and removed from the analyses. As a result, the data satisfied the criteria for both univariate and multivariate normality.

Second, a correlation matrix was created to examine multicollinearity among the factors. In general, multicollinearity becomes an issue, when the correlation coefficients among variables are .85 and above (Kline, 1995, Tabachnick & Fidell, 2001). However, since all the variables ranged from .33 to .59, multicollinearity was not an issue in the study. Moreover, the values of variance inflation factors (VIF), an index for multicollinearity, was lower than 3, which is the cutoff-point of the VIF (<3.0) (Tabachnick & Fidell, 2001). Third, the linearity among the factors was investigated using the curve estimation function in SPSS (Carver & Nash, 2011). Specifically, while fixing ATR as a dependent variable, LA, LSE and SOC were examined to check the linearity with the dependent variable. All the relationships among the main factors showed that they are significantly linear, which satisfied the assumption of linearity.

Description of Sample

After data cleaning and screening, a total of 423 respondents' data were used for the analyses. According to the sample criteria, the respondents ranged in age from 55 to 75 and the mean age was 65.7, while 67.2% were between age 60 and 70. Of the 423 respondents, there were more males (51.3%) than females (48.7%) and over half of them had a bachelor's degree or higher (52.4%). The majority of the sample was white (86.8%) followed by Black/African American (8.7%) and Hispanic/Latino (2.1%). Almost two thirds of the respondents were married (64.0%), while 13.5% were separated or divorced and 9.5% were widowed and 9.5% of the respondents were never married. While the majority of the respondents reported that they live in their own house (90.3%), 67.1% live with their spouse/partner, 22.4% live alone, and 9.0% live with other family members.

In addition, the average time since retirement in the sample was 7.2 years, while the median time since retirement year was 5.5 years. Specifically, slightly over half of the participants (55.5%) had been retired for more than five years, while 44.5% had retired within five years. A large number of respondents thought their retirement was voluntary (70.9%), while 21.5% retired forcedly. Most of them (66.2%) did not work at all after retirement, but 6.9% of the respondents were working because they must, while 12.3% of the respondents chose to work. Regarding health, 77.4% of the sample answered that their health is good or better. Interestingly, 49.4% asserted that their health status did not change compared to pre-retirement, while 25.5% reported that their health got worse after retirement and 25.0% reported it got better (Table 1).

Table 1. *Description of Sample*

	N	Mean	Std. Deviation
AGE	423	65.68	4.79
		N	**Valid Percent**
GENDER			
Male		217	51.7
Female		203	48.3
MARITAL			
Never married		37	8.8
Separated/Divorced		57	13.5
Widowed		40	9.5
Living with a partner		17	4.0
Married		270	64.0
Other		1	.3
EDUCATION			
Some high school		3	.7
High School graduate		59	14.0
Some college credit		85	20.1
Trade/Technical/ Vocational training		15	3.5
Associate degree		39	9.2
Bachelor's degree		117	27.7
Master's degree		87	20.6
Doctorate degree and above		17	4.0
ETHNICITY/RACE			
White		464	86.8
Black or African American		37	8.7
Hispanic or Latino		9	2.1
Native American		4	.9
Asian/Pacific Islander		5	1.2
Other		5	1.2
RETIREMENT DECISION			
Forced		91	21.5
Voluntary		293	70.9
Other		29	7.0
PAID EMPLOYMENT			
Homemaker		30	7.3
Part-time (needed)		21	5.0
Full-time (needed)		8	1.9
Part-time (not needed)		47	11.4
Full-time (not needed)		4	.9
Not working at all		280	67.8
Other		23	5.6

Table 1. *Description of Sample* (Continued)

	N	**Valid Percent**
LIVING WITH		
Alone	94	22.4
With a partner/spouse	282	67.1
With other family	38	9.0
With friend(s)	1	.2
With (a) roommate(s)	2	.5
Other	3	.7
LIVING IN		
My own house	380	90.3
Family's house	19	4.5
A retirement community	4	1.0
Other	17	4.0
HEALTH		
Poor	14	3.3
Fair	81	19.3
Good	152	36.2
Very good	118	28.1
Excellent	55	13.1
HEALTH COMPARISION		
Much worth	25	5.9
Somewhat worse	84	20.0
About the same	208	49.4
Somewhat better	79	18.8
Much better	25	5.9

Description of Measurements

In this study, a total of four main factors were assessed: Leisure Attitudes (LA), Leisure Self-Efficacy (LSE), Sense of Coherence (SOC) and Attitudes Toward Retirement (ATR). The correlations between the main factors and between the main factors and its' subordinate components were assessed (Table 2). Specifically, LA was positively associated with LSE (.59**), SOC (.34**), and ATR (.40**), while LSE was significantly correlated with SOC (.46**) and ATR (.45**) and SOC showed the strongest correlation with ATR (.59**). Also, the sub-domains of the factors were modestly to strongly correlated (from .67 to .90) with each of the main factors.

In addition, the mean values of each factor and each measurement item were examined. First, LA included a total of 18-items and the mean score was 4.01, with a range of 1 to 5. The cognitive dimension (6-items) had a mean score of 4.39, the Affective dimension's mean was 4.33 (6-items), and the mean of the Behavioral dimension (6-items) was 3.39. Second, LSE consisted of 8-items and the range was 1 to 5, with a mean score of 3.89. Third, a total of 13 questions assessed SOC and the mean score was 5.15, with a range of 1 to 7. The mean score of the three components of SOC were 5.10 (Comprehensibility, 5-items), 5.05 (Manageability, 4-items), and 5.04 (Meaningfulness, 4-items). Lastly, ATR involved a total of 20-items and had a mean score of 3.97, with a range of 1 to 5. Specifically, the mean score of the 'gains from retirement' (9-items) was 3.93 and 'losses from retirement (11-items) was 4.04 (Table 3.).

Table 2. *Correlation Matrix among the Main Factors and the Subordinate Components*

	1	1-1	1-2	1-3	2	3	3-1	3-2	3-3	4	4-1	4-2
1. LA	1											
1-1. Cog	.858**	1										
1-2. Aff	.906**	.738**	1									
1-3. Beh	.690**	.329**	.471**	1								
2. LSE	.586**	.430**	.565**	.463**	1							
3. SOC	.339**	.284**	.380**	.210**	.459**	1						
3-1. Com	.275**	.234**	.328**	.141**	.378**	.876**	1					
3-2. Ma	.206**	.174**	.242**	.122**	.329**	.893**	.709**	1				
3-3. Me	.421**	.347**	.440**	.289**	.493**	.868**	.677**	.622**	1			
4. ATR	.399**	.290**	.461**	.262**	.454**	.594**	.526**	.483**	.547**	1		
4-1. Gains	.408**	.282**	.425**	.351**	.412**	.343**	.307**	.230**	.354**	.660**	1	
4-2. Losses	.310**	.223**	.372**	.207**	.381**	.596**	.518**	.511**	.535**	.895**	.396**	1

Note. ** $p < .001$. * $p < .05$; LA=Leisure Attitudes; Cog= Cognitive Component; Aff= Affective Component; Beh= Behavioral Component; LSE=Leisure Self-Efficacy; SOC=Sense of Coherence; Com=Comprehensibility; Ma=Manageability; Me=Meaningfulness; ATR= Attitudes Toward Retirement; Gains=Gains from Retirement; LR= Losses from Retirement

Table 3. Descriptive Statistics of Measurement Items

Measurement Items		**Mean**	**S.D.**
Leisure Attitudes (LA)		4.01	.54
Cog-1	Engaging in leisure activities is a wise use of time.	4.25	.78
Cog-2	Leisure activities are beneficial to individuals and society.	4.31	.72
Cog-3	Leisure activities contribute to one's health.	4.38	.72
Cog-4.	Leisure activities increase one's happiness.	4.46	.73
Cog-5.	Leisure activities help to renew one's energy.	4.29	.73
Cog-6.	Leisure activities help individuals to relax.	4.39	.71
Aff-1	My leisure activities give me pleasure.	4.39	.69
Aff-2	I feel that leisure is good for me.	4.39	.68
Aff-3	I like to take my time, while I am engaged in leisure activities.	4.17	.75
Aff-4	My leisure activities are refreshing.	4.18	.75
Aff-5	I feel that the time I spend on leisure is not wasted.	4.32	.72
Aff-6	I like my leisure activities.	4.41	.68
Beh-1	I spend considerable time and effort to be more competent in my leisure activities.	3.52	.85
Beh-2	I would attend a seminar or a class to be able to do leisure activities better.	2.96	1.12
Beh-3	I support the idea of increasing my free time to engage in leisure activities.	3.61	.87
Beh-4	I engage in leisure activities even when I am busy.	3.49	.97
Beh-5	I would spend time in education and preparation for leisure activities.	2.99	1.10
Beh-6	I give my leisure high priority among other activities.	3.73	.94
Leisure Self-Efficacy (LSE)		3.89	.55
LSE-1	I will be able to achieve most of the goals that I have set for myself.	3.76	.77
LSE-2	I am certain that I will accomplish them when facing difficult tasks.	3.72	.74
LSE-3	I think that I can obtain outcomes that are important to me.	4.08	.54
LSE-4	I believe I can be succeeded at most any endeavor to which I set my mind.	3.97	.70
LSE-5	I will be able to successfully overcome many challenges.	3.89	.70
LSE-6	I am confident that I can perform effectively on many different tasks.	4.04	.69
LSE-7	I can do most tasks very well compared to other people.	3.76	.81
LSE-8	I can perform quite well even when things are tough.	3.93	.70
Sense of Coherence (SOC)		5.15	.95
Me-1	Do you have the feeling that you really don't care about what is going on around you? (R)	5.51	1.47
Me-2	Until now your life has had:	5.37	1.22
Me-3	Doing the things I do every day is:	5.31	1.17

Table 3. Descriptive Statistics of Measurement Items (Continued)

Measurement Items		**Mean**	**S.D.**
Me-4	Do you often feel that there is little meaning in the things you do in your daily life?	5.31	1.61
C-1	Has it happened in the past that you were surprised by the behavior of people whom you thought... (R)	4.10	1.37
C-2	Do you have the feeling that you are in an unfamiliar situation and don't know what to do?	5.43	1.59
C-3	Do you have very mixed-up feelings and ideas?	5.37	1.52
C-4	Do you often experience the feelings that you would rather not have to endure?	5.34	1.60
C-5	When certain events occurred, you generally found yourself overestimated or underestimated its importance?	5.06	1.29
Ma-1	Has it happened that people whom you counted on disappointed you? (R)	4.15	1.06
Ma-2	Do you have the feeling that you are being treated unfairly?	5.22	1.70
Ma-3	Many people -even though with a strong character- sometimes feel like losers in certain situations: (R)	5.40	1.61
Ma-4	Do you often feel that you are not sure you can control?	5.39	1.45
Attitudes Toward Retirement (ATR)		3.97	4.03
Gains-1	Retirement gives more leisure time to do what I want.	4.27	.87
Gains-2	When I retire, it gives me the luxury of not living according to a schedule determined by work.	4.28	.85
Gains-3	Retirement means being free to do what I want to do, not what someone else decides I have to do.	4.23	.83
Gains-4	After a lifetime of work, I should be entitled to some years of leisure (i.e., free time to pursue activities I enjoy).	4.44	.75
Gains-5	Retirement gives people a chance to reestablish relations with old friends and meet new people.	3.93	.87
Gains-6	Retirement strengthens personal relations, especially between husband and life.	3.66	.89
Gains-7	It's worthwhile retiring, because it means the end of all that is irksome about work.	3.66	.98
Gains-8	In the first three years after retirement, my health may improve.	3.20	.96
Gains-9	It's good to retire because I am freed from everything bad about my job.	3.50	1.12
Losses-1	Retirement means that I feel that I am getting old. (R)	3.22	1.13
Losses-2	If I were still working and not retired, it would have given me a better reason to stay healthy. (R)	3.83	1.11
Losses-3	Retirement means that time drags on. (R)	4.17	.98
Losses-4	Retirement means being more isolated from people. (R)	3.74	1.05
Losses-5	Retirement means being bored. (R)	4.32	1.00
Losses-6	When I retire, it's harder to say just who I am. (R)	3.94	1.05

Table 3. Descriptive Statistics of Measurement Items (Continued)

Measurement Items		**Mean**	**S.D.**
Losses-7	Retirement means more friction between me and other family members. (R)	4.18	1.00
Losses-8	Retirement means that I am no longer contributing to society. (R)	4.26	.90
Losses-9	Life after retirement is not very useful. (R)	4.26	.88
Losses-10	Retirement is part of a broader pattern of withdrawing from lots of other activities.	3.83	1.07
Losses-11	Retirement means being lonely. (R)	4.38	.92

Note: (R)= Reverse coded; Com=Comprehensibility; Ma=Manageability; Me=Meaningfulness; Gains=Gains from Retirement; Losses= Losses from Retirement

Confirmatory Factor Analysis

First, the Leisure Attitudes Scale (Beard & Ragheb, 1982) was used to assess LA. It consists of three components, which are the cognitive component, the affective component, and the behavioral component. When the validity of the measurement was examined, the original model showed a chi-square statistics/degrees of freedom (χ^2/df) value of 4.905 ($p<.001$), CFI of .912, TLI of .898, RMSEA of .096 and SRMR of .056. Although the fit indices were beyond the threshold, the modification indices and the sample residual covariance matrix were carefully reviewed to improve the model fit. After reviewing the outputs, the beh-14 item ("I would attend a seminar or a class to be able to do leisure activities better") showed a noticeably high value of modification indices and high residual covariance with other components. In other words, this item was a high cross-loading item. Moreover, the Beh-14 item could have been dropped because there are very few leisure related seminars or educational programs for older adults (Kleiber & Linde, 2014) so that it might not link with the respondents. As a result, the 17 items/3-factor structure for the Leisure Attitudes Scale is used in subsequent analyses and this modified scale yielded a chi-square statistics/degrees of freedom (χ^2/df) value of 3.361 ($p<.001$), CFI of .950, TLI of .941, RMSEA of .075 and SRMR of.035. The values not only satisfied the criteria of the fit indices, but also produced a substantially better fitting model compared to the original model. Moreover, all the factor loadings (λ) were significant at the .001 level and had a range of.54 to .90.

Second, the New General Self-efficacy (NGSE) scale (Chen, Gully & Eden, 2001) was used to assess LSE. When assessing the validity of the measurement, the original measurement model fit showed chi-square statistics/degrees of freedom (χ^2/df) value of 9.686 ($p<.001$), CFI of .906, TLI of .868, RMSEA of .143 and SRMR of .058, which indicated a relatively poor model

fit. To improve the model fit, the modification indices and the sample residual covariance matrix was closely examined. After reviewing the outcomes, three items were removed considering its' high values of modification indices and overlap with other components. Specifically, the LSE-1 item ("I will be able to achieve most of the goals that I have set for myself.") and the LSE-3 item ("I think that I can obtain outcomes that are important to me.") might be removed because older adults are less likely to view leisure consciously as something to set goals and strive to obtain outcomes, but they might think of building social relationships and having a good time (Beggs, et al., 2014; Mannell & Kleiber, 1997). Also, since older adults are more likely to utilize leisure to develop social connectedness, they might choose activities they could cooperate with others to develop friendships such as voluntary work or cultural activities rather than comparing with others (Beggs, et al., 2014; Maynard & Kleiber, 2005). Since the LSE-7 item ("I can do most tasks very well compared to other people.") is less likely to reflect the respondents of this study, it was excluded. As a result, the modified model yielded a chi-square statistics/degrees of freedom (χ^2/df) value of 3.619 ($p<.005$), CFI of .987, TLI of 975, RMSEA of .079 and SRMR of .021. Compared to the original model fit, the modified model showed a considerable improvement in the fit indices and all the values were beyond the cut-off points of fit indices. Moreover, all the factor loadings (λ) were significant at the .001 level and showed a range of .72 to .90.

Third, the Sense of Coherence Scale or the Orientation to Life Questionnaire (Antonovsky, 1987) was used to assess SOC. This construct consisted of three components, which are "Comprehensibility", "Manageability", and "Meaningfulness". When assessing the validity of the measurement, the original measurement model fit showed a chi-square statistics/degrees of freedom (χ^2/df) value of 5.271 ($p<.001$), CFI of .872, TLI of .839, RMSEA

of .101 and SRMR of .065, which indicated relatively a poor model fit. To improve the model's fit, the com-2 item ("Has it happened in the past that you were surprised by the behavior of people whom you thought you knew well?") was excluded from the measurement for the first step due to a low factor loading (λ=.34) (Hair et al., 1998; Ingersoll, 2001). Thereafter, after reviewing the modification indices and the sample residual covariance matrix, the com-6 item ("Do you have the feeling that you are in an unfamiliar situation and don't know what to do?") was removed from the comprehensibility component considering its high values of modification indices and overlap with other components. As a result, the modified model yielded chi-square statistics/degrees of freedom (χ^2/df) value of 2.160 ($p<.005$), CFI of .968, TLI of .958, RMSEA of .052 and SRMR of .037. Compared to the original model's fit, the modified model showed a considerable improvement in the goodness of fit indices and all the values were beyond the cut-off points of fit indices. Moreover, all the factor loadings (λ) were significant at the .001 level and showed the range of .46 to .87.

The Attitudes Toward Retirement Scale (Antonovsky, Sagy, Adler & Visel, 1990) was used to assess ATR. When assessing the validity of the measurement, the original measurement model fit showed a chi-square statistics/degrees of freedom (χ^2/df) value of 3.407 ($p<.001$), CFI of .878, TLI of .863, RMSEA of .076 and SRMR of .080, which indicated relatively poor model fit. To improve the model fit, the Gain-15 item (In the first few years after retirement, my health may improve and/or did improve) was excluded first due to low factor loading (λ=.33). Thereafter, after reviewing the modification indices and the sample covariance matrix, the Gain-17 item ("It's good to retire because I am freed from everything bad about my job?") and the Gain-13 ("It's worthwhile retiring because it means the end of all that is irksome about work") showed a conspicuously high score due to the strong overlap with each other. While one of the

items should be removed to increase the validity of the model, the Gain-17 item was removed due to higher factor loading than the Gain-13. As a result, the modified model yielded a chi-square statistics/degrees of freedom (χ^2/df) value of 2.872 ($p<.001$), CFI of .918, TLI=.907, RMSEA of .067 and SRMR of .073. Compared to the original model fit, the modified model showed a considerable improvement in the goodness of fit indices and all the values were beyond the cut-off points. Moreover, all the factor loadings (λ) were significant at the .001 level and showed the range of .46 to .81 (Table 4; Figure 2).

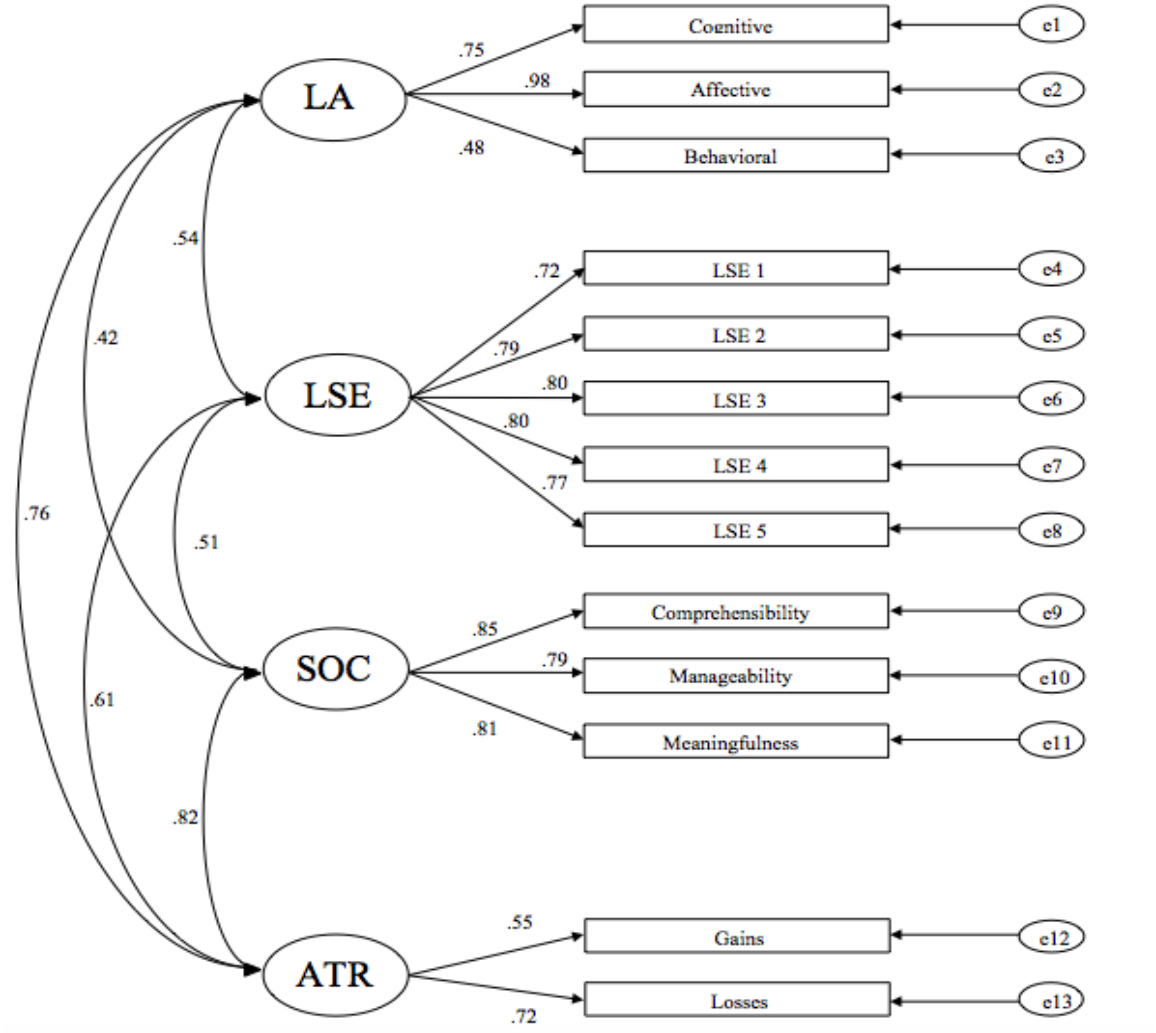
The validity of overall measurement model was assessed using confirmatory factor analysis (CFA). As a result of CFA, while the model yielded a chi-square statistics/degrees of freedom (χ^2/df) value of 3.273 ($p<.001$), it showed acceptable model fit indices such as CFI (.950), TLI (.934), RMSEA (.073) and SRMR (.066). Moreover, the range of factor loadings (λ) was .55 to .98 at the .001 significant levels. This indicates that the measurement model is valid to be used to explore the structural model of the study (see Figure 2).

Table 4. Confirmatory Factor Analysis Model Fit

Fit Indices	Statistic					
	LA	LSE	SOC	ATR	Measurement	Structural
Chi-Square	389.900	18.095	67.761	384.891	193.099	190.258
Df	116	5	41	124	59	59
P	.000	.003	.005	.000	.000	.000
x/df	3.360	3.619	1.653	2.872	3.273	3.225
CFI	.950	.987	.983	.918	.950	.950
TLI	.941	.975	.977	.907	.934	.934
RMSEA	.075	.079	.039	.067	.073	.073
SRMR	.035	.0206	.0309	.0726	.0658	.0650

Note: LA=Leisure Attitudes; LSE=Leisure Self-Efficacy; SOC=Sense of Coherence; ATR=Attitudes Toward Retirement; Measurement=Overall Measurement Model; Structural=Overall Structural Model

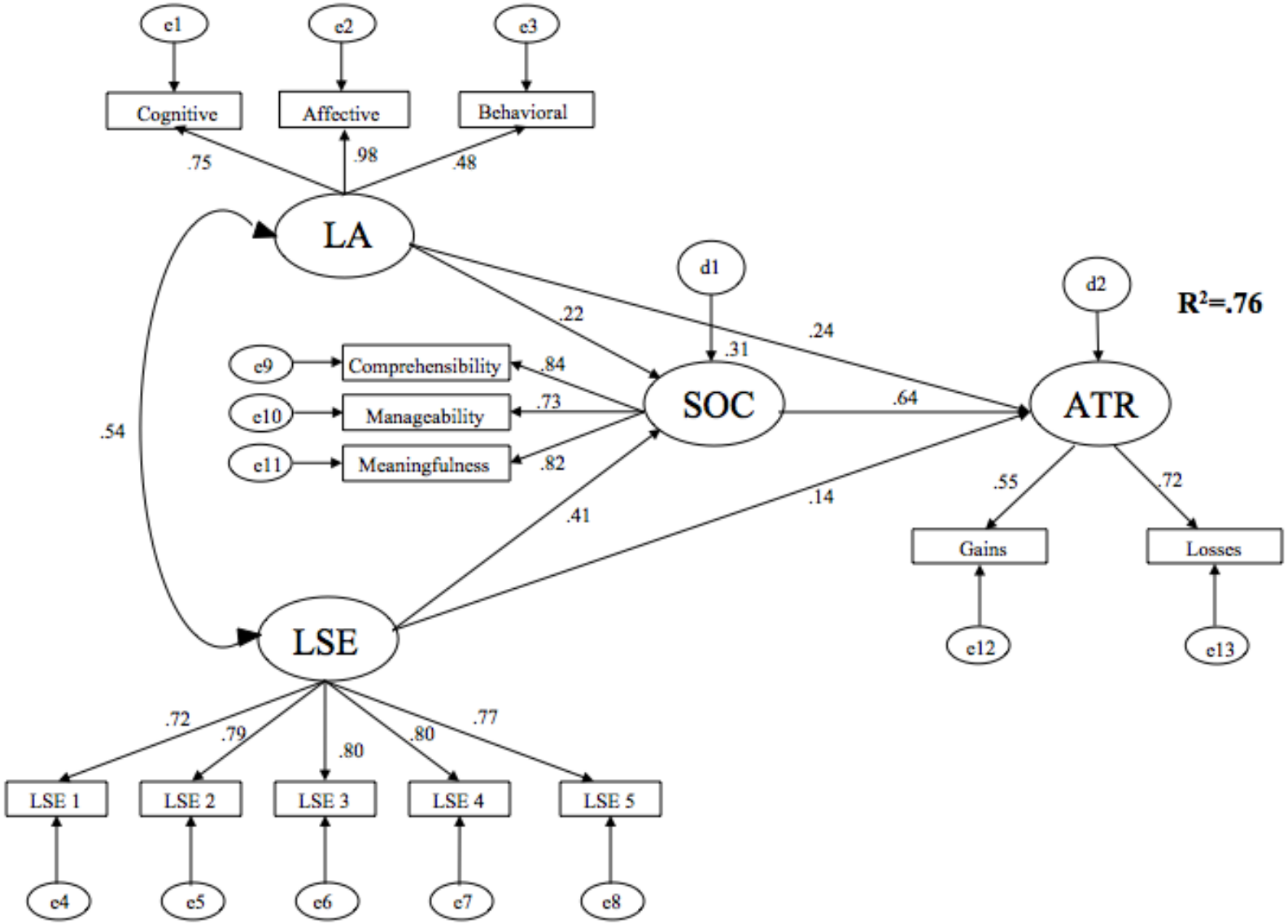
Figure 2. The Measurement Model



The Structural Model

Based on the valid measurement model, an original structural model was proposed (Figure 3). This structural model showed an acceptable model fit: CFI (.950), TLI (.934), RMSEA (.073) and SRMR (.065). Still, the modification indices (MI) were examined to identify potential directions to improve the model fit. In particular, possible causal directions and covariances were seriously considered. First, the MI suggested a possible connection between the behavioral component of LA (the observed variable, a variable) and LSE (the latent variable, a factor). Even though they share a common theoretical background, I decided not to apply the connection, since they were in different levels. Second, the MI recommended several possible covariances among the factors or error terms to improve the model fit. However, considering the theoretical backgrounds among the factors and variables, none of the suggestions could be rational. Therefore, the original model was sustained without any modifications and the relationships among the factors were explored based on this model (Table 4).

Figure 3. The Structural Model



Research Questions

In this study, a total of four research questions were examined: 1) Do leisure variables (i.e., leisure attitudes (LA), leisure self-efficacy (LSE)) shape attitudes toward retirement (ATR)?; 2) Do leisure variables (i.e., leisure attitudes (LA), leisure self-efficacy (LSE)) shape sense of coherence (SOC)?; 3) Does sense of coherence (SOC) serve as a mediator between leisure variables (i.e., leisure attitudes (LA), leisure self-efficacy (LSE)) and attitudes toward retirement (ATR)?; and 4) Does the retirement decision (voluntary or involuntary) influence the retirement transition, as measured by ATR, SOC, LA and LSE? However, these research questions could be separated into two different sections. For the section one, first three research questions assessed the structural model to understand the relationships among the main factors (i.e., LA, LSE, SOC, and ATR) using SEM. For the section two, the last research question focused on comparing between voluntary retirees and forced retirees regarding the main factors applying both the independent T-Test and SEM.

Relationship among the Main Factors

To examine the first research question (i.e., Do leisure variables shape attitudes toward retirement), two specific hypotheses were tested: H1) Leisure attitudes (LA) have a positive association with attitudes toward retirement (ATR); and H2) Leisure self-efficacy (LSE) has a positive association with attitude towards retirement (ATR). Based on the results, both H1 and H2 were supported, which indicates LA and LSE have direct effects on ATR. The direct effect of LA demonstrated .24 ($p<.001$) of standardized regression coefficient toward ATR, while the direct effect of LSE demonstrated .14 ($p.<.05$) of standardized regression coefficient toward ATR (Figure 2). This shows a respondent's leisure attitudes and leisure self-efficacy is playing roles to shape his or her attitudes toward retirement, however, LA showed a stronger direct effect

on ATR compared to LSE. Also, two hypotheses were tested to examine the second research question: H3) LA is positively associated with SOC; and H4) LSE has a positive association with SOC. The results showed that both hypotheses were supported (Figure 2). In other words, both LA and LSE were not only positively related to SOC, but significant predictors of SOC. While both LA and LSE account for 31% of SOC's variance all together, LSE (.41) demonstrated a stronger standardized regression coefficient compared to LA (.22) toward SOC. This indicates that the respondents were more actively utilizing LSE to enhance SOC. Lastly, three hypotheses were tested to understand the research question three: H5) SOC has a positive association with ATR; H6) The impact of LA on ATR is less after controlling the effect of SOC; and H7) The impact of LSE on ATR is less after controlling the effect of SOC. All the hypotheses were supported based on the findings (Figure 2). First, SOC (.64) was the strongest determinant of ATR compared to both LA and LSE, which indicates that SOC is a principle factor to enhance ATR. Second, when considering SOC as the mediator between leisure variables and ATR, the association between leisure variables and ATR was reduced significantly. While the direct effect of LA was reduced from .42 to .24 and demonstrated the indirect effect of .14 toward ATR, the direct effect of LSE was reduced from .42 to .14 and demonstrated the indirect effect of.26 toward ATR. Both direct and indirect effects of leisure variables on ATR were tested using the bootstrap method, and all the effects were statistically significant at the .005 level (Cheung & Lau, 2008). This result indicates that SOC is a partial mediator between both LA and ATR and LSE and ATR (Table. 5)

Comparison between Voluntary Retirees and Forced Retirees

Unlike first three research question, the research question four (i.e., does the retirement decision (voluntary or involuntary) influence the retirement transition?) compared the difference

between voluntary retirees and forced retirees using the Independent T-Test and SEM. Specifically, the four hypotheses were assessed the research question: H8) voluntary retirees will have more a positive LA than forced retirees; H9) voluntary retirees will have higher LSE than forced retirees; H10) voluntary retirees will have a higher SOC than forced retirees; and H11) voluntary retirees will have a more positive ATR than forced retirees. According to the Independent T-Test, voluntary retirees showed significantly higher scores on all the factors (i.e., LA, LSE, SOC, and ATR) than forced retirees (Table 6). Furthermore, to explore the differences between voluntary retirees and forced retirees regarding the regression estimates coefficient, multi-group moderation was tested using the Chi-Square Difference Test. The differences between voluntary retirees and forced retirees were identified from two regression coefficients. One was the regression coefficient of SOC toward ATR. Compared to voluntary retirees, SOC played a significantly stronger role in ATR among forced retirees. The other was the regression coefficient of LA toward ATR. While the coefficient of LA was .52 for voluntary retirees, it was only -.02 for forced retirees (Table 7). In sum, while both LA and SOC were shaping ATR among voluntary retirees, only SOC was shaping ATR among forced retirees. This shows that LA plays a significant role in voluntary retirees' ATR, but forced retirees were only relying on SOC to shape their ATR.

Table 5. *The Total, Direct and Indirect Effect of LA, LSE, and SOC on ATR.*

Variable Effect	Total Effects (Std.)		Direct Effects (Std.)		Indirect Effects (Std.)	
	Estimate	P	Estimate	P	Estimate	P
SOC <--- LA	.203	.008	.203	.008		
SOC <--- LSE	.402	.002	.402	.002		
ATR <--- SOC	.634	.002	.634	.002		
ATR <--- LA	.379	.002	.250	.002	.129	.008
ATR <--- LSE	.406	.002	.151	.002	.255	.002

Note: LA=Leisure Attitudes; LSE=Leisure Self-Efficacy; SOC=Sense Of Coherence; ATR= Attitudes Toward Retirement.

Table 6. *Mean Differences between Voluntary Retirees and Forced Retirees*

Factors	Mean Score		t-score	Sig
	Voluntary	Forced		
Leisure Attitudes	4.10	3.86	3.122	.000
Leisure Self-Efficacy	3.98	3.68	3.594	.002
Sense of Coherence	5.36	4.81	4.323	.000
Attitudes Toward Retirement	4.14	3.81	4.424	.000

Table 7. *Comparision between Voluntary Retirees and Forced Retirees*

Variable Effects			Voluntary		Forced		Z-Score
			Estimate	P	Estimate	P	
SOC	<---	LA	.415	.006	.522	.009	0.428
SOC	<---	LSE	.505	.000	.186	.316	-1.419
ATR	<---	SOC	.234	.000	.768	.000	4.169**
ATR	<---	LA	.517	.000	-.015	.757	-3.353**
ATR	<---	LSE	-.027	.716	.172	.181	1.340

Note: LA=Leisure Attitudes; LSE=Leisure Self-Efficacy; SOC=Sense Of Coherence; ATR= Attitudes Toward Retirement.

CHAPTER 5

DISCUSSION

The goals of this study were to examine the roles of leisure (i.e., leisure attitudes and leisure self-efficacy) on attitudes toward retirement (ATR) using sense of coherence theory (SOC) to explore whether retirement decision has an effect on the relationship among the factors and comparing voluntary retirees and forced retirees. Leisure attitudes (LA) and leisure self-efficacy (LSE) were specifically used to assess leisure in this study, since both LA and LSE are the principle determinants of actual leisure engagement and leisure satisfaction (e.g., Brown & Frankel, 1993; Hawkins, Foose & Binkley, 2004; Orsega-Smith et al., 2007). To achieve these goals, a total of 423 respondents were recruited through Survey Sampling International (SSI) and structural equation modeling (SEM) and Independent T-Test were used to analyze the data using AMOS and SPSS software. Through the analyses, the study provided three interesting findings.

First, the results suggest that LA and LSE were vital General Resistance Resources (GRRs) for retirees' SOC. In other words, how retirees think leisure, how they engage in leisure and how they perceive their ability to perform leisure activities were substantial resources for how the respondents' view the situation or world. This result can be better understood in the context of retirees. After retirement, most retirees' work hours shift to free time, and they experience abruptly increased free time compared to pre-retirement. In general, free time has a positive connotation, since it is considered unobligated time and a time to engage in leisure activities to pursue their happiness and pleasure, which could lead to health and well-being in the long run (Wang et al., 2014). However, this also could be a stressful time, if retirees have a negative attitude toward leisure time and are not ready to enjoy more leisure. Hence, how

individuals view leisure and how their beliefs about their capability to be involved in leisure activities could significantly shape how they view their current situation.

In addition, LA and LSE could be important indicators of SOC because of the possible conceptual connections. As for LA, it could be connected with overall aspects of SOC. Both the cognitive and affective components could influence the meaningfulness aspect of SOC, since understanding the benefits of leisure and having a positive feeling about leisure could make retirees think their life is more meaningful and motivate to cope with the transition. In fact, leisure meaning is an important component of leisure education and a goal of leisure education is raise awareness of the meaning and benefits of leisure to motivate people to plan for their leisure (I'll find some citations for you). Moreover, the behavioral component of LA could shape the manageability aspect of SOC. Since the behavioral component assesses the willingness and the actual engagement of leisure, those who have a high score on the behavioral component may also believe they are able to manage their retirement better by participating in leisure activities as they do now. Eventually, positive LA would lead retirees to think their life is more stable and predictable, which increase the comprehensibility of SOC. Again, there are connections between the findings and the goals and outcomes of leisure education.

While LA might have a broader association with SOC, LSE could have a strong, but concentrated effect on the manageability component of SOC. Specifically, since individuals who have high LSE believe they have sufficient skills and abilities to engage in leisure activities, they may feel they have sufficient abilities and resources to cope with the challenges they might confront during retirement transition. Moreover, LSE could be a stronger indicator than LA because it shares a similar mechanism with SOC. McComb (2010), for example, pointed out four similarities between SOC and self-efficacy. First, both SOC and self-efficacy are coping-oriented

constructs in that they examine an ability to deal with challenging situations. Second, although all people possess both constructs, people vary in how they approach and facilitate SOC and self-efficacy. In other words, both constructs contain resource-like characteristics and heavily rely on the active role of the individual to shape the process. Third, SOC and LSE are developed through repeated experience and success and enhance each other through experiences. Fourth, since both constructs are inherent characteristics, it has the advantage to applying universally without concerning cultural influences. Therefore, LSE could have a stronger effect on SOC than LA.

Second, SOC was a prominent determinant of ATR for retirees than LA and LSE. This was aligned with Antonovsky, Sagy, Adler and Visel's (1990) research that SOC was a stronger predictor of ATR than socioeconomic status and expected income loss. They noted that SOC has a negative association with losses from retirement, while it has a positive relationship with the gains from retirement. This could be possible because individuals with strong SOC tended to use cognitive, affective, and instrumental resources and strategies to cope with a challenging situation, which subsequently can contribute to health and well-being (Van der Colff & Rothmann, 2009). Specifically in retirement, individuals with high SOC might assess the situation more rationally and even less challenging that, they would perceive fewer losses in retirement, but have a more positive view of retirement than individuals with low SOC.

Additionally, the findings support the notion of Antonovsky and his colleagues that SOC is a mediator between GRRs and other dependent factors such as life satisfaction, psychological well-being and health (e.g., Antonovsky, 1992; Gana, 2001; Wiesmann & Hannich, 2010). Examining a mediator is meaningful, since it explains how or why this relationship is occurring, while a moderator only able to examine the direction and strength of the relationship (Baron & Kenny, 1986). They asserted that SOC is a superordinate concept and not on the same level as

other variables such as self-esteem or social support, which we called GRRs (Antonovsky, 1992, p.36). In this study, in fact, the effects of LA and LSE were influential on ATR mainly through SOC. The results echoed Gee and Baillie's (1999) findings that an individual who has low leisure skills and has no idea what they want to do with their leisure time would have a negative ATR. One of the possible explanations is the association between LA and LSE and leisure engagement (Brown & Frankel, 1993; Orsega-Smith et al., 2007; Searle & Iso-Ahola, 1988). Due to the positive association, an individual with positive LA and LSE is more likely to engage in leisure activities. Such active leisure engagement is not only a meaningful way to spend the free time for retirees (van der Meer, 2008), but may also enhance their health and well-being and even provide purpose in life (e.g., Eakman, Carlson, & Clark, 2010; Heo, Culp, Yamada & Won, 2013; Freedman, 2006). On the contrary, for respondents who have a negative attitude toward leisure and do not believe they have an ability to perform leisure, retirement could be a time of distress rather than be an enjoyable life stage due to a lack of leisure skills and a negative attitude toward leisure as a whole. Therefore, leisure engagement might lead to the decrease in the negative perceptions of retirement, and strengthen the positive aspects of retirement.

Furthermore, SOC played a partial mediator role between LA and ATR and LSE and ATR as well. In other words, the direct effect of LA and LSE on ATR in the model did not disappear completely after placing SOC between LA and ATR and LSE and ATR. One of the main explanations is that LA and LSE could have some unique contributions to ATR, which SOC might not able to offer. First, since work was a crucial source of identity for many pre-retirees, leaving their main career might be an odd experience and even evoke feelings of loss, guilt and feeling unproductive to retirees and make them not know what to do (Brown et al., 2001; Nimrod & Kleiber, 2007). In this situation, having a positive attitude toward leisure could

help retirees avoid these uncomfortable feelings (e.g., not being productive, sense of detachment) they might have and be more proactive with their retirement (Gibson et al., 2003/2004). In fact, Iso-Ahola (1981) emphasized the importance of leisure attitude and supported the possibility of creating an identity in retirement. Moreover, McPherson and Guppy (1979) noted that respondents who have positive attitudes toward leisure were more likely to plan and consider how they manage retirement. This suggests that LA could have a stronger influence on how retirees view their retirement than LSE and facilitate a more smooth transition into retirement in the long run. Second, since LA and LSE are closely related to the actual leisure involvement, having high LA and LSE could contribute to physical and psychological health in later life by encouraging leisure engagement (e.g., Dupuis & Alzheimer, 2008; Netz, Wu, & Tenenbaum, 2005). In fact, many researchers noted that leisure engagement could increase life satisfaction in retirement (Hawkins et al., 2011), decrease depression (Li & Ferraro, 2005) and even self-esteem (Dattilo et al., 1994). However, since simply encouraging retirees busy without developing leisure attitudes and skills might not be contributed to health and well-being, LA and LSE should be highlighted (Mannell, 2007). Third, active leisure engagement could provide opportunities to develop friendships in retirement (Mannell & Kleiber, 1997; Maynard & Kleiber, 2005). In fact, the social aspect was one of the main motivations for retirees to engage in leisure activities (Beggs, et al., 2014). Plus, several researchers noted that social leisure activities are very effective in health and well-being for retirees in later life (Earl, Gerrans & Halim, 2015; Krahe, 2011). As such, leisure could deliver unique benefits, which could enhance a positive attitude toward retirement, but SOC might not able to do, even though it is a crucial determinant.

Finally, voluntary retirees showed significantly higher scores on all the main factors (i.e., LA, LSE, SOC, and ATR) than forced retirees. In general, voluntary retirees are people who

retired on their own will regardless of the timing of retirement (early, on-time or late retirement). Not surprisingly, previous studies have also shown that voluntary retirees tend to show not only a positive attitude toward retirement, but also adjust well to the retirement transition (e.g., Hershey & Henkens, 2014; Reitzes & Mutran & 2004; Schultz, Morton, & Weckerle, 1998). One of the main reasons for their successful retirement adjustment is that voluntary retirees have a tendency to believe they are ready for retirement and have confidence in their ability to adapt well (e.g., Beehr, 1986; Mutran et al., 1997; Reitzes & Mutran, 2004). In fact, past research indicates that voluntary retirees were more likely to be affluent, healthy and engage in retirement planning programs. This shows that they have more resources to facilitate and cope with the challenges they might confront during the retirement transition, which could explain why voluntary retirees showed higher SOC than forced retirees. Moreover, being prepared for retirement could involve a range of aspects from financial status to health (e.g., Bonsang & Kline, 2012; Rosenkoetter & Garris, 2001). Knowing what to do during retirement, which is closely related to leisure engagement, could be a major factor as well. In fact, leisure was one of the main pull factors on the retirement decision (Beehr, 1986; Schultz, Morton & Weckerle, 1998). In this sense, voluntary retirees in the current study showed significantly more positive LA and high LSE compared to forced retirees. In particular, the substantially higher regression coefficient of LA on ATR showed how important leisure is in retirement. On the contrary, forced retirees only depended on SOC to shape ATR in this study. This indicates that forced retirees may have a lack of leisure resources and depend on other GRRs to form ATR. This is why forced retirees showed a significantly higher regression estimate of SOC toward ATR compared to voluntary retirees. However, this does not mean that forced retirees have higher SOC than voluntary retirees, but

that they rely more on SOC to shape ATR. In sum, voluntary retirees were more actively facilitating LA as a GRR to shape ATR than forced retirees.

Implications

In this study, SOC theory was used to understand the relationships between leisure variables (i.e., LA and LSE) and ATR. SOC assumes that how individuals view their situation or world could determine how well they could cope with challenges they might confront. To date, previous studies have been using three main approaches to understand SOC and its' roles: a) identifying generalized resistance resources (GRRs) (e.g., Wiesmann & Hannich, 2012; Volanen et al., 2004); b) examining the role of SOC in health and quality of life (e.g., Nilsson et al., 2010; Wainwright et al., 2007); and c) assessing the validity of SOC (e.g., Antonovsky, 1993; Eriksson & Lindstrom, 2005). The majority of the studies confirmed the validity of the concept, but also advocated SOC as an effective coping-oriented construct, which could enhance health and quality of life. Moreover, the studies noted that diverse resources (e.g., socioeconomic status, social support, ability to use skills, work status, knowledge, religion) could act as GRRs and enhance SOC.

In addition to the existing findings, this study can provide additional theoretical implications and contributes to the literature as well. First, this study showed that leisure could be an important GRR to strengthen retirees' SOC. As Read et al., (2005) stated, some GRRs could be more meaningful and powerful depending on individual's situations, leisure could be a crucial resource for retirees due to extended free time. Unfortunately, however, it has been overlooked as a meaningful GRR from previous studies. Hence, this study has not only shed new light on leisure components as influential GRRs, it has stimulated interest in examining the roles

of leisure in SOC further. Second, this study applied the SOC framework in a different population and context, which are retirees in retirement who reside in Illinois, USA. To date, SOC has been mostly actively researched on European populations such as Finland, Israel, and Sweden, but neglected on other population including the U.S. population. Moreover, even though retirement is a major life transition, which could cause stress to older adults, very limited studies have been using the SOC framework to understand the transition. Under this circumstance, this study may contribute to expanding the generalizability of SOC theory by applying to different population and context. Third, this study deviated from health and quality of life constructs and examined the association between SOC and ATR, factors that are important in the retirement transition. Further, this study reaffirmed that individuals who have high SOC are more likely to have lessened losses from retirement, but take notice of gains from retirement. Hence, this study contributed to expanding the outcome variables beyond health and well-being and explored the relationships with a different constructs. Lastly, this study confirmed the reliability and validity of the main factors and its' components. The majority of factors and its' components showed acceptable reliability and validity through confirmatory factor analyses. In particular, since LSE instruments are scarce, this study suggested a possibility of modifying Chen et al.'s (2001) "new general self-efficacy" scale to assess LSE. However, the manageability component (.68) of SOC showed slightly low reliability than the .7 of Cronbach's alpha, which, indicates that further studies need to be conducted to check the manageability component more in depth.

Additionally, this study provides meaningful practical implications to practitioners and professionals. Since this study found that LA and LSE are prominent components of retiree's SOC and ATR, this study could encourage practitioners and professionals to develop programs

to promote retirees' LA and LSE such as retirement planning programs or leisure education programs. Until recently, existing retirement planning programs have barely concentrated on promoting leisure engagement including enhancing a positive attitude toward leisure and improving their leisure skills. Instead, existing programs have been emphasizing securing and managing retirees' financial assets. Even though financial planning is a key aspect of retirement planning, leisure could be especially important for retirees since leaving work often results in role loss, reduces a person's sense of purpose and contributes to the loss of social contact with work related friends and colleagues (Kleiber & Linde, 2014; Siegel, 1986; Zhu-Sams, 2004).

Accordingly, retirement planning or leisure education, programs could be designed into two parts. For the first part, practitioners could concentrate on shifting toward or strengthening a positive leisure attitude. In fact, Mobily (1984) asserted that changing an individual attitude toward leisure should be preceded so that they are not only open to leisure engagement, but also more likely to obtain the benefits of leisure engagement. To encourage a positive leisure attitude, practitioners could inform the benefits of leisure engagement and help imagine how leisure engagement could invigorate their retirement. Moreover, practitioners can encourage participants to seek and decide what they want to do for their leisure in retirement. In the second part, on the other hand, practitioners could focus on increasing the participants' leisure self-efficacy. Bandura (2004) suggested that experiencing prior successes on the activity (Mastery experience), watching others being successful on the activity (vicarious experience), hearing encouragement from others (verbal persuasion), and maintaining a positive emotional state (somatic and emotional states) could be important to increase self-efficacy. Hence, practitioners could help participants to build a concrete action plan to reach the goals on their leisure engagement to experience small but meaningful successful experiences. Also, professionals could share the

video clips of other retirees who are successful fulfilling their leisure engagements. Plus, practitioners should keep encouraging participants to prevent from quitting and maintain a positive emotion state. Then, community resources could be used to build on more positive attitudes toward leisure and enhanced leisure self-efficacy. Leisure resources is an important part of leisure education and helps participants take what they learned and find opportunities to pursue leisure activities of interest to them in their community.

Besides, since LA and LSE are closely related to actual leisure engagement (Ragheb & Tate, 1993; Sylvia-Bobiak & Caldwell, 2006), strengthening a positive attitude toward leisure and a belief of capability to perform leisure activities could not only encourage leisure involvement, but also assist to obtain myriad benefits through leisure activities, which contribute to well-being and quality of life (e.g., Dupuis & Alzheimer, 2008; Mannell, 2007; Netz, Wu, & Tenenbaum, 2005). In fact, these planning programs for retirees were associated with improvement in ATR (Taylor-Cater, Cook & Weinberg, 1997) and sense of independence (Searle, Mahon, Iso-Ahola, Sdrolias & Dyck, 1998), and reducing stress (Chang, 2014). Janssen (2004), for example, revealed that participants in a leisure education program rated their perceived quality of life higher than the control group. Furthermore, the benefits of leisure education (i.e. sense of independence and skills learned) tended to be maintained over time (Searle et al., 1998). Therefore, leisure researchers and practitioners should consider developing leisure-focused retirement planning programs and encourage retirees to engage in them to gain benefits from leisure involvement.

Limitations and Future Research

Despite the significant findings, this study has some limitations. Since the sample was recruited from an on-line survey company, it might not be representative of retirees' who do not use the Internet. Moreover, since this study focused on retirees who reside in Illinois, results are not generalizable to other populations. Therefore, it would be interesting to investigate whether different demographic and geographic locations produce different findings. For example, in this study, the majority of the respondents was white and had access to the Internet. However, what if this model is applied to non-white retirees such as Asian or Hispanic or Black? Would the results be different? How would this cultural factor play in the model? Also, what if this model was applied to the people who do not have access to the Internet? These questions would be worth considering and suggest interesting findings.

Second, it would be interesting to include well-being related constructs such as life satisfaction, quality of life and subjective and psychological well-being. Even though ATR is a principal indicator of well-being in the post-retirement period, having a positive attitude toward retirement does not guarantee happiness or quality of life during retirement. In other words, ATR might limit assessing respondents' perception on "retirement" as a life event rather than overall perception of their current later life after retirement. Moreover, although I restricted the respondents to age 75 to prevent the retrospective issue, respondents who retired over 5 years ago might have difficulty recalling their retirement experience. Therefore, including well-being components in the future study could reflect more current situations of the respondents.

Third, this study only used retirement decision as a contextual variable of study to compare between voluntary retirees and forced retirees regarding retirement transition. However, there are other contextual variables, which could affect retirement transition such as gender, chronic conditions, age cohort and the stage of retirement transition. For example, since losing a

spouse is relatively common, but a very stressful life event for older adults, it could be an interesting contextual variable to explore. In fact, although researchers asserted that this life transition could have an influence on actual leisure engagement (e.g., Janke, Nimrod, & Kleiber, 2008a; 2008b), how it impacts leisure involvement of both widows or widowers is inconclusive. For example, while Janke, Nimrod, and Kleiber (2008a) noted that leisure engagement is more likely to reduce during the transition to widowhood, since widows and widowers tended to experience depression and needed some time to recover from the loss and grief, Stahl and Schulz (2014) found that especially widowed men increase their physical activities to cope with the widowhood. This shows that people are utilizing leisure differently to deal with their heartbroken life event. For these reasons, it would be a thought-provoking contextual variable to understand the retirement transition.

Fourth, it is worthwhile to employ longitudinal approaches to understand the role of leisure on the retirement transition. In particular, since retirement is a process rather than a one-time event, cross-sectional studies tend to have limitations presenting the whole picture of the relationships between leisure and retirement. Longitudinal studies, on the other hand, afford a better understanding of change over time and potentially cause and effect (Hedeker & Gibbons, 2006). Hence, it might be a valid approach to understand the complex and dynamic relationship between leisure and health and well-being in the transition to and experience of retirement. Moreover, in addition to the quantitative approach, individual interviews or focus groups could be conducted to get more in-depth insights into the role of leisure on attitudes toward retirement and the extent to which people planned for their retirement.

Conclusion

Today, retirement is a prevalent life transition, but still major one to people in the old adulthood. Even though retirement causes changes in diverse aspects of life, some retirees tend to cope better with the transition than others. Antonovsky (1987) assumes this could be due to sense of coherence (SOC), how individuals make sense of the world. In other words, when individuals believe retirement is predictable and meaningful and have enough resources to manage, they would be able to deal with the transition better. While SOC could be shaped by how individual utilizing their resources, leisure related resources were overlooked by researchers, even though retirement is regarded as the time for leisure. Therefore, this study explored the role of leisure in attitudes toward retirement based on the SOC theory.

This study demonstrated that LA and LSE were vital resources for the retirees to shape SOC and ultimately enhance a positive ATR. Specifically, retirees' attitudes toward leisure and their belief in the capability of engaging leisure activity are improving predictability, manageability, and meaningfulness of retirement and lead to a positive attitude toward retirement in the long run. Despite the significant role of leisure in retirement, not all retirees are involved in leisure activities after retirement and the majority of existing retirement planning programs is largely neglect the leisure component, but focused on family finance. Hence, this study reinforces the important value and necessity of leisure-oriented retirement planning programs to encourage and lead retirees to involve and enjoy leisure activities. In particular, since people have different tastes in leisure involvement, the leisure-oriented retirement planning programs or leisure education should concentrate on nurturing positive attitudes toward overall leisure and developing own leisure repertoires and leisure skills to stimulate involvement.

Furthermore, this study contributed to the literature by introducing a relatively new theory, sense of coherence theory, which might encourage researchers to view the retirement

transition from the diverse perspectives. At the same time, the present findings pave the way for considering leisure attitudes and leisure self-efficacy as crucial GRRs for retirees, which tend to be overlooked by the researchers. Accordingly, this study could play a part in encouraging active research on the role of leisure in retirees beyond the leisure field. Moreover, as this study reconfirmed the relationship between SOC and ATR, it added further support for the theory that individuals with the high sense of coherence could deal with the stressors adequately.

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APPENDIX A: QUESTIONNAIRE

Background

1. What year are you born? (Example: October, 1940)

_____

2. What is your sex?

_____ Male _____ Female

3. Marital status

_____ 1) Never married
_____ 2) Separated or Divorced
_____ 3) Widowed
_____ 4) Living with a partner
_____ 5) Married
_____ 6) Other (specify): _____

4. What is your race or ethnicity? (Check all that apply)

_____ 1) White
_____ 2) Black or African American
_____ 3) Hispanic or Latino
_____ 4) Native American or American Indian
_____ 5) Asian / Pacific islander
_____ 6) Other (please specify):
_____

5. What is the highest level of school you have completed or the highest degree you have received?
(if currently enrolled, highest degree received)

_____ 1) No schooling completed
_____ 2) Nursery school to 8th grade
_____ 3) Some high school
_____ 4) High school graduate
_____ 5) Some college credit
_____ 6) Trade/technical/vocational training
_____ 7) Associate degree
_____ 8) Bachelor's degree
_____ 9) Master's degree
_____ 10) Doctorate degree
_____ 11) Other (please specify): _____

6. Are you retired from your main career?

_____ No _____ Yes

6-1. **If you retired**, please state the month and year you retired?

_____

6-2. I would say my retirement was _____.

_____ Voluntary _____ Forced

7. Current paid employment
_____ 1) I am a homemaker
_____ 2) I am retired, but working part-time because I **need to**
_____ 3) I am retired, but working full-time because I **need to**
_____ 4) I am retired, but working part-time even though **I don't need to**
_____ 5) I am retired, but working full-time even though **I don't need to**
_____ 6) I am not working at all
_____ 7) Other (please specify):_____

8. I am currently living _____?

_____ 1) Alone
_____ 2) With a partner and/or spouse
_____ 3) With other family members
_____ 4) With friend(s)
_____ 5) With (a) roommate(s)
_____ 6) Other (please specify):

9. I am currently living in _____?

_____ 1) My own house/condo/apartment
_____ 2) Family's home
_____ 3) A retirement village/community
_____ 4) An assisted living facility
_____ 5) Other (please specify): _____

10. In general, how do you perceive your health?
_____ 1) Very Poor
_____ 2) Poor
_____ 3) Fair
_____ 4) Good
_____ 5) Very Good

11. Compared to pre-retirement, how would rate your health in general now?
_____ 1) Much worse than before retirement
_____ 2) Somewhat worse now than before retirement
_____ 3) About the same
_____ 4) Somewhat better now than before retirement
_____ 5) Much better now than before retirement

Questions about Feelings Toward Leisure

(1~18) In general, ***LEISURE*** *is defined as time or activity you* **DECIDED VOLUNTARILY** ***with your*** **OWN WILL** ***and*** **FEEL ENJOYMENT.** *Please circle one number for each statement*

	Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree
1. Engaging in leisure activities is a wise use of time.	1	2	3	4	5
2. Leisure activities are beneficial to individuals and society.	1	2	3	4	5
3. Leisure activities contribute to one's health	1	2	3	4	5
4. Leisure activities increase one's happiness.	1	2	3	4	5
5. Leisure activities help to renew one's energy.	1	2	3	4	5
6. Leisure activities help individuals to relax.	1	2	3	4	5
7. My leisure activities give me pleasure.	1	2	3	4	5
8. I feel that leisure is good for me.	1	2	3	4	5
9. I like to take my time while I am engaged in leisure activities.	1	2	3	4	5
10. My leisure activities are refreshing.	1	2	3	4	5
11. I feel that the time I spend on leisure is not wasted.	1	2	3	4	5
12. I like my leisure activities	1	2	3	4	5
13. I spend considerable time and effort to be more competent in my leisure activities.	1	2	3	4	5
14. I would attend a seminar or a class to be able to do leisure activities better	1	2	3	4	5
15. I support the idea of increasing my free time to engage in leisure activities.	1	2	3	4	5
16. I engage in leisure activities even when I am busy	1	2	3	4	5
17. I would spend time in education and preparation for leisure activities.	1	2	3	4	5
18. I give my leisure high priority among other activities.	1	2	3	4	5

Questions about Feelings Toward Leisure

(1~8) **CONSIDERING YOUR LEISURE ENGAGEMENT**, *to what extent do you agree or disagree with the following statements?*

	Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree
1. I will be able to achieve most of the goals that I have set for myself.	1	2	3	4	5
2. I am certain that I will accomplish them when facing difficult tasks.	1	2	3	4	*5*
3. I think that I can obtain outcomes that are important to me.	1	2	3	4	*5*
4. I believe I can be succeeded at most any endeavor to which I set my mind.	1	2	3	4	*5*
5. I will be able to successfully overcome many challenges.	1	2	3	4	*5*
6. I am confident that I can perform effectively on many different tasks.	1	2	3	4	*5*
7. I can do most tasks very well compared to other people.	1	2	3	4	*5*
8. I can perform quite well even when things are tough.	1	2	3	4	*5*

Questions about Your Life

(1~13) **CONSIDERING YOUR OVERALL EXPERIENCES IN RETIREMENT,** *please answer the following statements by circling one number for each question.*

1. Do you have the feeling that you really don't care about what is going on around you?

1	2	3	4	5	6	7
Very seldom						Very often

2. Has it happened in the past that you were surprised by the behavior of people whom you thought you knew well?

1	2	3	4	5	6	7
Never happened						Always happened

3. Has it happened that people whom you counted on disappointed you?

1	2	3	4	5	6	7
Never happened						Always happened

4. Until now your life has had:

1	2	3	4	5	6	7
No clear goals or purpose at all						Very clear goals and purpose

5. Do you have the feeling that you are being treated unfairly?

1	2	3	4	5	6	7
Very often						Very seldom

6. Do you have the feeling that you are in an unfamiliar situation and don't know what to do?

1	2	3	4	5	6	7
Very often						Very seldom

7. Doing the things I do every day is:

1	2	3	4	5	6	7
A source of pain and boredom						A source of deep pleasure and satisfaction

8. Do you have very mixed-up feelings and ideas?

1	2	3	4	5	6	7
Very often						Very seldom

9. Do you often experience the feelings that you would rather not have to endure?						
1	2	3	4	5	6	7
Very often						Very seldom
10. Many people -even though with a strong character- sometimes feel like losers in certain situations. Have you felt this way frequently?						
1	2	3	4	5	6	7
Very seldom						Very often
11. When certain events occurred, you generally found yourself:						
1	2	3	4	5	6	7
Overestimated or underestimated its importance						Saw things in the right proportion
12. Do you often feel that there is little meaning in the things you do in your daily life?						
1	2	3	4	5	6	7
Very often						Very seldom
13. Do you often feel that you are not sure you can control?						
1	2	3	4	5	6	7
Very often						Very seldom

Questions on Attitudes Toward Retirement

(1~20) **CONSIDERING YOUR OVERALL EXPERIENCES IN RETIREMENT**, *to what extent do you agree or disagree with the following statements?*

	Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree
1. Retirement gives more leisure time to do what I want.	1	2	3	4	5
2. Retirement means that I feel that I am getting old.	1	2	3	4	5
3. When I retire it gives me the luxury of not living according to a schedule determined by work.	1	2	3	4	5
4. As long as I am working and not retired, it gives me a good reason to stay healthy.	1	2	3	4	5
5. Retirement means being free to do what I want to do, not what someone else decides I have to do.	1	2	3	4	5
6. Retirement means that time drags on.	1	2	3	4	5
7. After a lifetime of work, I should be entitled to some years of leisure. (i.e., free time to pursue activities I enjoy)	1	2	3	4	5
8. Retirement means being more isolated from people.	1	2	3	4	5
9. Retirement gives people a chance to reestablish relations with old friends and meet new people.	1	2	3	4	5
10. Retirement means being bored.	1	2	3	4	5

	Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree
11. Retirement strengthens personal relations, especially between my spouse/partner and me	1	2	3	4	5
12. When I retire, it's harder to say just who I am.	1	2	3	4	5
13. It's worthwhile retiring, because it means the end of all that is irksome about work.	1	2	3	4	5
14. Retirement means more friction between me and other family members.	1	2	3	4	5
15. In the first few years after retirement, my health may improve and/or did improve.	1	2	3	4	5
16. Retirement means that I am no longer contributing to society.	1	2	3	4	5
17. It's good to retire because I am freed from everything bad about my job.	1	2	3	4	5
18. Life after retirement is not very useful.	1	2	3	4	5
19. Retirement is part of a broader pattern of withdrawing from lots of other activities.	1	2	3	4	5
20. Retirement means being lonely.	1	2	3	4	5

Thank you very much for completing this survey! Your feedback is appreciated.

APPENDIX B: RESEARCH QUESTIONS AND HYPOTHESES

Research Questions	Hypotheses	Measurements
RQ1: Do leisure variables shape attitudes toward retirement?	H1: Leisure attitudes have a positive association with attitudes toward retirement.	- Leisure Attitude Scale-Short Version - Attitudes Toward Retirement Scale
	H2: Leisure self-efficacy has a positive association with attitude towards retirement.	- New General Self-efficacy Scale - Attitude Towards Retirement Scale
RQ2: Do leisure variables shape sense of coherence?	H3: Leisure attitudes have a positive association with sense of coherence.	- Sense of Coherence 13-item Scale - Leisure Attitude Scale-Short Version
	H4: Leisure self-efficacy has a positive association with sense of coherence.	- Sense of Coherence 13-item Scale - New General Self-efficacy Scale
RQ 3: Does sense of coherence serve as a mediator between leisure variables and attitudes toward retirement?	H5: Sense of coherence has a positive association with attitudes toward retirement controlling the effect of leisure attitudes and leisure self-efficacy.	- Sense of Coherence 13-item Scale - Attitudes Toward Retirement Scale - Leisure Attitude Scale-Short Version - New General Self-efficacy Scale
	H6: The impact of leisure attitudes on attitudes toward retirement is less after controlling the effect of sense of coherence.	- Leisure Attitude Scale-Short Version - Attitudes Toward Retirement Scale - Sense of Coherence 13-item Scale
	H7: The impact of leisure self-efficacy on attitudes toward retirement is less after controlling the effect of sense of coherence.	- New General Self-efficacy Scale - Attitudes Toward Retirement Scale - Sense of Coherence 13-item Scale
RQ 4: Does the retirement decision (voluntary or involuntary) influence the retirement transition?	H8: Voluntary retirees score higher on LA, LSE, SOC, and ATR than forced retirees.	- Retirement Decision - Leisure Attitude Scale-Short Version - New General Self-efficacy Scale - Sense of Coherence 13-item Scale - Attitudes Toward Retirement Scale
	H9: Voluntary retirees more actively utilize LA, LSE, and SOC than forced retirees.	- Retirement Decision - Leisure Attitude Scale-Short Version - New General Self-efficacy Scale - Sense of Coherence 13-item Scale - Attitudes Toward Retirement Scale

APPENDIX C: SUMMARY OF MEASUREMENTS

Variable	Subdomain	Question	Operationalization	Score
Leisure Attitudes	- Cognitive - Affective - Behavioral	Selected Items (among 18 questions): - Engaging in leisure activities is a wise use of time. - My leisure activities give me pleasure. - I spend considerable time and effort to be more competent in my leisure activities.	5-point Likert Scale: 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	Used the mean score and higher score indicates positive attitudes toward leisure.
Leisure Self-Efficacy		Selected Items (among 8 questions) - When it comes to leisure, I will be able to achieve most of the goals that I have set for myself. - When it comes to leisure, I am confident that I can perform effectively on many different tasks	5-point Likert Scale: 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	Used the mean score and higher score indicates higher leisure self-efficacy.
Sense of Coherence	- Comprehensibility - Manageability - Meaningfulness	Selected items (among 13 questions) - Do you have the feeling that you don't really care about what goes on around you? - Has it happened in the past that you were surprised by the behavior of people whom you thought you knew well? - Has it happened that people whom you counted on disappointed you?	7-point Likert scale: 1 = Never 2 = Very Seldom 3 = Seldom 4 = Half of time 5 = Occasionally 6 = Frequently 7 = Very Frequently	Used the mean score and higher score indicates higher sense of coherence (5-itmes were reverse coded).
Attitudes Toward Retirement	- Gains from Retirement - Losses from Retirement	Selected items (among 20 questions) - Retirement gives more leisure time to do what I want. - When I retire it gives me the luxury of not living according to a schedule determined by work.	5-point Likert Scale: 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	Used the mean score and higher score indicates positive attitudes toward retirement (11-items were reverse coded).
Retirement Decision		- Do you perceive your retirement voluntary or involuntary?	Categorical variable 1 = Forced 2 = Voluntary	

APPENDIX D: INSTRUMENT USAGE APPROVAL

UNIVERSITY WEST
Center on Salutogenesis
Department of Nursing, Health and Culture

Date 2015-04-06

Doctoral Candidate Chungsup Lee
University of Illinois at Urbana-Champaign
USA
(lee782@illinois.edu)

Dear Chung Sup Lee,

I hereby grant permission to use the 13-item version of the Sense of Coherence (Orientation to Life) Questionnaire, originally found in *Unraveling the mystery of health: How people manage stress and stay well*, by Aaron Antonovsky (Jossey-Bass Publishers, 1987), for use in your study to explore the role of leisure attitudes and self-efficacy on Sense of Coherence, Attitudes Toward Retirement and Psychological well-being among Retirees.

The permission is granted upon fulfillment of the following conditions:

1. You may not redistribute the questionnaire (in print or electronic form) except for your own professional or academic purposes and you may not charge money for its use. **If administered online, measures should be taken to insure that (a) access to the questionnaire be given only to participants by means of a password or a different form of limited access, (b) the questionnaire should not be downloadable, and (c) access to the questionnaire should be time-limited for the period of data collection, after which it should be taken off the server. Distributing the questionnaire to respondents via email is *not* permitted. Finally, any electronic version of the questionnaire which you may have for your research purposes (other than distribution to research participants) should be in PDF format including password protection for printing and editing**
2. The questionnaire is intended for research purposes only, and may *not* be used for diagnostic or clinical use. By "diagnostic or clinical" it is meant that the SOC score cannot be the basis of any kind of physical, mental, cognitive, social or emotional diagnosis or assessment of the respondent, and cannot direct therapeutic or medical decisions of any kind.
3. In any publication in which the questionnaire is reprinted, reference to the abovementioned source should be given, and a footnote should be added saying that the questionnaire is reprinted with the permission of the copyright holder.
4. The copyright of the Sense of Family Coherence Questionnaire remains solely in the hands of the Executor of the Estate of Aaron Antonovsky.

If possible, I would appreciate receiving a copy of any forthcoming paper concerning a study in which the SOC questionnaire has been used, for private use in building an SOC publication database.

Sincerely,

Avishai Antonovsky, Ph.D.
Estate of Aaron Antonovsky
Department of Education and Psychology
The Open University
Israel

On behalf of Avishai Antonovsky
Monica Eriksson, PhD, Associate Professor
Department of Nursing, Health & Culture
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APPENDIX E: INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research

Office for the Protection of Research Subjects
528 East Green Street
Suite 203
Champaign, IL 61820

November 13, 2015

Laura Payne
Recreation Sport and Tourism
104 Huff Hall
1206 S Fourth St

RE: *The role of leisure attitudes and self-efficacy on sense of coherence and attitudes toward retirement among retirees*
IRB Protocol Number: 16337

EXPIRATION DATE: 11/12/2018

Dear Dr. Payne:

Thank you for submitting the completed IRB application form for your project entitled *The role of leisure attitudes and self-efficacy on sense of coherence and attitudes toward retirement among retirees*. Your project was assigned Institutional Review Board (IRB) Protocol Number 16337 and reviewed. It has been determined that the research activities described in this application meet the criteria for exemption at 45CFR46.101(b)(2).

This determination of exemption only applies to the research study as submitted. Please note that additional modifications to your project need to be submitted to the IRB for review and exemption determination or approval before the modifications are initiated.

We appreciate your conscientious adherence to the requirements of human subjects research. If you have any questions about the IRB process, or if you need assistance at any time, please feel free to contact me at the OPRS office, or visit our website at http://oprs.research.illinois.edu.

Sincerely,

Rebecca Van Tine

Rebecca Van Tine, MS
Human Subjects Research Specialist, Office for the Protection of Research Subjects

c: Chung Sup Lee