

Career Interests and Volunteerism:  
Factors Related to Satisfaction and Commitment  
Among Late-Midlife and Older Volunteers

by

Maureen Kim Keaveny

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Graduate Supervisory Committee:

Sharon Robinson Kurpius, Chair  
Terence Tracey  
Richard Kinnier

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## ABSTRACT

Problems with recruiting and retaining older volunteers have resulted in less than one-quarter of older adults participating in volunteer activities (BLS, 2016). Much emphasis on volunteer motivations have been placed to enhance volunteer engagement among late-midlife and older adults (e.g., Davis et al., 2003). Although career motivations have not been shown to predict late-midlife and older adults' volunteer participation (Planalp & Trost, 2009), there is some empirical evidence supporting the relevance of career domains in later life (Greller, 2006). By reframing volunteering as a compensatory strategy, the purpose of the current study was to evaluate factors, including career-related interests, that affect volunteer satisfaction and commitment among late-midlife and older volunteers.

A series of hypotheses were posited to examine contributions to volunteer satisfaction and to future volunteer commitment, including volunteer motivation and congruence between career interests of volunteers and characteristics of the volunteer activities (volunteer-activity congruence). The online survey contained measures for study variables, including the Volunteer Functional Inventory (volunteer motivations) and Personal Globe Inventory (career interests). Participants ( $N = 167$ ) were recruited from community and government volunteer programs with the average age of volunteers being 68.65 years old ( $SD = 9.36$ ; range 50 to 90 years). The majority of volunteers were female (54.5%), White or Caucasian (90.4%), married (58.2%), reported some college experience (96.5%) and were retired (68.9%).

Results from the current study indicated that time volunteering, volunteer motivations, and volunteer-activity congruence did not significantly predict volunteer

satisfaction, accounting for 9.2% of the variance. In contrast, the final model did significantly predict volunteer commitment and accounted for 13.1% of the model variance, with altruistic values remaining a significant contributor to volunteer commitment. Findings from the current study highlight inconsistencies noted in previous research regarding volunteer motivations, satisfaction, and commitment. Possible generational influences on altruistic values and volunteerism were also noted. Although volunteer-activity congruence alone was not predictive of volunteer satisfaction or of commitment, results from the study warrant additional investigations in career interests and volunteering among late-midlife and older adults. Limitations of the current study and implications for volunteer recruitment and retention were also discussed.

## DEDICATION

To my mother, Chong Cho, for her strident belief in learning and growth, for her love and support in this endeavor, and for the example she sets as a strong and accomplished woman.

To my family who ground me in love, support, and joy.

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## CHAPTER 1

### PROBLEM IN PERSPECTIVE

Americans are experiencing unprecedented longevity. The nearly 10,000 baby boomers that reach the age of 65 daily are likely to experience an extended life expectancy of more than 20 years (Administration on Aging [AoA], 2015; Cohn & Taylor, 2010; Federal Interagency Forum on Aging Related Statistics [FIFARS], 2016). As a result, the 46.2 million older adults will more than double by 2060, equal to nearly one-quarter of their population (AoA, 2015; Colby & Ortman, 2015; FIFARS, 2016). The increased longevity also raises risks for problems with physical health, adaptive functioning, cognitive functioning, and psychosocial well-being (AoA, 2016; FIFARS, 2016). Recognizing the exponential costs of an infirm and dependent aging population, calls for public and private action at national, state, and local levels have been made to identify programs and interventions ensuring for all older adults “the opportunity to live with dignity and participate fully in life” (White House Conference on Aging [WHCOA], 2015, p. 3.)

Attempts to identify effective strategies in staving off the declines associated with longevity have focused on productive activities, such as paid employment and volunteering, in promoting physical and psychosocial well-being (Hong, Hasche, & Bowland, 2009; Rowe & Kahn, 1998; WHCOA, 2015). Volunteering has been noted to promote the physical and psychosocial benefits that are the byproduct of productive engagement while benefiting the society as a whole (Burr, Caro, & Moorhead, 2002). Moreover, older volunteers have been suggested as an untapped resource to fill the gap in the volunteer force due to recent declines in volunteer participation among all age groups

(Corporation for National & Community Service [CNCS], 2015; Tang, 2010; Urban Institute, 2004). Yet, less than one-quarter (23.5%) of those aged 65 and older actually volunteer (Bureau of Labor Statistics, 2016) and nearly one-third of older adults discontinue their volunteering each year (Williams, 2012; Butrica, Johnson, & Zedlewski, 2007), making recruitment of older volunteers less appealing for organizations due to their high turnover rates (Foster-Bey, Grimm, & Dietz, 2007; Manetti, Belluci, Como, & Bagnoli, 2015). This tension between the benefits of having an available volunteer force in older adults and the problems retaining older volunteers warrants a better understanding of what contributes to older adults' commitment to volunteering in the future.

Two approaches have been taken to explore older volunteer engagement. The first approach has been to identify the benefits for older volunteers. Cross-sectional and longitudinal studies have demonstrated how volunteering improves physical, functional, and cognitive health, (e.g., Burr, Tavares, & Mutchler, 2011; Carlson et al., 2008; Li & Ferraro, 2006; Lum & Lightfoot, 2005; Morrow-Howell, Hong & Tang, 2009, Van Willigen, 2000), as well as improvements to psycho-social well-being (e.g., Fingerman, Hay, & Birditt, 2004; Kerschner & Rousseau, 2008; Misener, K., Doherty, A., & Hamm-Kerwin, S., 2010). In addition to the benefits for older adults, a second body of literature has examined sociodemographic characteristics (e.g., Butrica, Johnson, & Zedlewski, 2009; Foster-Bey, Grimm, & Dietz, 2007; Tang et al., 2010) and underlying motivations (e.g., Clary et al., 1998; Okun, Barr, & Herzog, 1998; Stukas, Worth, Clary, & Snyder, 2009) that lead to volunteering in late life. In addition, explorations of these characteristics and motivations have noted some relations with volunteer satisfaction and

commitment to volunteering in the future (e.g., Bang, Ross, & Reio, 2012; Chacón, Vecina, & Dávila, 2007; Omoto, Snyder & Hackett, 2010).

While there is greater understanding of volunteerism among older adults, models of volunteering often fail to account for age-related changes that occur in later life. One common finding among volunteer literature is the absence of relations between career related motivations and volunteer behavior for late-midlife and older volunteers (Houle, Sagarin, & Kaplan, 2004; Van Vianen, Nijstad, & Voskuijl, 2008). Expanding the framework of volunteering by applying the motivational theory of lifespan development and knowledge from career development theory, a better understanding of the role of career-related interests and other factors contributing to volunteering for late midlife and older adults may be possible. The purpose of the current study was to build on existing knowledge regarding the relations between motivation and volunteer behaviors and to explore how career-related interests contributes to volunteer satisfaction and commitment among late mid-life and older adults.

## CHAPTER 2

### LITERATURE REVIEW

#### **The Context of Volunteering**

**History of volunteering.** The concept of a ‘volunteer’ has been used to characterize a variety of behaviors and persons throughout history. Based on a Hebrew term that means “to willingly give” (Cnaan, Handy, & Wadsworth, 1996, p. 366), the use of the term ‘volunteer’ first referred to civilians who were mobilized into military service for emergencies during the 18<sup>th</sup> century (Karl, 1984). Volunteerism, however, has evolved to include a wide variety of tasks designed to assist others with little to no benefit for oneself (Perry, 2004). Yet volunteering can take on a variety of forms that all fall under the umbrella of what is considered volunteering (Cnaan et al., 1996).

Considered a nation founded on civic engagement, the formation of the United States relied heavily on its citizens participating in communal volunteer activities, such as barn raising, quilting parties, or participating in a voluntary militia (Ellis & Campbell, 2012; Perry, 2004; Tang, 2010; Thoit & Hewitt, 2001). The first formal coordination of volunteering efforts in the U.S. began with Benjamin Franklin’s organization of the first volunteer fire brigade, the Union Fire Company, in 1736 (Markley, 2012). Volunteerism has since become woven into the fabric of America through government programs, religious organizations, and non-profit institutions (Ellis & Campbell, 2012; Perry, 2004).

The 20th century, however, was a time of increasing U.S. government programs aimed at organizing and advancing opportunities for volunteers. President Franklin Roosevelt established the Civilian Conservation Corps (CCC) in part to address high unemployment subsequent to the Depression but also to address conservation needs in

rural regions across the country (Perry, 2004). In the 1960's, greater concerted efforts by the federal government were made to promote volunteerism, particularly for older volunteers. Although often overshadowed by their international counterpart, the Peace Corps, the Retired and Senior Volunteer Program (RSVP), the Foster Grandparent Program, and the Senior Companion Program were developed in the 1960's to create opportunities for older citizens to engage in productive activities outside of the workforce (McCarron, 2010). The Domestic Volunteer Service Act of 1973 brought these three programs under the umbrella of Senior Corps and expanded the mission to roll out the programs nationwide (Corporation for National Community Service [CNCS], 2016). Recognition of the contribution of independent, nonpartisan, nonprofit organizations followed President George H. W. Bush's 1989 inaugural speech calling for "thousand points of lights" with the establishment of the Points of Light Foundation in 1990 to support non-governmental civic service (Bush, 1989; Points of Light, 2016). Further expansion of government civic programs with AmeriCorps in 1992 and the Social Innovation Fund in 2010 continued to demonstrate the commitment to promote national civic service as a valuable component of American Society (CNCS, 2016; McCarren, 2010).

**Benefits to the community.** These efforts to promote volunteerism stemmed from the tremendous benefits volunteers provide to the greater society. The financial benefits of an engaged volunteer work force have been estimated to reach nearly \$184 billion dollars of unpaid labor annually (Independent Sector, 2016). While, federal programs, such as AmeriCorps or Senior Corps, provide stipends and scholarships as incentives to engage in formal volunteer activities, they have also been noted to generate

an estimated \$1.2 billion worth of services (Carson, 1999; CNCS, 2016). Senior Corps alone accounts for a total of 270,000 older volunteers annually, who accrued more than 73 million hours of service for nearly 1.5 million children, elderly, and veterans in need (CNCS, 2015). Programs like Senior Corps also highlight the nontangible benefits, such as mentorship for youth and companionship for the elderly, that older volunteers provide (Johnson & Schaner, 2005; Rozario, 2006; Zedlewski & Schaner, 2006).

Non-profit, private organizations also recognize the value volunteers contribute as additional human capital in helping to deliver services. The Volunteer Management Capacity Study, conducted by the Urban Institute in 2003, sampled nearly 3,000 charitable organizations about their experiences with volunteers (Brudney & Hager, 2004). Nearly all organizations surveyed noted that volunteers increased the quality of their services (97%) and improved community relations (96%). They also noted that having volunteers allowed the organization to provide more detailed attention to the people they served (94%), helped the organization reach service levels that could otherwise not be provided (91%), and resulted in overall cost savings to the organization (93%). From early colonial times to the present, the American volunteer has been a critical asset to the community.

**Benefits for the Volunteer.** In addition to the contributions to the greater community, volunteering has also been demonstrated to benefit the late mid-life and older volunteer. As more Americans live past age 65, they are at greater risk for physical health problems, functional decline, cognitive difficulties, and difficulties with psycho-social well-being (Bardenheier, Gregg, Zhou, Cheng, & Geiss, 2014; Chapman, Perry, & Strine, 2005; FIFARS, 2016; Blackwell, Lucas, & Clarke, 2014). More than



half of older Americans experience at least one-chronic health problem and more than 26 percent of older adults reported experiencing multiple chronic health diseases (FIFAR, 2016; Blackwell et al., 2014). In addition, older adults are facing greater limitations in their adaptive functioning with approximately 22 percent of older adults reported having some disability, including problems with vision, hearing, mobility, communication, cognition, or self-care (Bardenheier et al., 2104; FIFAR, 2016). Although approximately 10 percent of those aged 65 and older are diagnosed with cognitive problems, the risk of developing dementia increases five-fold for men and ten-fold for women among the oldest-old (aged 85 and above; FIFARS, 2016). Although older adults experience relatively low rates of mental health difficulties (between 8 and 19%; FIFARS, 2016), depression and other mental health conditions exacerbate existing problems with physical, cognitive, and social functioning, as well as interfere with treatment adherence and outcomes of chronic health conditions (Chapman et al., 2005). Despite this ominous portrait of longevity, engaging in new activities, maintaining social connections, and pursuing productive activities, such as volunteering, in later years serve to buffer against the declines associated with aging (Baltes & Smith, 2003; Rowe & Kahn, 1998).

***Health benefits of volunteering.*** Late-midlife and older volunteers tend to be healthier than those who do not volunteer. Older volunteers are less likely to experience chronic health conditions, such as heart disease and hypertension (Burr et al., 2011), hip fractures (Warburton & Peel, 2008), and chronic pain (Arnstein, Vidal, Wells-Federman, Morgan, & Caudill, 2002). Moreover, late-midlife and older volunteers engage in more positive health-related behaviors, such as increased physical activities (Barron et al., 2009; Fried et al., 2004) and reduced tobacco and alcohol use (Burr et al., 2011). As a

result, older volunteers tend to view their health more positively than do their non-volunteering counterparts (e.g., Lum & Lightfoot, 2005; Luoh & Herzog, 2002; Misener et al., 2010; Morrow-Howell et al., 2009; Shmotkin, Blumstein, & Modan, 2003; Tang, 2009; Thoits & Hewitt; 2001; Van Willigen, 2000).

Not only has volunteering been associated with improved health functioning, research indicates that older volunteers experience reduced mortality compared to non-volunteers (Musick, Herzog, & House, 1999; Okun, August, Rook, & Newsom, 2010; Oman, Thoresen, & McMahon, 1999; Poulin, 2014; Shmotkin et al., 2003). For example, review of the data from Americans' Changing Lives (ACL), a longitudinal data set of a multistage stratified area probability sample of adults aged 25 and older, indicated a significant reduction in mortality risk among those who volunteered compared to those who did not (Musick et al., 1999). After accounting for demographic and health factors, those who did not volunteer in the past were twice as likely to have died within the next seven years compared to those who did volunteer. Okun and colleagues (2010) found similar results in a longitudinal study of 916 older adults between the ages of 65 and 91 years. Individuals who did little to no volunteering within the past six-months were 2.5 times more likely to have died six years later. Oman, Thoresen, and McMahon (1999) found a 26 percent reduction in mortality rates for those who volunteered for at least one organization but a 50 percent reduction among those who volunteered for two or more organizations. As a key indicator of physical well-being, the reduction in mortality risks among older volunteers denotes the health benefits late mid-life and older volunteers experience compared to their non-volunteering counterparts.

***Functional health benefits.*** While older adults who have fewer reported functional limitations tend to volunteer at higher rates, engaging in volunteer activities has been found to buffer against further loss in adaptive functioning (Hong & Morrow-Howell, 2010; Li & Ferraro, 2006; Lum & Lightfoot, 2005; Menec, 2003; Morrow-Howell, Hinterlong, Rozario, & Tang, 2003; Tang, 2009). Benefits to adaptive functioning occurs once older volunteers meet a minimum threshold in time they volunteer, but similar benefits are not seen among those who volunteer below this amount of time. The 100-hours of volunteering annually threshold appears to be significant in protecting against functional decline (Luoh & Herzog, 2002), with participants who engaged in at least 100 hours of volunteer activities per year being less likely to experience functional limitations than did those who engaged in less than 100 hours. Furthermore, these gains were sustained in the long-term, where those who engaged in at least 100 hours of volunteering activities retained similar levels of functioning after 15 years (Lum & Lightfoot, 2005). In some cases, the positive effect of volunteering on functional limitations had a delayed effect in that the buffering effect did not occur immediately but was noted several years after volunteering (Li & Ferraro, 2006), suggesting that volunteering earlier in midlife may be a critical component in assisting older adults in their maintenance of daily functioning abilities in later life.

***Cognitive health benefits.*** Volunteering has also been noted to buffer cognitive functioning declines (Barron et al., 2009; Fried et al., 2004). Utilization of different domains of cognitive functioning and mental flexibility and coordination skills through participation in multiple volunteering roles resulted in older volunteers experiencing greater improvement in memory and executive functioning than did their non-

volunteering counterparts after one year (Carlson et al., 2008). Not only was volunteer participation effective in preventing cognitive decline among those who demonstrated some cognitive impairment at baseline, older volunteers with impairment demonstrated nearly 50 percent improvement in memory and executive functioning at follow-up. Individuals from the control sample experienced further decline in cognitive functioning. In addition to these gains in cognitive functioning, volunteering was noted to have an impact on brain activity in the frontal lobe, demonstrating the effectiveness of volunteering in promoting neuroplasticity among older adults (Carlson et al., 2009).

***Reduction in depressive symptoms.*** Another benefit of volunteering includes its role in delaying or improving depression symptoms (e.g., Fonda & Herzog, 2001; Kim & Pai, 2010; Krause, Herzog, & Baker, 1992; Li, 2007; Li & Ferraro, 2006; Lum & Lightfoot, 2005; Morrow-Howell et al., 2003; Musick & Wilson, 2003; Thoits & Hewitt, 2001). Volunteer activities are noted both to reduce depressive symptomology and to limit the risk of developing depression in the future. While some findings suggest volunteering may have greater protective effects against depression for older women than for older men (Choi & Bohman, 2007), volunteering has been noted to be as effective in buffering against late life depression as was engaging in paid work (McMunn, Nazroo, Wahrendorf, Breeze, & Zaninotto, 2009). Moreover, earlier participation in volunteering activities is more effective in preventing the development of depressive symptoms in later years (Hao, 2008; Li & Ferraro, 2005). Productive activities, such as volunteering, are also useful in preventing depressive symptoms among older adults who experience other functional health problems (McDonnall, 2011). Among productive activities, including paid employment, providing informal help, and participating in volunteer work,

McDonnall (2011) found that volunteering alone moderated the relationship between the development of dual sensory loss (vision and hearing) and depressive symptoms. Late midlife and older adults who volunteered experienced fewer depressive symptoms and were less likely to develop depression in the future than did those who did not participate in volunteer activities.

***Benefits in social engagement.*** Decline in mood is often associated with loss in social support experienced by older adults as their extended social network grows smaller with age (e.g., Bury & Holme, 1990; Fingerman et al., 2004; McAuley, Elavsky, Jerome, Konopack, & Marquez, 2005; Orte, March, & Vives, 2007; Winningham & Pike, 2007; Zettel & Rook, 2004). Fewer available opportunities to receive regular social support due to retirement, loss of spouses and friends in old age, and physical and functional health declines lead to older adults receiving less social support than do their younger counterparts (Fingerman et al., 2004). Volunteering, however, provides opportunities to develop and enhance social networks for older adults (Arnstein et al., 2002; Acquino, Russell, Cutrona, & Altmaier, 1996; Hong & Morrow-Howell, 2010; Kerschner & Rousseau, 2008; Misener et al., 2010; Morrow-Howell et al., 2009; Morrow-Howell et al., 1999; Narushima, 2005; Piercy, Cheek, & Teemant, 2011; Shmotkin et al., 2003). For example, among older volunteer drivers, Kerschner and Rousseau (2008) report that socializing with passengers and making new acquaintances were important contributors to having a satisfying volunteer experience. In addition to appreciating the social support from fellow volunteers, Misener and colleagues (2010) noted that volunteers also felt supported by the organization, further building feelings of social integration and volunteer satisfaction. Volunteering creates opportunities for older adults to make new

friends and to engage in regular social activities (Prouteau & Wolff, 2007). Not only does volunteering compensate for loss in social opportunities, volunteer activities become the venue for older adults to create new social connections and to expand their social support resources.

***Benefits in overall psychological well-being.*** In addition to improvements with depressive symptomology and social functioning, volunteering was also associated with an overall benefit to well-being (Aquino et al., 1996; Borgonovi, 2008; Choi & Kim, 2011; Greenfield & Marks, 2004; Harlow & Cantor, 1996; Okun, Rios, Crawford, & Levy, 2011; Windsor, Ansley, & Rodgers, 2008; Tang, 2009; Thoit & Hewitt, 2001; Van Willigen 2000) as well as greater happiness and positive affect. For example, from the Social Capital Community Benchmark Survey (SCCBS), Borgonovi's (2008) findings showed a positive relation between volunteering and happiness but also a cumulative benefit of increased happiness the more time volunteered. Using data from a subsample of the National Survey of Midlife Development in the U.S. (MIDUS) study, Greenfield and Marks (2004) also found that volunteering was predictive of improved positive affect. Furthermore, civic engagement, such as volunteer activities, was more likely to lead to life satisfaction than was employment (Harlow & Cantor, 1996). Volunteering was associated with greater psychological well-being and life satisfaction. Moreover, volunteerism among older adults can help to mitigate the declines in psychosocial well-being that often comes with increasing age.

**Problems with Recruitment and Retention.** Despite the clear benefits of volunteering and concerted efforts to foster volunteerism, there has been a declining trend in the number of individuals who volunteer through civic, political, professional, and

international organizations (CNCS, 2006). Volunteer engagement peaked in the mid-1980's then has seen a steady drop, with approximately 25 percent of those 16 years and older volunteering in 2015 (BLS, 2016). While volunteer participation increases as one reaches midlife (28.9%), the rate of volunteerism begins to decline in late-midlife (25.1%) with older adults participating at the lowest rate (23.5%). Despite this trend, late-midlife and older adults often make the most ideal volunteers for organizations as they need individuals with the necessary skills or expertise that come from a lifetime of experience and volunteers available to work during the day (Brudney & Hager, 2004). Two main problems, however, have been noted as the source of the low volunteerism among these age groups: the problem of recruitment and the problem of retention.

Charitable organizations face challenges when attempting to recruit late-midlife and older adults, particularly retired adults, as there are fewer opportunities to reach out to recruit volunteers. Much of volunteer recruitment tends to occur in the workplace (Williams, 2012). Whether it is signing up as part of a company team in a charitable walk or volunteering as a large group to package food for hungry children, the workplace serves as a means to access large numbers of potential volunteers with minimal resources expended by the organization (Foster-Bey et al., 2007). Once late-midlife and older adults leave the workforce, the opportunity to be asked to volunteer often goes away. Whether one is asked or not asked becomes a critical difference between volunteering and not volunteering for late-midlife and older adults. Among older adults who were asked to volunteer, 84.0 percent agreed to volunteer; in comparison, older adults who did not get asked only volunteered at a rate of 17.4 percent (Saxon-Harrold, McCormack, & Hume, 2000). Nearly a third of older adults (32%) surveyed by the AARP found that not

being asked to volunteer served as a barrier to volunteering (Williams, 2012). Most older volunteers, however, initiated the contact to organizations or was asked by a friend who volunteered for an organization rather than through recruitment efforts by the charitable organization (Tang & Morrow-Howell, 2008). Thus, signing up to volunteer requires an additional step for late-midlife and older adults.

Compounding the problems of recruitment is the challenge of retaining older volunteers. Using data from the 2002 Health and Retirement Study, Butrica et al. (2009) found that among adults aged 55 to 65 years old, volunteers often quit due to extenuating circumstances, such as caregiving needs of a parent, the onset or increase of functional limitations, or the onset or continuation of depression. Tang, Morrow-Howell, and Choi (2010) reported similar findings in which respondents ( $M_{age} = 72.0$  years,  $SD = 6.7$ ) identified having other commitments such as paid work or caregiving (33.3%), experiencing a health decline (27.1%), or having interpersonal problems with the organization (10.4%) that led to attrition from a volunteer organization. Annual turnover has been found to be just over 30 percent among baby boomers (32.5%) and among those from older generations (31.1%) (Foster-Bey et al., 2007). Organizations that rely on late-midlife and older volunteers face a 30 percent loss within the first year on their volunteer training investment and are less likely to invest their limited resources in recruiting late-midlife and older volunteers. As recruitment efforts further tax strained resources (Brudney & Hager, 2004), the need to reduce turnover among volunteers becomes even more important in sustaining opportunities for late-midlife and older volunteers. Identifying what attracts and sustains volunteers in later life becomes increasingly important as external factors draw late midlife and older adults away from volunteering.



**Characteristics of volunteers in later life.** Much of the literature focused on understanding volunteerism among older adults has focused on demographic and behavioral predictors of volunteering (e.g., Butrica et al., 2009; Foster-Bey et al., 2007; Tang et al., 2010). In general, having higher levels of education and health, as well as fewer functional limitations and being younger predicted greater involvement in volunteer activities (Williams, 2012; Saxon-Harrold et al., 2000). Zedlewski and Schaner (2006) found in their analysis from the Health and Retirement Study (HRS) of older adults that having a college degree (22.5%) was a better predictor of formal volunteering; whereas, rating one's health as very good or excellent (15.7%) and being younger (16.1%) were better predictors of informal volunteering. In an analysis of the 1993 Asset and Health Dynamics among the Oldest Old database (AHEAD), Choi (2003) reported similar findings in which higher levels of education and engagement in part-time work predicted the likelihood that participants would volunteer; however, older adults with lower self-rated health and greater functional limitations were less likely to engage in volunteer activities.

Engagement in other activities also is associated with volunteer participation. Volunteer activity has usually been thought of as something done to occupy extra time. As most volunteers are out of the formal workforce, one would expect more volunteers would be older adults. Yet, volunteering is done at a greater proportion by those between 35 to 44 years of age (BLS, 2016). Additionally, among baby boomers born between 1946-1964, those who have not reached traditional retirement age volunteer at higher rates (30.9%) than those in the silent generation (born between 1931-1945; 23.2%) or the greatest generation (born between 1910-1930; 25.3%). Most volunteer opportunities are

introduced either through the work place or through children's school activities, which may account for the lower participation rate among older adults (Foster-Bey et al., 2007).

In general, younger, healthier, educated working adults who have previously volunteered are more likely to be a volunteer in later years than are those who are older, in poorer health, less educated, and less active. While sociodemographic characteristics describe some differences between late midlife and older volunteers and non-volunteers, understanding what motivates these volunteers also provides a key component to volunteer engagement in later life.

### **Motivations to Volunteer**

**Multidimensional model of volunteer motivations.** Motivations to volunteer have also been a focus of research to help understand contributions that lead to civic engagement. Models of volunteer motivation have evolved from a single motive of altruism to a more nuanced multidimensional description of volunteerism. From its etymological roots, volunteering has been associated with the idea of giving to others with little expected in return (Cnaan et al., 1996). This notion of altruism as the core of volunteering, however, has little support in the literature as volunteers also exhibited more egoistical or self-serving motives, including material rewards and social motivations (Finkelstein, 2009; Frisch & Gerrard, 1981; Monga, 2006). In their survey of existing literature on volunteering, Clary, Snyder, and Ridge (1992) identified multiple dimensions of volunteering. They explained that individuals decide to engage in volunteering activities in order to satisfy social and personal needs and goals. Grounded in functional analysis (Snyder, Clary, & Stukas, 2000), Clary and colleagues (1992) proposed that the single action of volunteering can be the result of different motivations

that serve functional needs for each individual. This theory assumes that volunteers will select activities that serve a particular function or motivation and will continue to sustain their volunteering if those needs continue to be met by the activity (Stukas et al., 2009).

Clary and colleagues (1992) posited that a multidimensional model of volunteer motivation is comprised of six functions - values, social, understanding, protective, enhancement, and career. First, the values function is a carry-over from what is traditionally associated with volunteering, altruism. People volunteer because they value helping others in need or serving as an advocate for important groups or causes. Volunteering provides an opportunity to act in ways that reflect their values about themselves. For some, volunteering is motivated by social needs, the second function. People volunteer because family, friends, or social groups influence them. Volunteering allows individuals to meet social expectations to behave in a desirable way based on norms established by their social network while satisfying their need for social interactions. The understanding function, the third function, emphasizes seeking new experiences as well as opportunities to apply existing knowledge, skills, and abilities. Volunteering provides the opportunity to expand the scope of experience, learn new skills, or take previous learning and apply it to helping others. The non-tangible benefit for the volunteer, then, comes from understanding others and sharing of oneself. Fourth, volunteering can serve as a protective function against experiencing negative feelings such as loneliness or guilt. While others in need benefit from the donated time and money, the primary benefit sought by the volunteer is to create a buffer using volunteering to minimize negative feelings about oneself. Some individuals are motivated to volunteer because of the enhancement or improved self-esteem that comes

from volunteering, the fifth function. Volunteering creates a positive effect on psychological well-being for the volunteer as engaging in these activities adds feelings of being needed and importance. This function differs from the first function of values as it is not based in altruistic motivations but is based on more self-oriented goals, like improving oneself and increasing self-esteem. The final motivation, career function, focuses on assisting volunteers with career exploration and networking. Volunteering is an opportunity to explore career paths, develop network connections, and gain knowledge and skills with little previous work experience.

Identifying the underlying motivation for older adults choose to engage in volunteering can be challenging due to the variability of abilities, resources, and experiences of older adults (e.g., Celdrán & Villar, 2007; Deery, Jago, & Mair, 2011; Van Vianen et al., 2012). Clary and colleagues (1996), however, suggested that by understanding the functional approach of the theory of motivation to volunteering and through the use of instruments like the Volunteer Functional Inventory (VFI), a 30-item scale designed to measure these six functions of volunteer motivation, organizations can better understand why older adults select volunteering as an avocational choice.

Yoshioka, Brown, and Ashcraft (2007) also confirmed a multidimensional model for volunteer motivation and found differences in volunteer motivations between volunteers and non-volunteers aged 50 years and older. Egotistical motivations (e.g., enhancement, understanding, and protective functions) were stronger among non-volunteers but weaker among volunteers in later years, but no differences were noted for altruistic motivations (e.g., values and social functions) between volunteers and non-volunteers. In contrast, Clary et al. (1996) found among adults 18 years old and older surveyed by the Gallup

organization that those currently volunteering rated the values and social functions highest. Those who had previously volunteered reported somewhat lower ratings on the values and social functions, whereas those who had never volunteered reported the lowest ratings on altruistic motivations. Moreover, those who either currently or previously reported volunteering rated the enhancement function higher than did those who had never volunteered. These different findings suggest that the salience of some volunteer motivations may change with age.

Age and other sociodemographic characteristics has been noted to influence motivation to volunteer. In their survey of adult volunteers for Habitat for Humanity International, Okun and Schultz (2003) reported that age was inversely related to career and understanding motivations but positively related to volunteer motivations aimed at meeting social needs. Planalp and Trost (2009) also found that age and other sociodemographic factors affected volunteer motivation in their study of 351 long-term hospice volunteers. They reported that being female and older was associated with stronger values and understanding motivations, whereas career motivations was stronger among younger volunteers. Married and higher educated volunteers reported weaker enhancement and protective motivations, while retirees expressed greater social motivation to volunteer. These variations in the importance of volunteer motivations based on one's age, gender, marital status, education, and employment supports the multidimensional model for volunteer motivation. It also raises the question of how volunteers' motivations relate to their volunteering behaviors.

## **Satisfaction with Volunteering**

A primary focus for volunteer organizations has been to improve feelings of satisfaction among their volunteer force (e.g., Davis et al., 2003; Okun et al., 2014; Omoto & Snyder, 1995). In order to attract and retain volunteers, organizations aim to create volunteer experiences that will promote organizational commitment. Just as job satisfaction has been associated with paid employment outcomes, such as turnover behavior, volunteer satisfaction may also be key in predicting volunteer behaviors (Galindo-Kuhn & Guzley, 2001). A growing body of research has demonstrated some known predictors of volunteer satisfaction, including volunteer motivations and the amount of time spent volunteering.

**Volunteer motivation and satisfaction.** Overall motivation has been associated with how satisfied one feels about their volunteer experience (Vecina et al., 2012; Wong et al., 2011); however, three volunteer motivations (i.e., values function, social function, and enhancement function) are most frequently associated with volunteer satisfaction. Although altruism is foundational to the very concept of volunteering, the values function has been found to be strongly related to volunteer satisfaction across types of volunteer organizations (e.g., hospice, community AIDS service organizations, and sporting events), (Bang et al., 2012; Boezeman & Ellemers, 2009; Finkelstein, 2008). Whether it is providing information at a Professional Golf Association (PGA) tour event or sitting bedside holding hands of a hospice patients, those who view altruism as a core value experience greater satisfaction with their volunteer experience regardless of setting.

While satisfaction related to the values function stems from an altruistic stance, the relation between social function and volunteer satisfaction have both altruistic and

egotistical motivations. Some volunteers endorse greater satisfaction as their volunteering fulfills feeling of social responsibility and shared commitment with those around them (Omoto & Snyder, 1995). Others find the opportunities for social interactions and the ability to expand their social networks as reasons why they find volunteering satisfying (Kerschner & Rousseau, 2008; Pauline, 2011). The relation between volunteer satisfaction and social function highlights the multifaceted nature of the volunteer experience.

Volunteer satisfaction, however, is not solely related to altruistic motivations. Whether it is to increase knowledge, learn practical skills, experience personal growth, or feel better about oneself, self-oriented motivations have also been found to predict volunteer satisfaction (Davis, et al., 2003). Most commonly associated with volunteer satisfaction is endorsement of the enhancement function (Boezeman & Ellemers, 2009; Penner & Finkelstein, 1998), particularly among older volunteers (Clary et al., 1998). In their study of 146 volunteers at local HIV/AIDS clinics, Penner and Finkelstein (2008) reported that volunteers who placed greater importance on personal development and feeling good about oneself reported finding their volunteer experience more satisfying than those who did not. Satisfying volunteer experiences extends beyond simply being an act of altruism but also includes the needs of the volunteer.

**Amount of time volunteering and satisfaction.** It is not surprising that there is also a strong relation between the amount of time spent volunteering and feelings of satisfaction with the volunteer experience (e.g., Pauline, 2011; Penner & Finkelstein, 1998; Wong, Chui, & Kwok, 2011). One would expect that the more you enjoy an activity, the more time you would engage in doing said activity. This relation, however,

may also be due to the positive effect greater amount of time spent volunteering has on perceptions of physical health and overall mood. After controlling for marital status, socioeconomic status, and baseline health and functioning, Lum and Lightfoot (2005) found that older adults who volunteered at least 100 hours in the year prior to their baseline interview (in 1993) were more likely to maintain similar levels of self-rated health more than 15 years later (in 2000) than were older adults who did not volunteer at least 100 hours per year. Furthermore, greater time commitment to volunteering has been noted to be negatively related to the development of depressive symptoms among older volunteers (Hong & Morrow-Howell, 2010; Kahana, Bhatta, Lovegreen, Kahana, & Midlarsky, 2013). In addition to the physical and psychological benefits that comes from spending more time volunteering, the actual amount of time one commits to regularly volunteer may indicate enjoyment of the activity itself, resulting in an overall satisfying volunteering experience (Bang et al. 2012; Vecina, Chacon, Suiero, & Barron, 2012).

### **Commitment to Volunteering**

**Volunteer motivation and commitment.** Charitable organizations' dependence on volunteers can only be sustained if the benefits of having volunteers outweigh the cost of training and turnover. Predicting commitment of volunteers to continue with the organization is critical for charitable organizations to strategically plan for the people they serve. Unlike volunteer satisfaction, there are less consistent findings regarding the relations between volunteer motivations and volunteer commitment. Some studies point to the importance of altruistic (e.g., values function) motivations in predicting volunteer commitment (Penner & Finkelstein, 1998); while others note that self-oriented (e.g.,



understanding and enhancement functions) motivations were more likely to predict one's future commitment to the volunteer organization (Davis et al., 2003). For example, inconsistent relations between volunteer motivations and commitment have been found among volunteers for community based AIDS/HIV organizations. Omoto and Snyder's (1995) longitudinal study of volunteers ( $N = 116$ ) found that motivations based on understanding, personal development, and esteem enhancement were related to duration of service, but altruistic motivations were not significantly related to how long one commits to the organization. In contrast, a more recent study of AIDS organization volunteers found that having other-oriented motivations were more likely to predict civic engagement than self-oriented motives (Omoto & Snyder, 2010). Such inconsistent findings between the relations of volunteer motivations and intent to commit, even among similar volunteer populations, warrant further investigation regarding the relations between volunteer motivations and commitment to volunteering.

**Volunteer satisfaction and commitment.** One intuitive relation to volunteer commitment is with volunteer satisfaction. Barring external factors, being satisfied with volunteering would suggest a greater likelihood that one would continue to volunteer in the future. Yet, investigations exploring the relation between volunteer satisfaction and volunteer commitment have also found mixed results. Among volunteers from one organization who work with individuals with disabilities, Boezeman and Ellemers (2009) found that greater satisfaction with the volunteer job was associated with an increased likelihood to commit to future volunteering with the organization compared to those who endorse less satisfaction. Yet in their study of several community charitable organizations, Davis and colleagues (2003) found no relations between volunteer

satisfaction and volunteer commitment. Developing strategies to increase organizational commitments, then, becomes more challenging due to the lack of direction from these inconsistent findings.

### **Volunteering and Career Motivations**

One consistent finding is the absence of relations between career motivations and volunteer behavior in later years. Older volunteers were less likely to endorse career functions as important than were younger volunteers (Okun & Schulz, 2003; Planalp & Trost, 2009). Moreover, career functions were less likely to be associated with volunteer satisfaction and commitment for older adults (Stukas et al., 2009). The development of the multidimensional model of volunteering included volunteers across the lifespan (Clary et al., 1996; Clary et al., 1998); however, this may not have accounted for variations in motivations that volunteering may serve depending on one's stage of development. For example, while the volunteering experience provides career development opportunities for younger volunteers, volunteering may be address career-related loss among late midlife and older adults (Houle et al. 2005; Stukas et al., 2009). Furthermore, many of these findings are based on models of volunteering that do not account for age-related changes that may affect volunteer participation. In their review of the American Changing Lives database, Okun and colleagues (2014) reported that the likelihood of continued volunteering declined with increasing age. Increasing external demands (e.g., caregiving needs) and decreasing internal resources (e.g., decline in health) further complicate the relation between motivation and satisfaction with the volunteer experience and the intention to commit to future volunteering (Tang et al., 2010). Therefore, framing volunteerism within a lifespan perspective may provide

greater understanding of the role that career interests, along with volunteer motivations, play in the volunteer behavior among late midlife and older adults.

### **Motivational Theory of Lifespan Development (MTLD)**

The motivational theory of lifespan development (MTLD) incorporates age-related factors when conceptualizing motivation in later years. Shifting from traditional theories of aging that emphasize loss and withdrawal (e.g., disengagement theory, activity theory), theories grounded in lifespan psychology, such as MTLTD, view aging as a series of steps that are taken to maximizing gains while mitigating losses (e.g., Baltes, 1997; Baltes, Staudinger, & Lindenberger, 1999; Carstensen, 1995; Freund & Baltes, 1998; Heckhausen & Schultz, 1995; Schulz & Heckhausen, 1996). This framework provides a decisional rubric that responds to changes based on normative age-graded influences (e.g., puberty or old age), history-graded influences (e.g., economic depression or technological advances), and non-normative influences (e.g., unexpected illness or divorce,) across the lifespan (Baltes & Smith, 2004). This decisional model is comprised of three steps: selection, optimization, and compensation (Baltes, 1997; Baltes et al., 1999). The first step of selection describes the process in which goals and domains are chosen. The second step, optimization, describes the acquisition and application of internal and external resources in pursuit of the selected goal. Finally, compensation strategies are employed in order to adapt to the loss of internal and external resources that is expected with aging. Please refer to Appendix A or more detailed description of the Theory of Lifespan Development.

Heckhausen, Wrosch, and Schultz (2010) argued that for older adults, compensation strategies are a more salient component of the model as there are less

available internal and external resources in later years. With age, there is greater environmental press resulting in loss of internal and external resources, and age-associated losses become compounded due to decline in biological vigor that occurs across the lifespan (Baltes, 1998; Baltes & Smith, 2003; Baltes et al., 1999; Freund, Nikitin, & Ritter, 2009; Schulz & Heckhausen, 1996). As a result, the same compensatory strategies that were effective at age 20 either are not available or are less efficacious at age 70. Consequently, individuals need to develop alternative compensatory strategies in order to cope with declines in opportunities and resources. Heckhausen and Schultz (1999) also posited that the primary motivation across the lifespan is to maximize one's ability to attain selected goals. How one goes about reaching these goals, however, changes with age. As one grows older, primary control options (e.g., changing the environment to meet one's needs) are less available, and there is a greater need to employ secondary control strategies (e.g., changing the self to align with environmental forces). Thus, older adults may need to explore alternative strategies to meet their motivational goals.

### **Application of MTLT: Career Interest and Volunteerism**

**Career interests along the lifespan.** A central domain in life regardless of age is one of career interests. One's career interests and personality types remain relatively stable with age. In their cross-sectional exploration of career interests and personality styles, Costa, McCrae, and Holland (1984) compared two cohorts (aged 21 to 55 and aged 56 to 89) and noted that while participants under the age of 55 scored higher on Realistic, Artistic, and Enterprising types, the differences had relatively small effects sizes ( $\omega^2 = .028$  to  $.052$ ). Moreover, they found no relation between age and

differentiation of interests, suggesting that career interests remain relatively stable across adulthood and into later ages. Greller's (2006) study of 450 male alumni from a large university supported the finding that career interest remains relatively stable across adulthood. Comparisons across four age groups (ages 23 to 31 years; 32 to 39 years; 40 to 49 years; 50-70 years) indicated that while those in their 20's spent more time on professional development and were more motivated to engage in career-related activities, no differences were found among those in their 30's, 40's or 50's/60's. Furthermore, age did not have any effect on the number of hours dedicated to career-related tasks. Career interest differences appear to be more notable between younger age groups; however, interests become relatively stable throughout adulthood including later years. Tsabari and colleagues (2005) also reported differences in the relation between person-environment (P-E) congruence and satisfaction across age, noting a stronger relation for younger workers than for older workers. These findings suggest that career interests remain stable but the relations between interest congruence and activity may change in later life. Moreover, environmental shifts, such as retirement and fewer employment opportunities, may then result in an unmet need regarding career interests and motivations. Since the ability to enact primary control by changing the environment is often not available for career domains, application of secondary control strategies may be necessary in order to fulfill motivations of career interests.

**Loss of primary control following retirement.** Whether it is due to environmental changes (e.g., forced retirement) or due to age-associated decline in biology (e.g., health problems), retirement reduces the availability for individuals to seek opportunities that help fulfill their career motivations. Moreover, the effect of retirement

is that older adults have fewer opportunities to pursue productive activities that are most protective against physical, functional, and psychosocial declines (AoA, 2015; Johnson, Pitt-Catsouphes, Besen, Smyer, & Matz-Costa, 2008; BLS, 2016). In retirement, many find themselves increasingly sedentary and isolated as they lose opportunities to engage in social contacts that come with being at work (Cornell, Laumann, & Schumm, 2008; Nahum-Shani & Bamberger, 2011). While retirement may seem to present the opportunity for older adults to engage in enjoyable leisure and social activities, Berger and colleagues (2005) found that retirees failed to fill their days with activities to match the level of engagement they had while still employed. Rather, retirement led to fewer moments of ‘doing something’ throughout the day as older adults only marginally increased the amount of activity they engaged in at home and/or in leisure activities. Subsequently, older adults often lose the physical, psychological, and social benefits of employment, leaving a void in activity opportunity.

Ekerdt (1986) noted that following retirement older adults face a vacuum in time that they need to fill with other activities. Values of and the commitment to work do not automatically change simply because one leaves the workforce, and the exigencies of being retired do not always afford ways to fulfill this “busy ethic” (p. 239). While changing the employment landscape may be out of the control of aging adults, volunteering can serve as a secondary compensatory strategy in maintaining this busy ethic. For example, among older adults enrolled in an arthritis management program, participants identified being strongly motivated to fill the vocational void and experiencing loss of intellectual challenge following retirement with other productive

activities (Hainsworth & Barlow, 2001). Despite the loss of employment opportunities, the desires to engage in productive activities remain after retirement.

**Volunteering as secondary control.** Volunteering, then, may provide an avenue in which retirees can regain control over their vocational-related interests and goals and continue to be a productive member of society (Ekerdt, 1987; Simon & Osipow, 1996). In a qualitative study of eight older volunteers (age ranged from 58 to 71 years), Callow (2004) found that volunteering served to replace some of the functions of paid employment, including more structure of their time and avenues to socialize with others. Moreover, participants reported that volunteering gave them a sense of control over their lives as they were able to establish when and how much of their time they devoted to the volunteer organization. As a result, participants reported a greater sense of purpose when they engaged in volunteering compared to engaging in leisure activities.

Volunteering also serves as a secondary compensatory strategy in maintaining intellectual and physical activity levels to help combat the anticipated losses associated with aging (Berger, Der, Mutrie, & Hannah, 2005; Derry et al., 2011). Many of the protective factors of employment (e.g., social contact, activity levels) may be replaced with increased participation and persistence in volunteering. Hong and colleagues (2009) noted that older adults who volunteered had similar physical and psychological health benefits as those who remained in the work force. Activities requiring higher functioning, such as volunteering, have also been associated with improved morale, greater mobility, better health-related quality of life, and overall well-being (e.g., Balboa-Castillo, Leon-Munoz, Graciani, Rodriguez-Artalejo, & Guallar-Castillon, 2011; Freysinger & Stanley 1995; Malmberg, Miilunpalo, Pasanen, Vuori, & Oja, 2006).

Furthermore, volunteering can provide older adults with a sense of purpose following the loss in the wage-earner role (Greenfield & Marks, 2004). Therefore, for older adults, volunteering may be the type of activity that not only engages a higher functioning level but also provides opportunities to explore career interests in later life.

### **Congruence between the Volunteer and Volunteering**

There is some literature supporting the importance of person-environment fit and volunteerism (Houle et al., 2004; Van Vivien et al., 2008). In their evaluation of volunteers affiliated with a regional volunteer referral and placement agency, Stukas and colleagues (2009) noted that motivation to volunteer as a global factor was not predictive of how satisfied older adults were with their volunteer experience but perceptions of match between their motivations and their volunteer activity was positively related to volunteer satisfaction and commitment. One exception was with career motivation. Among older volunteers, career match was not related to satisfaction with the volunteering experience but was negatively related to intent to continue to volunteer for the organization. While career motivation for volunteering may be salient for young adults who are embarking on a career, the same relation between volunteering and career motivations may not be true for those at the end of their career trajectory. While career interests and motivations to meet those needs endure in later years of life, discerning how well a volunteer experience fits to one's career interest may provide an approach to including career-related domains as related to volunteering among late-midlife and older adults.

**Career interests and personality types.** Holland's (1959) theory of vocational personalities suggested that individuals select occupational environments based on



vocational personalities that are shaped through cultural and personal forces. The most studied career theory (Brown & Lent, 2004), Holland's (1997) theory of vocational personalities has been used to develop career-related interventions designed to optimize career choice and exploration (Nauta, 2010). Holland (1997) proposed that individual's career interests take the form of a hexagonal structure based on six basic career personality types (i.e., Realistic, Investigative, Artistic, Social, Enterprising, and Conventional; RIASEC) that correspond to a similar pattern of six types of work environments. Tracey and Rounds (1995; 1996) explained that the hexagonal structure of personality types is not the defining structural characteristic of occupational interest; rather, the circumplex nature of these interests along two dimensions of People/Things and Ideas/Data posited by Prediger (1982) is most salient in understanding the relation among different career personality types. Because the number of divisions of the circumplex ordering of career personality types is somewhat arbitrary, Tracey and Rounds (1995) recommended using an eight-scale representation to provide sufficient data representation while still maintaining a parsimonious description of career personality.

#### **Person-environment congruence and career satisfaction and persistence.**

Extensive research has explored the relations of person-environment (P-E) congruence to career satisfaction and persistence (e.g., Assouline & Meir, 1987; Meir & Tzadok, 2000; Tsabari, Tziner, & Meir, 2005). Greater congruence between vocational personality and occupational environment characteristics has been found to predict career or academic major choice, stability, and persistence (Nauta, 2010). Additionally, P-E congruence has been noted to be related to job satisfaction. Meir and Tzadok (2000) found a moderate

correlation between congruence and job satisfaction among tenured employees at various job settings, such as travel agencies and day care centers. In contrast, a meta-analysis examining the relation between congruence and satisfaction found a modest relation of .16 to .17 (Tsabari, et al., 2005). Tsabari and colleagues (2005) suggested that the lower effects size of congruence on satisfaction may be due to the moderating effects of culture and age.

Person-environment congruence has also been found to predict academic and employment persistence (e.g., Meir, Tziner, & Glazner, 1997; Meir, Esformes, & Friendland; 1994; Tracey, Allen, and Robbins, 2012). Research, however, has revealed varied relations between congruence and persistence. For example, Meir and colleagues (1997) reported that after following individuals employed in the first three months after graduating college only 64% of those who reported low congruence at baseline were still employed at retest while 93% of those with high congruence were still employed, suggesting that level of congruence was related to employment persistence. Meir et al., (1993) reported modest to moderate correlations between congruence and persistence for those employed in the ‘business’ or ‘technology’ fields but no relation for those in the ‘organization’ field. These varied results may be explained by findings that suggest moderating effects of environmental constraints and personal flexibility in the relation between P-E congruence and persistence (Tracey et al., 2012). Congruence plays a greater role in persistence for environments with greater constraints and homogeneity than for environments with lower constraints and more heterogeneity. Furthermore, they found that congruence would be more important for individuals with lower levels of

interest and less flexibility in their vocational personality than it would be for those with higher levels of interest and greater flexibility.

While volunteering can serve as a secondary coping strategy for role loss in the transition to later life, volunteer activities can also buffer against normative age-related health declines that come with longevity. Assessing how volunteering may serve to meet career interests and motivations can be done by utilizing tools measuring congruence based on career development theories rather than on volunteering alone. By including career interests as part of the volunteer experience in later life, organizations may be able to address better the recruitment and retention of late midlife and older volunteers.

### **Summary**

Ingrained in the foundation of the United States, volunteering remains an integral component of American society. Volunteers, including late-midlife and older volunteers, are estimated to contribute over \$1 billion worth of services annually (CNCS, 2016). Moreover, volunteering has been noted to buffer against age-related declines in physical health, functional capacity, cognitive health, and psychosocial well-being. Despite the benefits of volunteering, the recruitment and retention of volunteers in later life remains a challenge with less than one-quarter of late-midlife and older adults participating in volunteer activities (BLS, 2016).

What is known about volunteerism in later life is that older volunteers tend to be younger, healthier, have higher levels of educations, and engage in paid employment. Moreover, late-midlife and older volunteers endorse a variety of motivations to volunteer. In addition to the amount of time spent volunteering, altruistic values, social needs, and enhancement or esteem functions are most closely related to volunteer satisfaction for

late-midlife and older volunteers. Intent to commit to volunteering in the future, however, had mixed relations with volunteer motivations.

Career-related motivations, however, was not associated with volunteerism in later life despite career interest stability across the lifespan. This inconsistency is likely the result of excluding age-related factors in conceptualizing volunteering. To integrate volunteering within the broader context of lifespan development, the motivational theory of lifespan development was introduced to address the role-loss associated with retirement. Moreover, tools from career development theories were discussed to examine the role of volunteering as a secondary compensatory strategy to meet career-related motivations.

### **Purpose of the Study**

The growing population of older adults and the potential social and personal benefits of volunteering warrants the development of a comprehensive model explaining volunteering that includes age-related factor. As baby boomers age, there will be an increasing pool of talent and skills that may not be best utilized without active measures to ensure their participation in activities such as volunteering. Although volunteering has been demonstrated to be a protective factor against age-related declines and promotes successful aging (e.g., Balboa-Castillo, et al., 2011; Freysinger & Stanley 1995; Malmberg, et al., 2006), improvements to older volunteer recruitment and retention are warranted.

As the aging process is a series of selection, optimization, and compensation to protect primary control capacity (Baltes, 1997; Baltes & Smith, 2004; Heckhausen et al., 2010), attempts to affect the environment (primary control) or to adjust oneself to these

environmental changes (secondary control) are motivated by the need to maintain interests that are important (Schulz & Heckhausen, 1996). When older adults leave the workforce, whether by force or by choice, they experience a loss in an activity that met these interests. As theories of person-environment congruence for careers have demonstrated, matching interests to career environments can optimize career satisfaction and persistence. For older adults, leaving the workforce does not make these interests disappear. Instead, the vehicle through which these interests were being met no longer is available to them. Because volunteering may serve as an alternative mode to paid employment, the purpose of this study was to understand the relation of interests-activity congruence to the volunteer experience and how it may serve to facilitate future volunteerism among older adults. The research questions and hypotheses related to this purpose are detailed below.

### **Research Questions and Hypotheses**

**Q1:** What are the relations among amount of time volunteering, volunteer motivations, volunteer-activity congruence, and volunteer satisfaction?

H1: More time spent volunteering will be related to greater volunteer satisfaction.

H2: Higher endorsement of volunteer motivations (social, values, understanding, protective and enhancement functions) will be related to greater volunteer satisfaction.

H3: Stronger volunteer-activity congruence will be related to greater volunteer satisfaction.

H4: Volunteer-activity congruence will contribute to volunteer satisfaction above and beyond the linear combination of time spent volunteering and volunteer motivations.

**Q2:** What are the relations among volunteer satisfaction, volunteer motivations, volunteer-activity congruence, and future volunteer commitment?

H5: Greater volunteer satisfaction will be related to increased likelihood to commit to volunteering in the future.

H6: Higher endorsement of volunteer motivations (social, values, understanding, protective and enhancement functions) will be related to increased likelihood to commit to volunteering in the future.

H7: Stronger volunteer-activity congruence will be related to increased likelihood to commit to volunteering in the future.

H8: Volunteer-activity congruence will contribute to volunteer commitment above and beyond the linear combination of volunteer satisfaction and volunteer motivations.

## CHAPTER 3

### METHODS

#### **Participants and Recruitment**

**Procedure and recruitment.** Following the approval by the Institutional Review Board (see Appendix B), administrators of volunteer organizations were contacted via email to request their assistance in recruiting older volunteers for the current study. Organizations that distributed the information letters included a state chapter of the Senior Corps program, a local chapter of Habitat for Humanities, a local chapter of the Kiwanis Club, a senior community center, a continuing care community, and Volunteer Match, which is an online volunteer match service. Volunteer administrators were asked to distribute information letters about the current study and instructions on how to access the online survey using SurveyMonkey software, which was used for data collection.

Local Senior Corps administrators referred the study to the Director of the Senior Corps program, who identified the research director of a local chapter of Senior Corps in a large southwestern state as the point of contact for procedures on accessing Senior Corps volunteers for the current study. Due to the absence of an email list for Senior Corps volunteers, a letter from the research director of the chapter (see Appendix C) was mailed to volunteers along with the information letter directing older volunteers to the SurveyMonkey site. In order to protect the privacy of the Senior Corps volunteers, sealed, stamped envelopes containing the chapter letter and the information letter were taken to the offices of the research director who supplied pre-printed mailing labels with Senior Corps volunteers' names and addresses to affix to the envelopes. Envelopes were

then mailed to volunteers, and those interested were directed to the link to complete the online survey.

The volunteer coordinator at the senior community center requested a paper-pencil version of the survey due to concerns about access to computers among her volunteers. Sealable envelopes with blank surveys were provided to the administrator, who was responsible for the distribution and collection of all of the surveys. The administrator ensured the envelopes were sealed prior to returning them to this author. Completed surveys were then manually entered into the online database.

Most respondents were recruited using volunteer organizational private email lists not shared with the current study and a response rate could not be calculated. For Senior Corps volunteers, a total of 530 letters were mailed requesting participation in the current study. Forty-five older volunteers completed the survey, for a response rate of 8.5% response rate.

All volunteers were provided information about the study and informed consent was obtained prior to participants completing the surveys (see Appendix D). No identifying participant information was collected. As part of the informed consent process, participants were notified that a \$2 donation to their charity of choice would be made and were asked to identify the charity at the completion of the survey.

**Sample power.** In order to determine whether the current study has adequate power or the probability to detect significant effects (Tabachnik & Fidell, 2007), a priori analysis of power and sample size ( $1 - \beta = .80$ ,  $\alpha = .05$ ,  $f^2 = .15$ ) was conducted. A G\*Power (2009) analysis indicated that a sample size of 127 was required for the



regression procedures utilized in this study (Faul, Erdfelder, Lang, & Buchner, 2009; Faul, Erdfelder, Buchner, & Lang, 2009).

**Participant characteristics.** Two hundred and twelve volunteers, aged 50 and above, participated in this study; however, 39 participants were excluded from the analysis due to missing over 50% of the response sets on scales measuring the study variables. Three participants were excluded as they did not meet the age criteria of at least 50 years old. Another three participants were excluded as the number of hours they volunteered was determined to be an outlier. A total of 167 participants were included in the current study for analyses. The average age of participants was 68.80 years old ( $SD = 9.33$ ), and they ranged from 50 to 90 years old. Seventy-five (45.5%) older men and 90 (54.5%) older women participated in the current study. The vast majority of participants identified their race as White or Caucasian ( $n = 150$ ; 90.4%), and more than half reported being married or in a domestic partnership or civil union ( $n = 102$ ; 61.8%). Nearly all of the participants had some college experience ( $n = 164$ ; 96.4%), and most reported being retired ( $n = 115$ , 68.9%). Thirty participants reported currently engaging in paid employment (18.0%) and nearly one in five (21.1%) had either served in the U.S. military in the past ( $n = 30$ ; 18.0%) or were currently serving in the Reserves or National Guard ( $n = 5$ ; 3.0%). Table 1 presents more detailed demographic information (Appendix E).

In general, participants reported being in good health. The majority (93.4%) of participants rated their health as “good” ( $n = 41$ ; 24.6%), “very good” ( $n = 67$ ; 40.1%), or excellent ( $n = 48$ ; 28.7%), and no respondent indicated having “poor” health. When provided with a list of ten different health conditions, more than two-fifths ( $n = 71$ ; 44.9%) reported being diagnosed with arthritis and 34.2% ( $n = 53$ ) identified as being

diagnosed with hypertension. Twenty-five (16.7%) respondents indicated having problems with their feet, while 21 (13.7%) participants reported being diagnosed with diabetes. Nearly one-third of respondents ( $n = 50$ ; 29.9%) did not report any of the listed ten health problems; however, more than one-third of participants ( $n = 63$ ; 37.7%) indicated having multiple health conditions.

### **Measurement of Study Constructs**

**Participant demographic information.** In addition to three study instruments, participants completed a demographic sheet (see Appendix F). Participants were asked to provide sociodemographic information, including age, sex, race/ethnicity, employment status, marital status, and living arrangements. Participants were also asked about their physical health, including self-rated health and whether they had previously or currently been diagnosed with any of ten health conditions. Measures of self-rated health were based on items used in the *American's Changing Lives* study that included responses to “How would you rate your health at the present time?” that was assessed on a 5-point scale (1 = *poor*, 2 = *fair*, 3 = *good*, 4 = *very good*, 5 = *excellent*) and a sum of responses (1 = *yes*; 0 = *no*) about whether they had experienced any of ten chronic conditions in the past 12 months. The conditions include arthritis, lung disease, hypertension, heart attack, diabetes, cancer, foot problems, stroke, broken bone, and urine beyond control (House, Lantz, & Herd, 2005; Tang, 2009).

In order to account for possible sociodemographic and health characteristic confounds known to be related to volunteer participation and to volunteer motivations, potential covariates (age, sex, marital status, education level, employment status, and self-rated health as described above) were included in the regression models. Sex was

coded as male (“1”) or female (“2”). Marital status was coded as “1” for married (married, domestic partnership or civil union, or single but cohabitating with a partner) and as “2” for not married (single, never married, widowed, divorced, or separated). Education was coded as less than a 4-year college degree (“1”) and a 4-year college degree or higher (“2”). Employment was coded as “1” for employed (full-time or part-time) and as “2” for not employed (retired, not employed but seeking work, not employed but not seeking work).

**Volunteer motivations.** Volunteer motivations describe global functions of volunteering that underlie why individuals choose to engage in volunteering activities. These multifaceted functions (e.g., social, values, career, understanding, protective, and enhancement) vary in salience as the exigencies for the individual changes across the lifespan. Career functions decline in importance in later years; whereas social functions become more central with age (Stukas et al., 2009; Yoshioka, Brown, & Ashcraft, 2007). In order to assess five of the six functions of volunteering, a modified version of the *Volunteer Functional Inventory* (VFI; Clary, Snyder, & Ridge, 1992; Clary et al., 1998) was used.

The original VFI is a 30-item scale based on functional theory of motivation to volunteer (Clary et al., 1992; 1998). Clary and colleagues (1992) reviewed the extant literature on volunteering to understand the underlying motivations for why individuals choose to volunteer. They noted that identifying an individual’s motivation and the function volunteering serves for that person would assist in the process of recruitment, placement, and retention of volunteers. Based on six functions of volunteering (values, understanding, career, social, esteem, and protective) gleaned from the existing literature,

Clary and colleagues (1998) developed 30 items (5 items for each function) based on preliminary studies. Volunteers ( $N = 467$ ) from five organizations rated how important or accurate the items were in reflecting their reasons for volunteering. Testing whether the items would fit a five-, six-, or seven-factor solution, Clary and colleagues (1998) found that the six-factor solution was the best fit with each item loading on to the intended scale, except for one item from the enhancement scale that loaded onto the understanding scale. A cross validation study with introductory psychology students ( $N = 535$ ) confirmed that the six-factor solution was the best fit (Clary et al., 1998). In addition, high internal consistency for each of the subscales was found, with Cronbach's alpha coefficients ranging from .80 to .84 (Clary et al., 1998). The VFI also demonstrated acceptable four week test-retest reliability for the values scale ( $r = .78$ ), the understanding scale ( $r = .77$ ), the enhancement scale ( $r = .77$ ), the social scale ( $r = .68$ ), the career scale ( $r = .68$ ), and the protective scale ( $r = .64$ ; Clary et al., 1998).

For the current study, a modified version of the VFI, excluding items from the career function subscale was used (See Appendix G). The 25 items for the remaining five subscales were included in the study survey. The *social function* subscale consists of items such as "People I'm close to want me to volunteer" and "My friends volunteer." The *values function* subscale includes items such as "I feel compassion toward people in need" and "I can do something for a cause that is important to me." The *enhancement function* subscale consists of statements such as "Volunteering makes me feel important" and "Volunteering makes me feel better about myself." The *protective functions* subscale includes items such as "By volunteering I feel less lonely" and "Volunteering is a good escape from my own troubles." The *understanding function* subscales contains items

such as “Volunteering allows me to gain a new perspective on things” and “I can explore my own strengths.” Respondents rated the importance of each item on a 7-point Likert type scale from 1 (*not at all important/accurate*) to 7 (*extremely important/accurate*). Scores for each subscale were summed and could range from 5 to 35, with higher scores signifying greater importance for the function of motivation to volunteer. Internal consistencies for the subscales were higher in this study than those reported in Clary and colleagues’ original studies. For the current study, the Cronbach’s alphas were .90 ( $M = 15.88$ ;  $SD = 8.56$ ) for *social functions*, .91 ( $M = 29.65$ ;  $SD = 5.94$ ) for *values functions*, .91 ( $M = 26.29$ ;  $SD = 7.40$ ) for *understanding functions*, .85 ( $M = 11.46$ ;  $SD = 6.80$ ) for *protective functions*, and .89 ( $M = 19.76$ ;  $SD = 7.75$ ).

**Volunteer-activity congruence.** Volunteer-activity congruence measures how characteristics of volunteer’s interests (person) match the characteristics of the volunteering activities (environment). Congruence was determined first by assessing two components, volunteers’ interests and characteristics of the volunteers’ activities, and then creating an index that calculates the match between volunteers’ interests and characteristics of volunteers’ activities.

**Volunteers’ interests.** A modified version of the Personal Globe Inventory – Short Form (PGI-Short; Tracey, 2010; Appendix H) was used to measure individual career interests across three dimensions: *People-Things*, *Data-Ideas*, and *Low-High Prestige*. The Personal Globe Inventory (PGI) captures Tracey and Round’s (1995) octant model of career interests represented by Prediger’s (1992) two-dimensional circumplex (People/Things and Data/Ideas) and the third dimension of prestige (Tracey, 2002). The PGI is comprised of two forms that can be used independently or together to determine

career interests and includes a 108-item list of occupational titles and a 113-item list of activities rated on interest and competence, resulting in 18 spherical scales. The first eight scales represent basic interests – social facilitating, managing, business detail, data processing, mechanical, nature/outdoors, artistic, and helping. Five high prestige interests are social sciences, influence, business systems, financial analysis, and science. Five low prestige interests include quality control, manual work, personal service, construction/repair, and basic services. Tracey and Round's (1992) octant model also corresponds to Holland's RIASEC model and the PGI can be used to calculate both the octant basic interests and Holland's RIASEC codes (Tracey, 2002).

Tracey (2010) modified the original PGI to create the abbreviated 80-item version (PGI-Short) and found that the abbreviated model had the same structural properties as the original PGI and did not differ across gender and ethnicity. The PGI-Short contains 40 activities that are self-rated twice, once for their interest for each activity and then for competence level on each activity, on a 7-point Likert scale from 1 (*Strongly dislike* or *Unable to do*) to 7 (*Strongly like* or *Very competent*). Each of the 10 subscale (social facilitating, managing, business detail, data processing, mechanical, nature/outdoors, artistic, helping, low prestige, and high prestige) contains eight items (four interest items and four corresponding competence items). Items measuring the people-things dimension include “helping children with learning problems” and “write computer program for business”. Items measuring the data-ideas dimension include “analyze survey maps” and “write a play”. Items measuring prestige include “set up social programs” and “carry and load containers”. Scores are calculated to determine the vector of the individual's interests along three dimensions: person-things, data-ideas, and prestige. This 80-item

scale has been shown to have good internal consistency (Cronbach's alphas range was from .88 to .96) and two week test-retest reliability ( $r = .80$ ; Tracey, 2010).

Although the composite scales (interests + competence) have higher internal consistencies (Cronbach's alphas ranged from .88 to .96), interests only scales continued to demonstrate good internal consistencies (Cronbach's alphas ranged from .71 to .86) while retaining the circular structure of the scales (Tracey, 2010). Thus, only interests in activities were included in the current study in order to reduce the time burden for older volunteers. Participants rated how much they liked each of the 40 activities on a 7-point Likert type scale from 1 (*Strongly dislike*) to 7 (*Strongly like*). Eight basic interests subscale (social facilitating, managing, business detail, data processing, mechanical, nature/outdoors, artistic, helping) scores calculated by summing across four items, with possible scores ranging from 4 to 28 with higher scores signifying greater interest. Prestige subscales (low prestige, and high prestige) were not explored as prestige was not of interest in the current study. The internal consistency reliability for the 40-item modified PGI was similar to the findings from Tracey's (2010) evaluation of the PGI-Short. For the current sample, Cronbach's alphas ranged from .71 to .88. A test of the circular model was conducted per the original development of the PGI and the PGI-Short, and the resulting basic interests scales for the current study were found to adhere to the circumplex pattern with a correspondence index of .77 ( $p = .0167$ ) (Tracey, 1997).

***Volunteer activity characteristics.*** An 8-item scale was developed to define the characteristics of volunteer activities. While research in career development has led to the creation of occupational codes, such as the O\*NET database (O\*NET Resource Center, 2016), a database similarly characterizing volunteering activities has not yet been

developed. Moreover, varying definitions of volunteering and type of volunteer organization (Cnaan et al., 1996) make creating standard codes for volunteer activity difficult. Thus, for the current study, characteristics of volunteering activities were based on self-ratings of the amount of time older volunteers spent on activities that matched characteristics of interests scales from the PGI. Participants were asked to complete the Volunteering Experience sheet (See Appendix I) and initially identified the main organization for which they volunteered, the title of the volunteering position, and any primary duties they performed. These items were asked to prime participants' responses when rating the amount of time spent on activities corresponding to the basic eight scales of the PGI. Specifically, participants were asked to respond whether they spent "*None of the time*," "*Some of the time*," "*Most of the time*," or "*All of the time*" for the eight basic items that included "working with others," "various aspects of running a business," "detail and office activities in business," "aspects of managing detail and information," "understanding and working on machinery," "working and being in the outdoors," "creative and expressive activities," and "helping others in a variety of manners." Ratings volunteer activities from the current study did not fit the circumplex pattern with a correspondence index of .31 ( $p = .1500$ ) (Tracey, 1997).

***Calculation of volunteer-activity congruence.*** *Volunteer-activity congruence* was measured using profile correlations or the linear relations between volunteer characteristics and the characteristics of the volunteer activity (Allen & Robbins, 2010). One of the advantages of using profile correlations to determine congruence is that it utilizes all of the available data on interests and activities rather than using only high codes, as does many other measures of P-E fit (Tracey & Robbins, 2006). Moreover,



profile correlations as a measure of congruence do not require the two matching data-sets to adhere to a circular pattern, such as Euclidian distance that measures the distance between two points in dimensional space. Although participants' interests in the current study did fit the circumplex pattern, ratings describing volunteering characteristics did not fit the circular pattern; therefore, Euclidian distance would not yield an accurate measure of congruence. Thus, profile correlations method was used as the best measure of congruence based on the current study characteristics. A simple correlation of volunteers' interests and characteristics of volunteers' activities was calculated and used as a measure of *volunteer-activity congruence*.

**Time Volunteering.** Approaches to capturing the amount of time spent on volunteering activities have varied from recollection of a sum total time spent in previous years (e.g., Li & Ferraro, 2006; Lum & Lightfoot, 2005) to assigning a minimum number of hours as part of the volunteer program (e.g., Barron et al., 2009; Fried et al., 2004). Providing a time frame to minimize declining retrospective accuracy (Garcia & Gustavson, 1997) while remaining flexible to capture variations in volunteer service (Vecina et al., 2012), in the current study participants were asked to identify the total number of hours in the past week they spend volunteering for their primary volunteer organization. This measure of time volunteering was modified from the *Asset Health Dynamics among the Oldest Old* survey (Luoh & Herzog, 2002; See Appendix I for Volunteering Experience sheet).

**Volunteer Satisfaction.** Much of the literature on volunteer satisfaction has relied on single-item questions asking participants their satisfaction with their volunteer experiences (Tang, 2009). In their evaluation of a matched index between the VFI and

how well the volunteer experience fit the functions, Stukas and colleagues (2008) also utilized a single item to determine satisfaction with the volunteer work, using a 7-point scale ranging from 1 (*not at all satisfying*) to 7 (*extremely satisfying*). This single item scale was modified for the current study in that participants were provided a 4-point response scale ranging from 1 (*very dissatisfied*) to 4 (*very satisfied*) in order to remove a neutral response option as well as to include feelings of dissatisfaction as a possible reaction to their volunteer experience. (See Appendix I for Volunteering Experience sheet)

**Volunteer Commitment.** In large-scale cohort studies, whether older adults continue to engage in volunteering activities has primarily been determined by whether they indicate they are still actively volunteering. Stukas and colleagues (2008) determined future intention to volunteer by asking “How likely is it that you will be volunteering for this organization in one year?” and “How likely is it that you will be volunteering for a different organization in one year?” Participants rated their responses on a 7-point scale ranging from 1 (*not at all likely*) to 7 (*extremely likely*). Although these two items indicate intent to continue volunteering regardless of the specific organization, the current study evaluated how volunteer-activity congruence was related to the volunteer’s likelihood of remaining with the current volunteer organization. Thus, a single item asking participants to rate the likelihood of continuing to volunteer was used for the current study. The item was also modified to ask about volunteering at the organization in the future generally rather than a timeframe of one year in the future. Participants responded on a 4-point scale ranging from 1 (*not at all likely*) to 4 (*very*

*likely*) to remain consistent with other questions about their volunteering experience. (See Appendix I for Volunteering Experience sheet).

### **Data Analyses Plan**

**Missing Data.** Missing data analysis was also conducted using SPSS version 24 (IBM Corp, 2016). Because standard statistical methods presume complete information across all variables, strategies to address missing data are critical (Allison, 2002). Schlomer and colleagues (2010) recommended using Little's (1988) MCAR test to identify whether the data are missing completely at random (MCAR), missing at random (MAR), or not missing at random (NMAR). If the pattern of missingness is determined to be MCAR, several missing data substitution strategies can be employed. Conservative methods, such as listwise or pairwise deletion, may limit the power of the analyses if there are a large number of variables or cases missing values and warrant the use of statistical strategies to address the missing data. If there is a small proportion of data missing, Schafer and Graham (2002) noted that using nonstochastic imputation methods, such as mean substitution, would be reasonable as it has minimal negative impact on estimates and uncertainty measures. Stochastic imputation involves degrees of similarity and differences across multiple imputed data sets rather than relying on a single imputed data set to determine the standard error of parameter estimates models and are preferable for data with a larger proportion of data missing (Schlomer et al., 2010).

**Preliminary Analyses.** Preliminary analyses testing the relations among demographic variables, self-rated health, volunteer motivations, volunteer-activity congruence, volunteer satisfaction, and volunteer commitment was conducted. Means, standard deviations, ranges, skew, and kurtosis were calculated for each variable.

Reliability estimates for each of the five subscales on the Volunteer Functional Inventory (Clary et al., 1992; Clary et al., 1998) and for the eight basic interests on the modified Personal Globe Inventory – Short Form (Tracey, 2010) were reported. All preliminary analyses were conducted using the Statistical Package for the Social Sciences (SPSS) Version 24 (IBM Corp, 2016).

**Test of circular structure.** The circular structures of the volunteer basic interests and the volunteer activities were evaluated in order to identify the appropriate measure of congruence for the congruence index. The randomized test of order relations (Hubert & Arabie, 1987) was used to determine the current data fit with Holland's (1997; Tracey & Rounds, 1995) circular model. The circumplex structure assumes that the relations among interest types that are adjacent to each other are stronger as compared to those interest types farther apart, with the weakest relations among opposite types. Volunteer basic interests and volunteer activity scores were transformed to fit Holland's RIASEC codes for interests and activities according to the formulas identified by Tracey (2010; See Appendix H). Correlations among RIASEC interests scales and among RIASEC activities scores were initially calculated using SPSS version 24 (IBM Corp, 2016). These correlations were then entered into the RANDALL software (Tracey, 1997), yielding a correspondence index (CI) to determine the fit of the data to the hypothesized ordering of relations. Tracey (1997) explained that CI values of +1 indicate a perfect fit, whereas a CI value of -1 indicate the absence of fit.

**Hierarchical multiple linear regressions.** Hierarchical multiple linear regressions were conducted to analyze the relations between the independent variables of sociodemographic predictors, time volunteering, volunteer motivations, and volunteer-

activity congruence and the dependent variable of volunteer satisfaction. A separate hierarchical regression was conducted to analyze the relations between the independent variables of sociodemographic predictors, time volunteering, volunteer motivations, and volunteer-activity congruence and the dependent variable of volunteer commitment. Categorical demographic variables, such as sex, marriage, education, and employment status, were dummy coded before being included in the regression equations. The remaining demographic variables, such as age and self-rated health, were noted to be continuous and no modifications were made prior to their inclusion in the analyses.

***Tests of assumptions.*** Three evaluations of the assumptions of regression analysis were conducted. First, analysis of the accuracy of data collected was done by reviewing the means, standard deviations, ranges, and frequency distributions to determine notable outliers. In addition to pre-analysis screening for outliers, Tabachnick and Fidell (2007) described testing for multivariate outliers among independent variables by using statistical methods such as Mahalanobis Distance or by using graphical methods. Using SPSS version 24, Mahalanobis Distances were calculated and compared to the critical value of chi-square to determine whether any cases were identified as extreme outliers. Second, skewness and kurtosis were calculated to evaluate whether assumptions of normality were met, that is values should fall between +1 and -1 to show distribution of the data (Tabachnick & Fidell, 2007). Additionally, tests for normality, linearity, and homoscedasticity were conducted by examining residual scatter plots between predicted dependent variable scores and the errors of prediction. Based on the severity of skewness, transformations were conducted following Tabachnick and Fidell's recommendations. Third, multicollinearity and singularity were evaluated as highly

correlated independent variables will not demonstrate the unique contribution of each variable predicting the dependent variable and will limit the probabilities of obtaining statistically significant findings (Wampold & Freund, 1987). Tolerance and Variance Inflation Functions (VIF) were calculated to test for multicollinearity using SPSS version 24, with tolerance scores approaching zero and VIF scores exceeding 10 as indicative of the likely presence of multicollinearity (O'Brien, 2007). As constructs included items independent of each other, the likelihood of problems with singularity are low; however, singularity was also assessed using correlations among predictor variables (Tabachnik & Fidell, 2007).

***Regression analyses.*** First, a series of correlations and hierarchical multiple regressions were conducted to test the following hypotheses: H1) More time spent volunteering will be related to greater volunteer satisfaction. H2) Higher endorsement of volunteer motivations (social, values, understanding, protective and enhancement functions) will be related to greater volunteer satisfaction. H3) Stronger volunteer-activity congruence will be related to greater volunteer satisfaction. H4) Volunteer-activity congruence will contribute to volunteer satisfaction above and beyond the linear combination of time spent volunteer and volunteer motivations.

Second, a series of correlations and hierarchical multiple regressions were conducted to test the following hypotheses: H5) Greater volunteer satisfaction will be related to increased likelihood to commit to volunteering in the future. H6) Higher endorsement of volunteer motivations (social, values, understanding, protective and enhancement functions) will be related to increased likelihood to commit to volunteering in the future. H7) Stronger volunteer-activity congruence will be related to increased

likelihood to commit to volunteering in the future. H8) Volunteer-activity congruence will contribute to volunteer commitment above and beyond the linear combination of volunteer satisfaction and volunteer motivations.

## CHAPTER 4

### RESULTS

#### **Preliminary Analyses**

**Missing data.** Analyses for missingness was conducted using SPSS version 24, (IBM Corp, 2016). A series of  $\chi^2$  test of association and independent sample *t*-tests were conducted to compare individuals who did and did not completed the survey. Those who completed the survey were more likely to have a college degree than non-completers,  $\chi^2(1, N = 200) = 25.36, p < .001$ . Completers ( $M = 3.20, SD = 1.27$ ) were also more likely to express satisfaction with their volunteering experience than were those who did not complete the survey ( $M = 2.33, SD = 1.37$ ),  $t(183) = 2.01, p = .046$ . No other differences between completers and non-completers were noted.

Among participants who completed the survey, missing data ranged from a low of 0% on PGI subscales to a high of 7.1% on the *social function* subscale. Seventy-eight (45.88%) cases and 60 (71.43%) variables had incomplete data; however, a very small proportion (1.10%) of the total data set was missing. Results from Little's MCAR test revealed no pattern to the missing data,  $\chi^2(5087, N = 170) = 4602.58, p = 1.00$ . Because the pattern of missingness was determined to be MCAR and only a small proportion of the data was missing, grand mean imputation procedures were used on each measure.

**Volunteering characteristics.** Participants in the current study reported volunteering for a variety of organizations. Nearly one-quarter ( $n = 40$ ; 24.1%) of respondents reported volunteering for Habitat for Humanity and another 21% ( $n = 35$ ) reported volunteering activities aimed at helping seniors (e.g., driving, light housekeeping, or providing information at senior community center) or those living in



senior living institutions (e.g., nursing homes, assisted living facilities, or independent living facilities). Twelve percent ( $n = 20$ ) of the volunteers reported working with children as tutors or assisting in the classroom. The remaining participants ( $n = 71$ ; 42.9%) volunteered in several different areas, including hospitals ( $n = 6$ ; 3.6%), churches or other religious organizations ( $n = 5$ ; 3.0%), and local libraries ( $n = 4$ ; 2.4%). In addition, 26 (15.5%) participants described their position as being a president, board member, or manager within their volunteer organization. The number of volunteer hours ranged from 0 to 36 hours per week ( $M = 9.68$ ,  $SD = 8.28$ ) for the organization, with the majority of participants ( $n = 88$ ; 51.8%) volunteering for one hour per day or less.

**Comparison between working and non-working volunteers.** Although recruitment was aimed at individuals who had retired, 30 (18.0%) respondents reported engaging in paid employment at the time of the survey. As current employment may not preclude having retired previously, those who indicated that they were employed were not initially excluded from this study. A series of  $\chi^2$  test of association and independent sample  $t$ -tests were conducted to compare individuals who reported currently being employed and those who did not. Individuals who reported being currently employed were generally younger than their non-employed counterparts,  $t(165) = -6.83$ ,  $p < .001$ . Employed respondents also reported fewer hours of volunteering per week than did those who were not currently employed,  $t(57.21) = -2.20$ ,  $p = .03$ . Individuals currently employed expressed greater interests in data processing,  $t(165) = 2.16$ ,  $p = .03$  and mechanical,  $t(37.36) = 2.78$ ,  $p = .009$ , domains than did those who were not employed. Employed individuals also reported more time spent on nature/outdoor,  $t(165) = 3.09$ ,  $p =$

.002, types of activities as part of their volunteering experiencing compared to those who are not employed. No differences, however, were noted in the overall volunteer-activity congruence scores,  $t(162) = -0.18, p = .86$ . Employed participants expressed stronger motivations based on understanding functions, or the desire to seek new experiences and apply existing knowledge and skills, than did those who were not employed,  $t(83.59) = 3.04, p = .003$ . No other differences were noted. For additional comparisons by employment status, please see Table 2 in Appendix E.

**Test of circular structure and profile correlation calculations.** In order to calculate the circular structure of volunteer interests and activities ratings, scaled scores from the modified 40-item PGI were converted to Holland's RIASEC codes using scoring templates provided by Tracey (2010; see Appendix H). Bivariate correlations among volunteer interests subscales revealed that all the subscales were positively related to each other ( $ps < .01$ ) except between the Realistic and the Social scales ( $p = n.s.$ ). See Table 3 for the volunteer interests scales correlations matrix. Bivariate correlations among volunteer activities scores revealed that the Investigative scale was positively related to the Realistic scale and the Social scale ( $ps < .01$ ). The Conventional scale was positively associated with the Artistic scale and the Enterprising Scale ( $ps < .01$ ). The Social scale was also positively related to the Enterprising scale ( $p < .01$ ). See Table 4 for the volunteer activities scores correlations matrix.

Results from these correlation matrices were entered into the RANDALL software (Tracey, 1997) to test for circular structure. Relations among volunteer interests scales demonstrated adherence to a circular pattern with a correspondence index ( $CI$ ) of

Table 3

*Correlations Among Volunteer Interests – Holland’s Scales (N = 167)*

Variables	M (SD)	1	2	3	4	5	6
1. Realistic	9.67 (5.96)	1.00					
2. Investigative	11.65 (6.23)	.46**	1.00				
3. Artistic	9.73 (5.76)	.30**	.59**	1.00			
4. Social	12.32 (4.82)	.12	.48**	.56**	1.00		
5. Enterprising	11.00 (4.90)	.32**	.48**	.39**	.66**	1.00	
6. Conventional	9.41 (5.10)	.60**	.51**	.30**	.30**	.61**	1.00

\*\*  $p < .01$ 

.77,  $p = .0167$ , indicating that 83% of the predictions were met in the data set whereas 17% of predictions were violated. Ratings among volunteer activities, however, was not as good of a fit to the circumplex structure in which 65% of the predictions were met in the data set but 35% of the predictions were violated,  $CI = .31$ ,  $p = .1500$ . Because the correlation matrix of volunteer activities was not a good fit for circular structure, profile correlations between volunteer interests and volunteer activities were calculated to determine congruence ( $M = .24$ ,  $SD = .44$ ). Almost half (45.5%) of the participants reported a moderate to strong positive relation ( $r$ s ranging from 0.30 to 0.96) between volunteer interests and the amount of time they spend on activities that correspond with those interests. A smaller proportion (12.6%) of participants reported a moderate to strong negative relation ( $r$ s ranging from  $-0.30$  to  $-0.85$ ) between interests and activities. For frequencies of profile correlations scores see Table 5 in Appendix E.

Table 4

*Correlations Among Volunteer Activities – Holland's Scales (N = 170)*

Variables	M (SD)	1	2	3	4	5	6
1. Realistic	1.44 (.67)	1.00					
2. Investigative	1.82 (.97)	.34**	1.00				
3. Artistic	1.94 (.86)	.12	.03	1.00			
4. Social	3.01 (.80)	-.01	.18*	.01	1.00		
5. Enterprising	2.02 (.56)	.08	.08	.10	.40**	1.00	
6. Conventional	1.78 (.78)	.09	.04	.22**	.14	.36**	1.00

\*  $p < .05$ , \*\*  $p < .01$

**Tests of assumptions.** Three assumptions associated with multiple regressions analysis were examined. First, initial review of the data (e.g., mean, standard deviation, range, and frequency) identified three outliers for the amount of time volunteering, exceeding three standard deviations from the mean. These cases were excluded from the study analyses. No other outliers were noted in the pre-screening process. Additionally, calculations of Mahalanobis Distances did not exceed the critical value  $\chi^2 = 32.909$ ,  $df = 12$ ,  $p < .001$ ; therefore, no multivariate outliers were identified.

Second, tests of skewness and kurtosis indicated four independent variables scales (time volunteering, social function, values function, and protective function) exceeded the acceptable values for skewness and kurtosis; therefore, corrections were made using transformation methods. For additional details, please see Table 6 in Appendix E. A review of residual scatter plots between each predicted dependent variable scores and the

errors of prediction was then conducted, and the relation between predictor variables and outcome variables was noted to be linear and did not violate assumptions of normality and heteroscedasticity. See Figure 1 and Figure 2 for scatterplots in Appendix E.

Finally, review of collinearity statistics was conducted. Tolerance scores (ranged from .522 to .947) and Variance Inflation Factor (VIF) scores (ranged from 1.056 to 1.915) indicated that assumptions of multicollinearity were not violated. In addition, review of correlations among independent variable did not reveal problems of singularity. Following the transformation of scales, it was determined that the necessary assumptions needed for hierarchical regression were met.

### **Research Question 1: Volunteer Satisfaction**

The first research question asked about the relations among time volunteering, volunteer motivations, and volunteer satisfaction. It was hypothesized that there was a possible linear relationship between amount of time volunteering and volunteer satisfaction (H1), between volunteer motivations and volunteer satisfaction (H2), between volunteer-activity congruence and volunteer satisfaction (H3), and the possible contribution of volunteer-activity congruence over and above the linear combination of time volunteering and volunteer motivations (H4). Examination of the bivariate relations among time volunteering, volunteer motivations, volunteer-activity congruence, and volunteer satisfaction revealed no significant relations between age and volunteer satisfaction, self-reported health and volunteer satisfaction, time volunteering and volunteer satisfaction or among volunteer functional motivations and volunteer satisfaction were found,  $ps > .05$ . In addition, volunteer-activity congruence did not

correlate with ratings of volunteer satisfaction,  $r = -.02, p > .05$ . For additional details from the bivariate correlations see Table 7. Differences in ratings of volunteer satisfaction, however, were noted between men ( $M = 2.84; SD = 1.35$ ) and female ( $M = 3.30; SD = 1.16$ ) participants,  $t(147.45) = -2.32, p = .02$ . No other differences in ratings of volunteer satisfaction were noted based on marital education, or employment status,  $ps > .05$ . For additional details from  $t$ -tests comparisons see Table 8. Although the absence of correlations among the study variables suggests the lack of relations predictive of volunteer satisfaction (Cohen, Cohen, West, & Aiken, 2003), a hierarchical regression was conducted to examine whether the linear combination of the theorized variables contributed to the variance in volunteer satisfaction. Variables were entered in steps based on the study hypotheses. Step 1 contained sociodemographic covariates (age, sex, marital status, education, employment status, and self-rated health). Step 2 included the variable for amount of time volunteering. Variables measuring volunteer motivations (social function, values function, understanding function, protective function, and enhancement function) were included in Step 3. Volunteer-activity congruence scores were added in Step 4. In Step 1 of the hierarchical multiple regression analysis, sociodemographic covariates accounted for 4.6% of the variance in volunteer satisfaction, ( $\Delta R^2 = .046, p > .05$ ). Although the linear combination of sociodemographic variables did not significantly predict volunteer satisfaction, females were more likely to report volunteer satisfaction than were men ( $\beta = 0.21, t = 2.35, p < .05$ ). In Step 2, the addition of amount of time volunteering did not significantly add to the model predicting volunteer satisfaction, ( $\Delta R^2 = .002, p > .05$ ), above and beyond the sociodemographic

Table 7

*Correlations Among Continuous Model Variables (N = 167)*

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Volunteer Satisfaction	3.08	1.27	1.00										
2. Volunteer Commitment	3.55	0.75	.11	1.00									
3. Volunteer Hours	9.68	8.28	.06	.02	1.00								
4. Age	68.80	9.34	-.04	-.01	-.01	1.00							
5. Self-rated health	3.91	0.89	.09	.06	-.02	-.11	1.00						
6. Social function	15.94	8.60	.07	.15	-.07	.11	.10	1.00					
7. Values function	29.58	5.96	-.03	.28**	.23**	-.17*	.13	.24**	1.00				
8. Understanding function	26.19	7.42	.07	.19*	.10	-.26**	.05	.29**	.47**	1.00			
9. Protective function	11.38	6.83	-.06	.13	.11	-.11	-.11	.14	.16*	.25**	1.00		
10. Enhancement function	19.77	7.73	-.04	.08	.08	-.06	-.11	.21**	.21*	.39**	.46**	1.00	
11. Volunteer-Activity Congruence	0.24	0.44	-.02	.06	.01	-.07	-.08	.15	.02	.12	0.07	.15*	1.00

Note: \*  $p < .05$ . \*\*  $p < .01$ .

Table 8

*Results of t-test and Descriptive Statistics for Volunteer Satisfaction and Volunteer Commitment by Gender, Marital Status, Education, and Employment Status (N = 167)*

Variables	n	Volunteer Satisfaction					Volunteer Commitment				
		M	SD	95%CI	t	df	M	SD	95%CI	t	df
Male	75	2.84	1.34	-0.85	-2.32**	147	3.44	0.81	-0.45	-1.82*	146
Female	90	3.30	1.16				3.65	0.69			
Not Married <sup>a</sup>	60	3.20	1.25	-0.22	0.87	165	3.65	0.84	-0.09	1.20	165
Married <sup>b</sup>	107	3.02	1.29								
Associates degree or less <sup>c</sup>	50	3.10	1.30	-0.40	0.10	165	3.58	0.75	-0.21	0.26	165
Bachelor's degree or higher <sup>d</sup>	117	3.07	1.27				3.55	0.75			
Employed <sup>e</sup>	30	3.13	1.28	-0.44	0.23	165	3.57	0.77	-0.29	0.08	165
Not employed <sup>f</sup>	137	3.07	1.27				3.55	0.75			

Notes: <sup>a</sup>Not Married included individuals who were never married, widowed, divorced, or separate.

<sup>b</sup>Married included individuals who were married, in domestic partnership or civil union, or single but cohabitating with a partner

<sup>c</sup>Associates degree or less included individuals with Associated degree, some college but no degree, and high school graduate or equivalent.

<sup>d</sup>Bachelor's degree or higher included individuals who completed a Bachelor's or graduate degree

<sup>e</sup>Employed included individuals who were currently engaged in part-time or full-time paid employment.

<sup>f</sup>Not Employed included individuals who were retired, disabled but not able to work, not employed and not looking for work, and not employed but looking for work.

\*  $p < .10$ . \*\*  $p < .05$ .



covariates. Gender remained a significant predictor ( $\beta = 0.21, t = 2.53, p < .05$ ), but amount of time volunteering was not a significant predictor ( $\beta = .05, t = 0.60, p > .05$ ). The results of Step 2 did not support the hypothesis that there was a linear relation between the amount of time and volunteer satisfaction. In Step 3, volunteer motivations also did not contribute significantly to the model predicting volunteering satisfaction. The linear combination of volunteer motivations contributed 3.5% of the variance to the model, ( $\Delta R^2 = .035, p > .05$ ). Gender continued to remain a significant predictor ( $\beta = 0.23, t = 2.53, p < .05$ ); however, time volunteering ( $\beta = .010, t = 1.15, p > .05$ ); however, social function ( $\beta = 0.14, t = 1.60, p > .05$ ), values function ( $\beta = -0.13, t = -1.40, p > .05$ ), understanding function ( $\beta = 0.05, t = 0.47, p > .05$ ), protective function ( $\beta = -0.09, t = -0.95, p > .05$ ), and enhancement function ( $\beta = -0.06, t = -0.60, p > .05$ ) did not significantly predict volunteer satisfaction. The results from this model do not support the hypothesis that higher ratings on volunteer motivations would predict volunteer satisfaction. Finally, volunteer-activity congruence, added in Step 4, did not add a significant increment in predicting volunteer satisfaction, ( $\Delta R^2 = .008, p > .05$ ). Although the full model did not significantly predict volunteer satisfaction,  $F(13, 148) = 1.20, p = .28$ , gender continued to be a significant predictor of volunteer satisfaction ( $\beta = .026, t = 2.76, p < .01$ ) and social functions approached significance, ( $\beta = 0.16, t = 1.77, p = .079$ ). The hierarchical regression analysis did not support the hypotheses regarding the linear relations among predictor variables (time volunteering, volunteering motives, and volunteer-activity congruence) and volunteer satisfaction. In addition, the results did not support the hypothesis that volunteer-activity congruence would contribute over and above the linear combination of time volunteering and volunteer motivations in

predicting volunteer satisfaction. See Table 9 in Appendix E for additional details from the hierarchical regression analysis.

## **Research Question 2: Volunteer Commitment**

The second research question asked about the relations among volunteer satisfaction, volunteer motivations, and volunteer commitment. It was hypothesized that there was a possible linear relationship between amount volunteer satisfaction and volunteer commitment (H5), between volunteer motivations and volunteer commitment (H6), between volunteer-activity congruence and volunteer commitment (H7), and the possible contribution of volunteer-activity congruence over and above the linear combination of volunteer satisfaction and volunteer motivations (H8). Examination of the bivariate relations among volunteer satisfaction, volunteer motivations, volunteer-activity congruence, and volunteer satisfaction revealed no significant relation between volunteer satisfaction and volunteer commitment, ( $r = .107, p > .05$ ). The analyses of volunteer motivations and volunteer commitment revealed significant relations between values function and commitment ( $r = .283, p < .001$ ) and between understanding functions and commitment ( $r = .191, p < .01$ ). No other volunteer motivations (social, protective, and enhancement functions) were significantly related to volunteer commitment,  $ps > .05$ . Furthermore, volunteer-activity congruence was not significantly related to volunteer commitment,  $r = -.02, p > .80$ . No other differences in ratings of volunteer commitment were noted based on marital education, or employment status,  $ps > .05$ ; however, there was a trend in the differences between men ( $M = 3.44; SD = 0.81$ ) and women ( $M = 3.65; SD = 0.69$ ) in volunteer commitment ratings,  $t(146.14) = -1.82, p = .07$ .

Although the values function and understanding function were the only variables that met the criteria for inclusion in the hierarchical regression based the Cohen and colleague's (2003) recommendations, the complete model was included in the hierarchical regression analysis to examine the additional contribution of theorized variables in predicting volunteer commitment. Variables were entered in steps based on the study hypotheses. Step 1 contained sociodemographic covariates (age, sex, marital status, education, employment status, and self-rated health). Step 2 included the variable for volunteer satisfaction. Variables measuring volunteer motivations (social function, values function, understanding function, protective function, and enhancement function) were included in Step 3. Volunteer-activity congruence scores were added in Step 4.

Sociodemographic covariates were entered in Step 1 of the hierarchical multiple regression analysis and accounted for 3.1% of the variance in volunteer commitment ( $\Delta R^2 = .031, p > .05$ ). Moreover, no individual sociodemographic covariate was significant in predicting volunteer commitment,  $ps > .05$ . In Step 2, volunteer satisfaction did not significantly add incrementally to the model predicting volunteer commitment, ( $\Delta R^2 = .004, p > .05$ ), above and beyond sociodemographic covariates. The results of Step 2 did not support the hypothesis that there was a linear relation between volunteer satisfaction and volunteer commitment. In Step 3, volunteer motivations did add a significant increment in predicting volunteer commitment, ( $\Delta R^2 = .095, p < .01$ ). Values function of volunteer motivation was found to be a significant predictor ( $\beta = 0.26, t = 2.84, p < .01$ ) of volunteer commitment; however, volunteer satisfaction ( $\beta = .08, t = 1.10, p > .05$ ) and the remaining volunteer motivation variables (social function, understanding function, protective function, and enhancement function) did not

significantly predict volunteer commitment,  $ps > .05$ . The results present inconsistent findings about volunteer motivations and their relations with volunteer commitment. While the linear combination of volunteer motivations did predict volunteer commitment, the values function of motivation was the primary contributor to the significant findings. In Step 4, volunteer-activity congruence was added to the model. The results indicated that volunteer-activity congruence did not significantly add to the model predicting volunteer commitment, ( $\Delta R^2 = .000, p > .05$ ). The full model did not significantly predict volunteer commitment,  $F(13, 148) = 1.71, p > .05$ ; however, the full model did account for 13.1% of the overall variance. Moreover, value functions remained a significant predictor of volunteer commitment ( $\beta = 0.26, t = 2.84, p < .01$ ). The hierarchical regression analysis did not support the hypotheses regarding the linear relation between volunteer satisfaction and volunteer commitment. The analysis did support the linear relation between volunteer motivations and volunteer commitment, with values function accounting for the significant relation. The analysis did not support a linear relation between volunteer-activity congruence and volunteer satisfaction and did not support the hypothesis that volunteer-activity congruence would contribute over and above the linear combination of volunteer satisfaction and volunteer motivations in predicting volunteer commitment. See Table 10 in Appendix E for additional details from the hierarchical regression analysis.

## CHAPTER 5

### DISCUSSION

#### **Summary of the Study**

The anticipated tsunami of older adults in America has led to calls for strategies to promote productive engagement in later life (AoA, 2015; Rowe & Kahn, 1998; WHCOA, 2015). Because increased longevity elevates risk for physical health problems, functional health difficulties, and cognitive decline, as well as reduction in psychosocial resources, the need to engage older adults in productive activities that mitigate age-associated losses is essential to ensuring a healthy and successfully aging populace (FIFARS, 2016; Rowe & Kahn, 1998). Volunteering has been demonstrated to be the type of productive activity that reduces risk for developing physical health problems, functional limitations, cognitive decline, and psychosocial problems in later life (Hong et al., 2009). Despite significant benefits to both the volunteer and to the greater society (Burr et al., 2011; CNCS, 2016; Morrow et al., 2009), volunteer participation remains low among older adults, with rates lower than for any other age group (BLS, 2016). Late-midlife and older adults often have qualities that charitable organizations seek, such as experience and daytime availability (Brudney & Hager, 2004); however, challenges with recruitment and retention plague their efforts in maximizing the utilization of aging volunteers (Butricia et al., 2007; Foster-Bey et al., 2007; Williams, 2012).

Attempts to improve volunteer engagement in later life have focused on identifying characteristics of the aging volunteer and motivations for volunteering. Older volunteers tend to be younger, healthier, have fewer functional limitations, be more educated, and tend to be engaged in other productive activities compared to their non-

volunteering counterparts (Butrica et al., 2007; Saxon-Harrold et al., 2000; Zedlweski & Schaner, 2006). As these sociodemographic characteristics tend to be somewhat immutable to interventions, additional investigations into potential opportunities for intervention are needed to realize the goal of employing volunteering as a viable substitute for prior productive activities. A second focus, then, in research on volunteerism in later life has been to explore volunteer motivations. While much has been explored regarding the multidimensional characteristics of motivation to volunteer (Clary et al., 1996; 1998), no intervention has been developed as of yet. This is likely due to the challenges of inconsistent research findings on the relations between volunteer motivations and volunteer behavior (e.g., satisfaction and commitment). Problematic of many of these studies is that they fail to account for age-related influences on volunteer motivations.

While it is important to recognize external barriers to volunteering that emerge with age (e.g., physical health decline or functional limitations), addressing motivational changes that come with age is also necessary when conceptualizing the older volunteer. Declines in later life often require adjustments to goal direction and the use of compensatory strategies in order to achieve those goals (Baltes, 1997; Baltes et al., 1999). The motivational theory of lifespan development identifies how goal adjustment and compensatory strategies are employed in later years (Heckhausen et al., 2010). With age, motivation is aimed primarily at maintaining one's capacity to reach important goals. Yet the impact of aging may necessitate altering one's view of the self in order to maintain as much control as possible. For example, many in retirement experience role loss due to the absence of regular productive engagement, leaving a void full of unmet

needs (Berger et al, 2005; Cornell et al., 2011; Ekerdt, 1986). Indeed, previous research on volunteer motivations has failed to account for such changes, ignoring the importance of career interests and motivations among older volunteers (Okun et al., 2014; Stukas et al., 2009).

The aim of the current study was to incorporate career interests in understanding volunteerism among late-midlife and older volunteers. While volunteering has been theorized as a sufficient compensatory activity for paid employment, establishing the relations between career interests and volunteer activities may provide additional evidence regarding the value of volunteering in later years. Utilizing established measures of career interests, the present study was designed to assess whether the match between career interests and volunteer activity contributed to volunteer satisfaction and volunteer commitment for late-midlife and older adults.

### **Volunteer Participant Characteristics**

Participant characteristics for the current study were fairly consistent with samples from previous research regarding sociodemographic characteristics of older volunteers. Similar to older volunteers in large-scale longitudinal studies (e.g., Asset and Health Dynamics among the Oldest Old and Health and Retirement Study; Zedlweski & Schaner, 2006; Choi, 2003), volunteers from the current study were primarily in the young-old age group (65 to 80 years old), reported high education levels, and endorsed high levels of self-rated health. Moreover, almost one in every five participants in the current study engaged in some type of paid employment. In addition, participants who were not employed reported a greater number of weekly volunteer hours than did those who engaged in paid employment. This seems to confirm the belief that older volunteers

who are not employed may have more time available to commit to volunteering at charitable organizations, making them a cost effective volunteering investment (Brudney & Hager, 2004). Interestingly, study participants tended to spend more time volunteering compared to the national average and relative to findings from large-scale, longitudinal studies (Lum & Lightfoot, 2005). The Bureau of Labor Statistics (2016) found that late-midlife and older adults volunteered approximately one to three hours per week in 2015, whereas volunteers from the AHEAD study spent approximately five to six hours volunteering per week (Lum & Lightfoot, 2005). Although the number of hours volunteering in the current study more closely resembled samples from large-scale surveys than national surveys, study participants reported a substantially greater amount of time volunteering, spending almost 10 hours per week volunteering. Although participant characteristics generally demonstrated consistency with sociodemographic findings from previous research on volunteering among older adults (Choi, 2003; Zedlweski & Schaner, 2006), volunteers from the current study devoted more time to their volunteer experience than was previously reported.

Evaluations of career interests among the current study's participants were also consistent with findings that suggest career personality and types remain relatively stable in later years (Costa et al., 1984; Greller, 2006). While previous findings have established career interest structures among younger populations (Tracey, 2002; Tracey & Rounds, 1995), findings from the current study indicated that the circular structure of career personality and types is also applicable for older populations. Moreover, preliminary analyses demonstrated the utility of the Personal Globe Inventory (PGI; Tracey, 2002; 2010) in the assessment of career interests among late-midlife and older



adults. Thus, equipped with valid instruments measuring career interests for older populations, future investigations may further explore career-related needs in later life.

### **Research Questions and Conclusions**

**Predictors of volunteer satisfaction.** One of the primary goals of the current study was to explore contributing factors to volunteer satisfaction. Research question 1 stated: What are the relations among amount of time volunteering, volunteer motivations, volunteer-activity congruence, and volunteer satisfaction? A series of bivariate correlations and a four step-hierarchical regression analysis were conducted to test the hypotheses that the linear combination of the amount of time volunteering, volunteer motivations, and volunteer-activity congruence would predict satisfaction with the volunteer experience. Moreover, it was posited that volunteer-activity congruence, as a measure of fit between career interests and volunteer activity, would contribute to volunteer satisfaction above and beyond known predictors of volunteer satisfaction (e.g., time volunteering and volunteer motivations) for late-midlife and older volunteers.

The preliminary analyses revealed that predictor variables of time volunteering, volunteer motivations, and volunteer-activity congruence were not related to ratings of volunteer satisfaction. The full regression model did not significantly predict volunteer satisfaction. Therefore, the null hypothesis could not be rejected.

In contrast to previous findings (Pauline, 2011; Penner & Finkelstein, 1998; Wong et al., 2011), the amount of time spent volunteering was not related to ratings of satisfaction with participants' volunteer experience in the current study. One possible explanation may due to differences in the design of questions elucidating the amount of time spent on volunteer activities. Study participants were asked to recall their time spent

volunteering (within the past week) which differed from the time frame in previous studies that ranged from a single four-day Professional Golf Association (PGA) event (Pauline, 2011) to a total amount of time spent volunteering within the previous 12 months (Penner & Finkelstein, 1998; Wong et al., 2011). These differences may lead to what Garcia and Gustavason (1997) described as memory distortions based on rounding errors that occur when recalling temporal frequencies of behavior. For volunteers at a specific event (e.g., PGA event), participants are asked to recall their activity levels within a small interval of time and may have less difficulty remembering how many hours were spent volunteering because of the specificity of the event. In contrast, recollections of time volunteering in the past year are more likely to be based on estimations that may be more susceptible to rounding errors. While the one-week time frame was selected to minimize temporal distortions in the current study, it is possible that study participants were either recalling the time spent from the previous week or estimating an average amount of time spent weekly. These difference, then, may conflate different time variables, accounting for the lack of significant relations between time volunteering and satisfaction.

Also inconsistent with prior investigations (e.g., Bang et al., 2012; Clary et al., 1998; Finkelstein, 2008), neither altruistic motivations nor self-oriented motivations volunteer was related to volunteer satisfaction, with only social functions approaching significance as a predictor of volunteer satisfaction. Because volunteer satisfaction was measured with a single-item question, potential measurement problems may account for the lack of significant findings regarding volunteer satisfaction. Discussions regarding reliability issues are further explored in the limitation section below. Another

explanation for the insignificant findings may be related to the construct of volunteer satisfaction itself. In his review of literature on job satisfaction, Weiss (2002) noted that researchers often conflate affective response to the job, attitudes about the job, and beliefs on job behavior when they measure job satisfaction. Weiss suggested that evaluation was a key aspect of job satisfaction, making it more in line with an attitude rather than an affective response or belief about job behavior. If volunteer experiences share many of the characteristics of work experiences (Callow, 2004), assessments of volunteer satisfaction may also encounter similar problems. Moreover, Galindo-Kuhn and Guzley (2002) noted that volunteer satisfaction may be better understood as an evaluation of multiple components, such as organizational support, participation efficacy, empowerment, and group integration. Thus, study participants may have interpreted the single-item measure of volunteer satisfaction to include factors outside of volunteer job evaluation (e.g., affect or beliefs) or be focused on a particular element (e.g., organizational support, participant efficacy, empowerment, or group integration) rather than a general assessment of satisfaction, introducing additional problems with reliability and validity of the measure. Thus, problems assessing volunteer job satisfaction may contribute to the absence of findings in the current study, as well as explain inconsistent findings from previous studies about volunteer motivations and job satisfaction (e.g., Boezeman & Ellemers, 2009; Finkelstein, 2008; Stukas et al., 2009; Vecina et al., 2011).

Finally, volunteer-activity congruence, which measures the relations between career interests of the volunteer and the characteristics of the volunteer activity, did not significantly contribute to volunteer satisfaction above and beyond known predictors of volunteer satisfaction. Although career-related interests remain stable in later years

(Costa et al, 1984; Greller, 2006), the absence of significant findings regarding the contribution of volunteer-activity congruence to satisfaction may be due Tsabari et al.'s (2005) conclusions that there is a possible moderating effect of age on the relations between person-activity congruence and satisfaction. Because recruitment was limited to late-midlife and older adults, the age of participants in the current study participants may explain the lack of relations between congruence and satisfaction. Seltzer and Yahirun (2013) described aging in America as an experience marked by “unparalleled diversity” (p. 1). Rather than one homogenous group, older adults are more likely to experience greater diversity in characteristics compared to younger cohorts. The effects of normative, historical, and non-normative life events, as outlined in the motivational theory of lifespan development, result in greater diversity of interests, abilities, motivations, and resources in later life (Baltes, 1997; Baltes et al., 1999; Heckhausen et al., 2010). Thus, older cohorts have less in common with each other than do younger cohorts. As a result, relations that may be important for younger groups (e.g., congruence and satisfaction) may have less valence in later life.

While not posited as a hypothesis in the current study, the results did indicate a significant relation between gender and volunteer satisfaction but not between other sociodemographic variables and satisfaction. While age, education, and health status, as well as engaging in other productive activities such as paid employment, have been previously noted to be related to volunteering (Choi, 2003; Foster-Bey et al., 2007; Zedlewski & Schaner, 2006), gender has not been a notable predictor of volunteering behavior. In the current study, however, female volunteers reported greater satisfaction with their volunteering than did male volunteers. While previous studies on volunteering

may not provide an explanation for these difference, empirical research regarding social support and social network composition among older adults may provide some insight to understanding gender differences in the current study (Antonucci & Akiyama, 1987; Pinquart, 2003; Pinquart & Sorensen, 2001). Gender differences in social support and social networks have been noted among older adults. Older women tend to have larger social networks than did older men (Pinquart, 2003). Moreover, older men primarily rely on spouses as their social support, whereas older women tend to rely on extended networks, such as children and friends, for their social support (Antonucci & Akiyama, 1987; Pinquart & Sorensen, 2001). Volunteering, therefore, may serve as an additional avenue for older females to cultivate their social support and social networks, resulting in a more satisfying experience because of this added benefit. While the current study did not investigate the role of social support and social networks, results indicating gender differences in volunteer satisfaction highlight an important domain to consider in future explorations of volunteerism in later life.

**Predictors of volunteer commitment.** A second focus of the current study was to investigate characteristics that would lead to greater likelihood that volunteers continue with their volunteering activities in the future. Research question 2 asked: What are the relations among amount of time volunteering, volunteer motivation, volunteer-activity congruence, and future volunteer commitment? A series of bivariate correlations and a four-step hierarchical regression analysis were conducted to test the following hypotheses that the linear combination of volunteer satisfaction, volunteer motivations, and volunteer-activity congruence would predict intent to commit to volunteering in the future. Furthermore, it was hypothesized that volunteer-activity congruence would

contribute to volunteer commitment above and beyond volunteer satisfaction and volunteer motivations variables.

No significant relations between volunteer satisfaction and volunteer commitment were found. Preliminary analyses did reveal significant relations between the altruistic values function and volunteer commitment, as well as between understanding the understanding function and intent to volunteer in the future. Moreover, the values function was also found to be a significant predictor of volunteer commitment. The relation between volunteer-activity congruence and volunteer commitment, however, was not significant. In contrast to the findings regarding volunteer satisfaction, however, the full model in the regression analysis did significantly predict volunteer commitment.

Unlike some previous research that noted a relation between volunteer satisfaction and volunteer commitment (Boezeman & Ellemers, 2009; Chacon et al., 2007), results from the current study did not support the relation between volunteer satisfaction and intention to commit to volunteering in the future. The absence of relation between volunteer satisfaction and commitment may be due to variability in the unique experiences of different types of volunteer work (e.g., providing religious services, leading or managing nonprofits, or providing direct services; Grønbjerg & Never, 2004). Volunteers for the current study were recruited among a variety of different funding sources, such as government funded programs (e.g., Senior Corps, city information center) and private non-profit programs (e.g., Habitat for Humanity, Kiwanis Club). In addition, the relationship with the beneficiary also varied with some volunteering have little affiliation with the people they help (e.g., Senior Corps) while other volunteering opportunities occurring in the very community in which one live (e.g., continuous care

community). In contrast to previous studies whose participants were more likely to be narrowly focused either by organization or interest area (e.g., HIV/AIDS volunteer, sports volunteer, hospice volunteer; Bang et al., 2012; Finkelstein, 2008; Omoto et al., 2010), the volunteer population in the current study engaged in a variety of volunteering experiences, as diverse as being a senior companion and building houses. Indeed, study participants may represent different sub-populations of late-midlife and older volunteers, such as volunteers for organizations with greater cohesions (e.g., Kiwanis Club, continuous care community) or volunteers for organizations based on access (e.g., Senior Corps, city information center). Davis et al.'s (2003) findings that did not indicate significant relations between volunteer satisfaction and intent to commit in the future support the likelihood that the current study population included different subsets of volunteers as their sample recruitment was more consistent with the current study (e.g., volunteers from multiple charitable organizations),

Consistent with previous literature, volunteer commitment was related to egotistical motivations (e.g., understanding function; Davis et al., 2003), as well as to motivations based on altruistic values (e.g., values function; Omoto, Snyder, & Hackett, 2010); however, hierarchical regression analysis found that the values function was the only significant predictor of intent to commit to future volunteering. The relation between altruistic values and volunteer commitment but not between egotistical motivations and intent to commit may stem from generational experiences that have shaped perceptions and beliefs about civic engagement. While many of the previous studies investigating volunteer motivations and commitment have included older volunteers as part of their participant pool (e.g., Boezeman & Ellemers, 2009; Davis et

all, 2003; Finkelstein, 2008), very few studies beyond large scale longitudinal population studies (e.g., American's Changing Lives, Health and Retirement Survey) focus solely on late-midlife and older volunteers (Clary et al., 1998). The current study included individuals from both the Baby Boomer Generation and the Silent Generation (Williams, 2012). The historical experiences of a nation emerging from the Great Depression and World War II followed by a time of prosperity and opportunity led to the call by President John F. Kennedy (1961) in his inauguration for Americans to “ask not what your country can do for you – ask what you can do for your country.” In answer to this call, programs such as the Peace Corps and components of the Senior Corps were established in the 1960's to facilitate greater volunteer participation (CNCS, 2016). The zeitgeist of the period emphasized both altruistic values and commitment to give back to the greater society, shaping how Baby Boomers and members of the Silent Generation perceive their roles and responsibilities in the greater landscape of civic duty and engagement. While altruism may not be an important motivation related to how satisfying the volunteer experience is, the shared history that emphasized community responsibility may explain why those who highly value altruism were more likely to remain committed to their volunteering.

While person-environment congruence has been noted to predict academic and employment persistence (Meir et al., 1997; Meir et al., 1993), results from the current study indicated that congruence between volunteers' career interests and characteristics of the volunteer position was not related to future intentions to volunteer. Moreover, volunteer-activity congruence did not significantly contribute above and beyond the linear combination of previously known predictors of volunteer commitment.



Preliminary findings indicated a moderate relation between volunteer interests and characteristics of volunteer activities. Nearly half of the participants reported engaging in volunteer activities that were consistent with their career-related interests. Results from the current study suggest that many late-midlife and older volunteers may pursue volunteer work that reflect their interests level. The findings from the current study also point to a smaller group of individuals whose volunteer activities are opposite their career-related interests. The correlation between volunteers' career-interest and volunteer activities further supports similarities between volunteering and paid employment (Callow, 2004; Hong et al., 2009). Yet the absence of a significant relation between volunteer-activity congruence and commitment may be due to differences between volunteering and paid employment. Galindo-Kuhn and Guzley (2002) argued that career related outcomes, such as intention to commit to future employment, may not be applicable to the volunteer setting because of the differences between volunteering and paid employment. The volitional nature of volunteer work and the differences in the reward for volunteering result in a distinct orientation to the organization compared to paid employment. This difference in orientation may account for the absence of relations between volunteer-activity congruence and volunteer commitment in the current study.

### **Limitations**

There were several limitations to the current study. First, the use of single-item questions to measure volunteer satisfaction and volunteer commitment likely have resulted in reduced reliability of these constructs. In order to reduce the effect of measurement errors in any analyses, reliability of the variable is necessary (Tabachnik & Fidell, 2007). The ability to calculate internal consistency reliability with multiple-item

measures serves as a check to evaluate whether the reliability of the instrument enhances or degrades the analysis. If tests of internal consistency reliability are not available, alternative test-retest reliability would provide information regarding the stability of participant responses on a particular item. As the present study utilized a cross-sectional design, internal consistency reliability and test-retest reliability could not be determined. Therefore, the stability of the responses cannot be evaluated. Although there has been some evidence demonstrating the reliability of single-item measures for job satisfaction (Doblier, Webster, McCalister, Mallon, & Steinhardt, 2005; Wanous, Reichers, & Hudy, 1997), happiness (Abdel-Khalek, 2006); and quality of life (de Boer, van Lanschot, Salmeier, van Sandick, Hulscher, de Haes, & Spranger, 2004), no prior reliability or validity studies of single-item measures of volunteer satisfaction have been conducted. While this study design followed Bergkvist and Rossiter (2007) recommendations of having a “concrete singular object” and a “concrete attribute” to minimize problems with reliability and validity for a single-item question (p. 183), the possibility that the single-item questions were not reliable may account for the lack of significant findings in the current study.

A second limitation of the current study comes from the method of data collection. Participants’ knowledge of and access to computers and the Internet were needed in order to complete the online surveys for the current study. In the general population, more than two-thirds of late-midlife adults use computers and access the Internet; however, less than one-third of older adults use computers or the Internet (Charness & Boot, 2009). Barriers to computer and internet access due to age-related factors, such as cognitive decline, vision problems, and not having a computer, may have

influenced who responded in the current study. Thus, information regarding volunteer behavior for late-midlife and older adults who did not have access to a computer or the Internet was captured in the current study. While no studies have been conducted regarding such differences for volunteering in later life, the narrow pool that participants were drawn from does warrant caution in making any type of generalized conclusions from the current study.

The cross-sectional, quantitative design of the current study was also a limitation in interpreting the meaning of the study findings. As the findings are based on one moment in time, causality of relations cannot be determined. For example, while altruistic values functions predicted commitment to volunteering, the initial motivation to volunteer may have been because of strong altruistic values or the motivations may have changed over time based on the actual volunteer experience or the interactions with the organization. Moreover, the quantitative design of the current study limits exploration of additional questions that would further enrich the understanding of the relations among volunteer motivations, career-related interests, and volunteering behaviors. A qualitative investigation comparing those who reported strong positive relations between career-related interests and volunteering activity with strong negative relations between interests and activity may elucidate how intentional older volunteers are in seeking opportunities that match their career-related interests. Future research incorporating longitudinal and qualitative data may provide additional anchors in the development of interventions aimed at understanding the use of career-related interests to increase volunteer participation in later life.

Finally, the characteristics of participants from the current study and their diversity in volunteer experience may warrant a larger sample size than was originally calculated. With increasing diversity that comes with age (Baltes et al., 1999; Heckhausen et al., 2010) and the various types of volunteer organizations and activities among the study participants, this study may not have had sufficient power to evaluate the relations among volunteer motivation, satisfaction, and commitment. While many studies exploring the relations among volunteer motivations, satisfaction, and commitment had similar sample sizes as the current study, the relative sample size may not have had sufficient power to detect variance in outcome measures as participants were not from a single charitable organization, such as a PGA event or a hospice facility (e.g., Boezeman & Ellemers, 2009, Finkelstein, 2008; Pauline, 2011) or have a singular focus, such as community agencies focused on HIV/AIDS patients or people with disabilities (e.g., Bang et al., 2012; Omoto et al., 2010; Penner & Finkelstein, 1998). Because participants were recruited from several charitable organizations and volunteer placement organizations, a larger sample size would have provided an opportunity to evaluate group differences based on volunteer organizations that may also have influence volunteer behaviors, including volunteer satisfaction and commitment.

### **Implications**

While it is important to be cautious about generalizations due to study limitations, there are several implications for volunteering and aging that emerge from the current study. First, programs and interventions designed to recruit and retain older adults in productive activities, such as volunteering, should take into account career-related domains in later years. Information regarding career personality and types may help

identify the type of volunteer positions and tasks that attract older adults in the first place. As part of recruitment and placement, charitable organizations may be able to streamline volunteer opportunities that may serve as a better fit for the older volunteer. By being proactive and creating volunteer positions tailored to specific career personality type, charitable organizations may be able to minimize the resources expended on volunteer recruitment and find volunteer that better match organizational needs as well.

Second, volunteer retention amongst late-midlife and older adults may be fostered by tapping into altruistic values that motivated volunteering in the first place. Rather than placing emphasis on filling time or keeping busy (Ekerdt, 1986), late-midlife and older volunteers are more likely to be committed to the organization if they have stronger altruistic feelings about their experience. Incorporating methods that help reinforce these altruistic values may help to minimize turnover, thereby reducing the cost of volunteers to charitable organizations.

Finally, the current study demonstrated the utility of the Personal Globe Inventory (PGI; Tracey, 2010) to identify career interest types for older populations. Development of a taxonomy of corresponding volunteer activities would allow for additional measurements of congruence to be utilized in determining person-environment fit for volunteers. Having such a tool could assist volunteer organizations with recruitment and placement. In addition, comparisons between occupational taxonomies and volunteer taxonomies could assist in the transition between work and retirement in selecting the type of volunteer experience one may want in later years. As older adults account for an increasing proportion of the overall population, continued exploration identifying

avenues to increase participation in productive engagement, such as the development of a volunteer taxonomy, is needed.

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APPENDIX A  
REVIEW OF LIFESPAN PSYCHOLOGY THEORY

## **Theory of Lifespan Psychology**

While many theories of aging account for declines related to or experienced by older adults, few theories take into consideration the possibility of age-related growth and/or plasticity in late life. Traditional theories of aging, such as disengagement theory or continuity theory, emphasize older adults' reduction in activities they had engaged in during midlife or attempts to maintain those activities into their later years (Atchley, 1989). These theories assume growing older is equivalent to loss, and one responds either by accepting the loss and slowly withdrawing or through attempts to preserve existing internal and external resources. Absent from such traditional views of aging is the inclusion of potential gains and plasticity in later years and the possibility of developing new skills and interests as one grows older in the 21st century. Baltes and colleagues (e.g., Baltes, 1997; Baltes, Staudinger, & Lindenberger, 1999; Carstensen, 1995; Freund & Baltes, 1998; Heckhausen & Schultz, 1995; Schulz & Heckhausen, 1996) identified an alternative approach to understanding aging that incorporates a lifespan perspective. Their theory of lifespan psychology integrates an overall architecture of development that includes both biology (i.e., nature) and cultural resources (i.e., nurture) with an emphasis on gains and losses across the lifespan.

Baltes (1997) took the nature versus nurture argument often proposed in childhood development theories and extended the framework of the debate to include development throughout the entire lifespan. Rather than an either/or approach, Baltes and his colleagues (Baltes 1997; Baltes, et al., 1999) placed equal emphasis on biological and cultural factors, as well as on the interaction between biology and culture. Underlying the theory of lifespan psychology is the notion that changes in normative age-

graded influences (e.g., puberty, child-bearing, or old age), history-graded influences (e.g., economic depression, technological advances, or war), and non-normative influences (e.g., unexpected illness, divorce, or career change) shape human development (Baltes & Smith, 2004). The interactions of these three factors co-construct a system of influences that mediate the development of each person, resulting in a cumulative human experience that shares common developmental patterns.

The interplay between normative age-related influences, history-graded influences, and non-normative influences shapes three developmental arcs across the lifespan: (a) the benefits of biology decreases with age; (b) the need for environmental resources increases with age, and (c) the efficacy of internal and external resources decreases with age (Baltes, 1997; Baltes & Smith, 2004; Baltes et al., 1999). These three arcs form the basic assumptions in the theory of lifespan psychology and frame growth and decline in human development. First, biological advantages occur early in development but decline and are less relevant with age. The ability to maximize biological potential during maturation, such as increase in physical strength or develop faster cognitive processing speed, are offset as one ages due to normative age-related influences, history-graded influences, or non-normative influences. This developmental arc can be seen when considering two types of memory loss that occur at the ends of the lifespan, infantile amnesia and Alzheimer's Disease. Infantile amnesia, or the inability to remember events from the earliest years, is thought to be the likely result of high level of neuronal growth along the hippocampus early in life (Josselyn & Frankland, 2012). Memory loss in babies and toddlers are a side effect of their rapid brain growth, resulting in the inability to encode information into long-term memory stores before new neurons

are made. On the other hand, Alzheimer's Disease, a common memory disorder in late life, is a result of damage from the accumulation of tau tangles inside of the neuron and buildup of  $\beta$ -amyloid plaques outside of the neurons (Alzheimer's Association, 2014). Memory loss due to Alzheimer's Disease is a result of the brain being damaged without the ability to compensate for the neuronal loss. While both forms of memory loss are related to changes in the brain structure, infantile amnesia is a side effect of biological growth and plasticity (i.e., benefits of biology); whereas Alzheimer's Disease is a result of neuronal damage (i.e., loss of biological plasticity). This shift in biological benefits increases older adults' vulnerability toward greater physical, cognitive, and functional disability. (Baltes & Smith, 2003; Singer, Verhaeghen, Ghisletta, Lindenberger, & Baltes, 2003).

The employment of environmental resources can buffer the decline of biological benefits experienced across (Baltes, 1997; Baltes & Smith, 2004; Baltes et al., 1999). Consequently, the second developmental arc highlights the increasing need for environmental resources to offset biological declines. During childhood and adolescent development, the target of environmental resources is often in the growth and development of the person (e.g., good nutrition or enriched environments (Baltes & Smith, 2004). In later years, the environmental resources are increasingly needed in order to mitigate the biological declines that come with aging. For example, older adults who have arthritis may have difficulty with adherence to current arthritis interventions (e.g., medication or physical activity programs) more challenging as they are more likely to experience functional disabilities, such as vision and balance problems (Beckman, Parker, & Thorslund, 2005; Hootman, Helmick, & Brady, 2012). As a result, older

arthritis sufferers may need additional adaptive equipment, such as visual magnifying systems, and adjustments to program interventions, such as adding balance strength training to a physical activity program. Moreover, there is a growing need for environmental resources simply to maintain physical, psychological, and social health functioning into later years (Baltes & Smith, 2003).

Although there is an increasing need for environmental resources across the lifespan, the third arc of development underscores the inverse relationship between the efficacy of those resources in developing or maintaining functioning and age (Baltes, 1997; Baltes & Smith, 2004; Baltes et al., 1999). Resources employed in early years are less effective in later years due to the decline in biological plasticity and resilience that comes with longevity. For example, antipsychotic medications are less effective in treating older adults with psychotic disorders due to age-related changes in absorption and metabolism (Kohen, Lester, & Lam, 2010). Moreover, upward trajectory of gains made across the lifespan leaves a smaller proportion of available growth in any domain. As a result, the potential effectiveness of any environmental resource declines. Intellectual growth is one example in which the application of environmental resources become less effective over time (Singer et al., 2003). Older adults experience decline in speed of processing, fluency, and memory abilities which makes most traditional learning techniques less effective for older learners than for younger ones. Thus, older adults may need to modify ways to encode new information in order to learn new knowledge and skills. For older adults, being strategic about how to employ their available resources then becomes critical in the maintenance of physical, psychological, and social functioning (Baltes et al., 1999).

## **Model of Selective Optimization with Compensation**

In response to these structural shifts, the model of selective optimization with compensation (SOC) was proposed to describe behaviors that incorporate the adaptive needs of changing resources and challenges in order to maximize gains while minimizing losses (Baltes, 1997, Baltes & Smith, 2004; Baltes et al., 1999). Selective optimization with compensation is an action-oriented process describing a mechanism of development and adaptive functioning. The three components include the identification and directionality of goals and domains one pursues (selection), the acquisition and application of resources to enhance this pursuit (optimization), and the adaptation to loss of internal and external resources (compensation).

According to lifespan psychologists, development inherently stems from a series of selection from the moment of birth until the end of life, the first process in the SOC model (Baltes et al., 1999). Whether a baby cries from hunger or a cancer patient chooses hospice in pursuit of a “good death,” each decision point represents a selection from a pool of potential pathways. The conditions for the selection, however, may differ (Freund & Baltes, 1998). Selection, therefore, may be an elective process where choices are based on motivation-driven selection, such as deciding on a college major or career path. Selection can also be loss-based and require adjustments to goals as a result of loss of abilities or resources, such as being forced into retirement or losing one’s friend network in late life. Moreover, individuals face an increasing limitation of opportunities to select new goals as the pool of potentialities narrows with each selection due to the iterative nature of SOC across the lifespan.



Once a goal has been identified, the acquisition and application of internal and external resources are employed in order to maximize achievement through the second process of optimization. The allocation of internal resources, such as time and goal pursuit, in combination with support via environmental means, such as availability of financial support and opportunities to acquire skills, is needed in order to reach the targeted goal or domain. For example, Ericsson and colleagues (1993) described how professional violinists employ deliberative practice techniques aimed at developing new skills while seeking out new teachers and mentors to assist in their professional growth. For 80-year-old concert pianist, Arthur Rubenstein, practicing pieces more often optimized his abilities to maintain his high level of performance despite experiencing age-related declines (Baltes et al., 1999). Because older adults experience age-related declines and loss of resources, their interests and desires to pursue goals in life require the application of optimization in the allocation of internal and external resources.

The third component of the SOC model, compensation, is based on the adaptive response one makes when experiencing loss in abilities and opportunities to pursue one's selected goals (Baltes, 1997; Baltes & Smith, 2004; Baltes et al., 1999). Compensation occurs when individuals experience a depletion of resources during the process of selection and/or optimization, lose available resources due to external factors, and/or experience age-associated biological declines (Baltes, 1998; Baltes & Smith, 2003; Baltes et al., 1999; Freund, Nikitin, & Ritter, 2009; Schulz & Heckhausen, 1996). Consequently, individuals develop primary compensatory strategies (e.g., changing the environment to meet one's needs) or the secondary compensatory strategies (e.g.,

changing the self to align with environmental forces) in order to cope with declines in opportunities and resources (Heckhausen, Wrosch, and Schultz, 2010).

The differences in the use of primary or secondary compensatory strategies are highlighted in the research evaluating differences among African-American, Latino, and Caucasian caregivers who experience elevated caregiver burden (e.g., Coon et al., 2004; Haley et al., 2004). When faced with caregiver burden, White or Caucasian dementia caregivers are more likely to ask for instrumental support from others (e.g., primary compensatory strategies), whereas, African-American and Latino dementia caregivers tend to reframe as a valuable familial role (e.g., secondary compensatory strategies). The use of compensatory strategies assists in minimizing the effects of age-related and environmental changes while maximizing available resources.

APPENDIX B  
INSTITUTIONAL REVIEW BOARD APPROVAL



EXEMPTION GRANTED

Sharon Kurpius  
 CLS - Counseling and Counseling Psychology  
 480/965-6104  
 sharon.kurpius@asu.edu

Dear Sharon Kurpius:

On 1/23/2015 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Volunteering Among Older Adults: Interests, Motivations, and Satisfaction
Investigator:	Sharon Kurpius
IRB ID:	STUDY00002101
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> <li>• Volunteer Administrator Recruitment Letter Revised 11314.pdf, Category: Recruitment Materials;</li> <li>• Keaveny IRB Application - Revised 12214b.docx, Category: IRB Protocol;</li> <li>• Keaveny Informed Consent Revised.pdf, Category: Consent Form;</li> <li>• Volunteer Recruitment Letter Revised 11314.pdf, Category: Recruitment Materials;</li> <li>• Keaveny Dissertation Survey - Revised 11314.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> </ul>

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 1/23/2015.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Maureen Keaveny  
 Maureen Keaveny

APPENDIX C

SENIOR CORPS RECRUITMENT LETTER



NORTHERN ARIZONA  
UNIVERSITY  
*College of Social & Behavioral Sciences*

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**Civic Service Institute**

Dear NAU Senior Corps Volunteers:

Maureen Keaveny, a doctoral student at Arizona State University (ASU) in Counseling and Counseling Psychology, is conducting research investigating the relationship between interests, motivations, and satisfaction among older volunteers for her dissertation. The ASU Institutional Review Board (IRB) has approved her study.

Her study includes an on-line survey, which will take approximately 30 minutes to complete, regarding your volunteer experience. All information is anonymous and the only people with access to the information will be Maureen and the chair of her committee.

The Civic Service Institute has supervised Ms. Keaveny in providing mailing labels so she could send out this letter. The supervision was provided so that Ms. Keaveny could only affix the labels to the envelopes and could not copy any of your personal information, addresses included. You have the opportunity to opt into this study by going to the website provided in the mailing. To opt out, do not go to the website.

If you have any questions about the study, in particular, please contact Maureen Keaveny at [Maureen.Keaveny@asu.edu](mailto:Maureen.Keaveny@asu.edu) or by phone at 480-779-9151. If you have questions regarding how the contact information was provided, please contact Carole Mandino, Director, Civic Service Institute at NAU at [Carole.Mandino@nau.edu](mailto:Carole.Mandino@nau.edu) or by phone at 928-523-6584.



PO Box 5063 Flagstaff, AZ 86011-5063  
928-523-3560 or toll free at 866-856-3017



APPENDIX D  
INFORMED CONSENT FORM



## **Volunteering in Retirement: Interests and Motives in Older Adult Volunteerism**

Dear Participant:

My name is Maureen Keaveny and I am a graduate student under the direction of Dr. Sharon Robinson Kurpius in the Department of Counseling and Counseling Psychology at Arizona State University. I am conducting a research study examining mid-life and older adult volunteerism.

I am inviting your participation, which will involve approximately 30 minutes of your time, in which you will be asked to complete an online survey about your interests and your volunteer activities. You have the right not to answer any question and to stop participation at any time.

Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. Upon completion of the study, a \$2 donation to the volunteer organization of your choice will be made. At the end of the survey, you will be provided a link to submit the name and contact information for the volunteer organization you would like to receive the donation. You must be at least 50 years old and not currently engaged in paid employment to participate in this study.

Although there is no direct benefit to you, possible benefits of your participation include improved understanding of volunteerism in midlife and later, better organizational outreach and match for adult volunteers, and ways to maintain older adult engagement with activity. There are no foreseeable risks or discomforts to your participation. No identifying information (e.g., name, address, volunteer organization) will be collected as part of the research study and your responses will be anonymous. The results of this study may be used in reports, presentations, or publications but your name will not be known. Results also will only be shared in aggregate form.

If you have any questions concerning the research study, please contact the research team at: [Sharon.Kurpius@asu.edu](mailto:Sharon.Kurpius@asu.edu) or [Maureen.Keaveny@asu.edu](mailto:Maureen.Keaveny@asu.edu). If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788. Please let me know if you wish to be part of the study. Selecting the “next” button below will be considered your consent to participate.

Sincerely,

Maureen K. Keaveny, M.Ed.  
Doctoral Candidate, Counseling and Counseling Psychology  
College of Letters and Sciences  
Arizona State University

APPENDIX E  
TABLES AND FIGURES

Table 1

*Demographic Characteristics of Participants (N = 167)*

<i>Characteristics</i>	n	%
<b>Age Ranges</b>		
50 to 60 years	34	20.4
61 to 70 years	59	35.4
71 to 80 years	56	33.6
81 years and older	18	10.8
<b>Gender</b>		
Male	75	45.5
Female	90	54.5
<b>Marital Status</b>		
Married	96	58.2
Domestic Partnership or Civil Union	6	3.6
Widowed	23	13.9
Divorced or Separated	26	15.8
Living with a Significant Other	5	3.0
Never Married	8	4.8
<b>Race/Ethnicity</b>		
American Indian or Alaskan Native	2	1.2

(Table 1 continues)

(Table 1 continued)

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Black or African American	3	1.8
Caucasian	150	90.4
Hispanic or Latino	9	5.4
Native Hawaiian or other Pacific Islander	1	0.6
Other/Multi-Racial	1	0.6
Education		
High School Diploma or Equivalent	6	3.6
Some college but No Degree	31	18.6
Associates Degree	13	7.8
Bachelor's Degree	53	31.7
Graduate Degree	64	38.3
Employment		
Employed, Working Full-time	20	12.0
Employed, Working Part-time	10	6.0
Not Employed, Looking for Work	8	4.8
Not Employed, Not Looking for Work	11	6.6
Disabled, Not Able to Work	3	1.8
Retired	115	68.9

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(Table 1 continues)

(Table 1 continued)

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Military Service

Currently in the National Guard or Reserves	5	3.0
Active Duty in the Past	30	18.1

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Table 2

*Results of t-test and Descriptive Statistics for Demographic Variables and Volunteering Interests, Activities, Motivations, Satisfaction, and Commitment by Employment Status (N = 167)*

<i>Variables</i>	<i>Employed (n = 30)</i>		<i>Not Employed (n = 137)</i>		<i>t</i>	<i>df</i>		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>95% CI</i>	
Age	59.47	6.53	70.85	8.60	-14.67	-8.09	-6.83***	165
Self-rated health	4.07	0.83	3.87	0.90	-0.16	0.54	1.06	165
Hours volunteering per week	7.27	6.12	10.20	10.43	-5.62	-0.26	-2.20*	57.21
<b>Volunteer Interests Subscales</b>								
Social Facilitation	11.96	4.77	10.82	5.21	-0.90	3.18	1.10	165
Managing	12.43	4.35	10.67	5.54	-0.37	3.89	1.63	156
Business detail	11.74	5.98	9.39	5.98	-0.03	4.72	1.94	165
Data processing	11.12	5.16	8.80	5.34	0.20	4.43	2.16*	165
Mechanical	12.76	6.97	8.99	5.52	1.02	6.52	2.78**	37.36
Nature/outdoors	12.71	6.81	11.42	6.09	-1.18	3.77	1.03	165
Artistic	11.20	6.68	9.41	5.51	-0.49	4.07	1.55	165
Helping	12.69	5.17	13.02	5.68	-2.56	1.89	-0.30	165
<b>Volunteer Activities Subscales</b>								
Social Facilitation	3.30	0.79	3.11	0.87	-0.15	0.53	1.10	165
Managing	1.60	0.77	1.43	0.74	-0.12	0.47	1.16	165
Business detail	1.47	0.68	1.49	0.75	-0.32	0.27	-0.18	165
Data processing	1.87	0.86	1.94	0.97	-0.45	0.30	-0.39	165
Mechanical	1.67	0.76	1.39	0.64	-0.02	0.58	1.86	38.49

(Table 2 continues)

(Table 2 continued)

Nature/outdoors	2.30	0.99	1.71	0.94	0.21	0.97	3.09**	165
Artistic	1.83	0.70	1.97	0.89	-0.48	0.20	-0.79	165
Helping	3.13	0.73	2.91	0.96	-0.09	0.53	1.42	53.38
Interest-Activity Congruence	.22	.40	.24	.46	-0.19	0.16	-0.18	162
VFI Subscale								
Social	15.51	8.32	16.03	8.68	-3.96	2.90	-0.30	165
Values	30.00	5.40	29.85	6.10	-1.87	2.89	0.42	165
Understanding	29.57	6.07	25.64	4.09	1.06	5.06	3.04**	83.59
Protective	13.30	6.84	10.97	6.78	-0.37	5.03	1.70	165
Enhancement	19.37	6.95	19.86	7.91	-3.58	2.59	-0.32	165
Volunteer satisfaction	3.13	1.28	3.07	1.27	-0.45	0.57	0.23	165
Volunteer commitment	3.57	0.77	3.55	0.75	-0.29	0.31	0.08	165

\*  $p < 0.05$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.05$

Table 5

*Frequencies of Profile Correlation Scores (N = 167)*

<i>Range</i>	n	%
$\leq -0.80$	2	1.2
-0.70 to -0.79	3	1.8
-0.60 to -0.69	4	2.4
-0.50 to -0.59	6	3.6
-0.40 to -0.49	1	0.6
-0.30 to -0.39	5	3.0
-0.20 to -0.29	8	4.2
-0.10 to -0.19	6	3.6
-0.09 to 0	10	6.0
0 to 0.09	21	12.6
0.10 to 0.19	6	3.6
0.20 to 0.29	23	13.8
0.30 to 0.39	12	7.2
0.40 to 0.49	9	5.4
0.50 to 0.59	13	7.8
0.60 to 0.69	14	8.4
0.70 to 0.79	9	5.4
$\geq 0.80$	20	12.0



Table 6

*Skewness and Kurtosis Statistics*

Variable	Skewness Statistic	Kurtosis Statistic	Transformation Method	Transformed Skewness Statistic	Transformed Kurtosis <u>Statistic</u>
Age	-0.029	-0.674			
Self-rated health	-0.383	-0.638			
Social function	0.254	-1.149	Square Root	0.896	-0.744
Values function	-1.262	0.848	Reflect + Square Root	0.604	-0.643
Understanding function	-0.834	-0.016			
Protective function	1.282	1.227	Square Root	0.797	-0.160
Enhancement	0.040	-0.861			
Volunteer-Activity Congruence	-0.427	-0.518			
Volunteer Satisfaction	-0.917	-0.973			

Table 9

*Summary of Hierarchical Regression Analysis for Variables Predicting Volunteer Satisfaction*

<i>Variable</i>	<i>Model 1</i>			<i>Model 2</i>			<i>Model 3</i>			<i>Model 4</i>		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Age	0.00	0.01	0.00	0.00	0.01	0.01	-0.01	0.01	-0.04	0.00	0.01	-0.03
Gender	0.53	0.23	0.21**	0.53	0.23	0.21**	0.59	0.23	0.23**	0.67	0.24	0.26**
Marital status <sup>a</sup>	0.05	0.23	0.02	0.07	0.23	0.03	-0.01	0.24	0.00	-0.01	0.24	0.00
Education <sup>b</sup>	-0.01	0.23	0.00	0.01	0.23	0.00	0.04	0.24	0.01	0.04	0.24	0.01
Employment <sup>c</sup>	-0.12	0.29	-0.04	-0.14	0.30	-0.04	-0.15	0.30	-0.05	-0.17	0.30	-0.05
Self-rated health	0.13	0.12	0.09	0.13	0.12	0.09	0.10	0.12	0.07	0.09	0.12	0.06
Time volunteering				0.05	0.08	0.05	0.10	0.08	0.10	0.10	0.08	0.10
Social function							0.16	0.10	0.14	0.18	0.10	0.16*
Values function							-0.15	0.11	-0.13	-0.16	0.11	-0.14

(Table 9 Continues)

Table 9 Continued

Understanding function	0.01	0.02	0.05	0.01	0.02	0.05
Protective function	-0.12	0.13	-0.09	-0.12	0.13	-0.09
Enhancement function	-0.01	0.02	-0.06	-0.01	0.02	-0.06
Volunteer-Activity Congruence				-0.28	0.24	-0.10
$R^2$	.046	.048	.083		.092	
$\Delta R^2$	.046	.002	.035		.008	
$F$ for $\Delta R^2$	$F(6, 155) = 1.24$	$F(1, 154) = 0.36$	$F(5, 149) = 1.15$		$F(1, 148) = 1.35$	
Model Fit	$F(6, 155) = 1.24$	$F(7, 154) = 1.11$	$F(12, 149) = 1.13$		$F(13, 148) = 1.15$	

Note: <sup>a</sup> Responses on marital status was dichotomized with married, civil union, or cohabitating with a partner in one group and never married, widowed, divorced, and separated in another group.

<sup>b</sup> Responses on education were dichotomized using a median split having an Associate's degree or lower in one group and having Bachelor's degree or higher in another group.

<sup>c</sup> Responses on employment were dichotomized with participants who reported being full-time or part-time employed in one group and participants who reported being retired and not employed in another group.

\*  $p < .10$ . \*\*  $p < .05$ .

Table 10

*Summary of Hierarchical Regression Analysis for Variables Predicting Volunteer Commitment*

<i>Variable</i>	<i>Model 1</i>			<i>Model 2</i>			<i>Model 3</i>			<i>Model 4</i>		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Age	0.00	0.01	0.02	0.00	0.01	0.02	0.01	0.01	0.09	0.01	0.01	0.09
Gender	0.21	0.14	0.14	0.19	0.14	0.13	0.14	0.14	0.09	0.13	0.15	0.09
Marital status <sup>a</sup>	-0.07	0.14	-0.04	-0.07	0.14	-0.05	-0.05	0.14	-0.03	-0.05	0.14	-0.03
Education <sup>b</sup>	-0.04	0.14	-0.03	-0.04	0.14	-0.03	-0.09	0.14	-0.05	-0.09	0.14	-0.05
Employment <sup>c</sup>	-0.06	0.18	-0.03	-0.05	0.18	-0.03	-0.06	0.17	-0.03	-0.06	0.17	-0.03
Self-rated health	0.05	0.07	0.06	0.05	0.07	0.06	0.02	0.07	0.02	0.02	0.07	0.02
Volunteer satisfaction				0.04	0.05	0.07	0.05	0.05	0.08	0.05	0.05	0.08
Social function							0.05	0.06	0.08	0.05	0.06	0.08
Values function							0.17	0.06	0.26***	0.17	0.06	0.26***

(Table 10 Continues)

Table 10 Continued

Understanding function	0.00	0.01	0.03	0.00	0.01	0.03
Protective function	0.08	0.07	0.10	0.08	0.07	0.10
Enhancement function	-0.01	0.01	-0.07	-0.01	0.01	-0.07
Volunteer-Activity Congruence				0.03	0.14	0.02
$R^2$	.031	.035	.131		.131	
$\Delta R^2$	.031	.004	.095		.000	
$F$ for $\Delta R^2$	$F(6,155) = 0.84$	$F(1,154) = 0.65$	$F(5,149) = 3.26^{***}$		$F(1,148) = 0.03$	
Model Fit	$F(6,155) = 0.84$	$F(7,154) = 0.81$	$F(12,149) = 1.86^{**}$		$F(13,148) = 1.71^*$	

Note: <sup>a</sup> Responses on marital status was dichotomized with married, civil union, or cohabitating with a partner in one group and never married, widowed, divorced, and separated in another group.

<sup>b</sup> Responses on education were dichotomized using a median split having an Associate's degree or lower in one group and having Bachelor's degree or higher in another group.

<sup>c</sup> Responses on employment were dichotomized with participants who reported being full-time or part-time employed in one group and participants who reported being retired and not employed in another group.

\*  $p < .10$ . \*\*  $p < .05$ . \*\*\*  $p < .01$ .

Figure 1. Scatterplot Depicting Regression Residuals for Volunteer Satisfaction

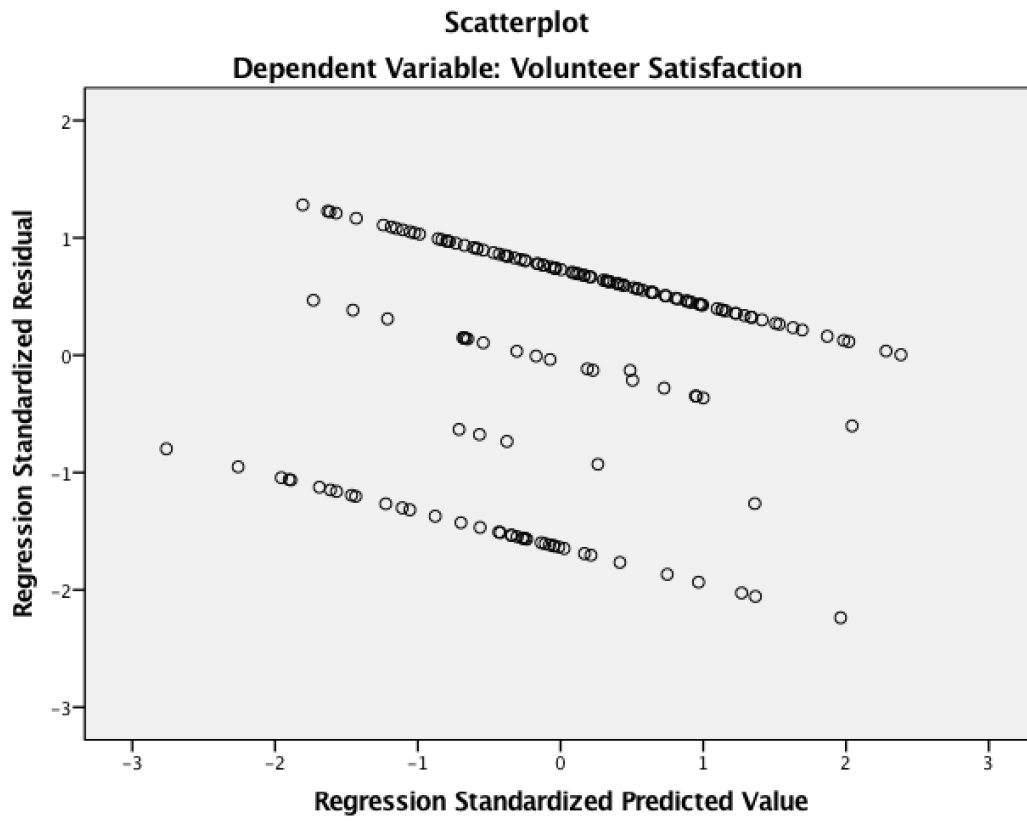
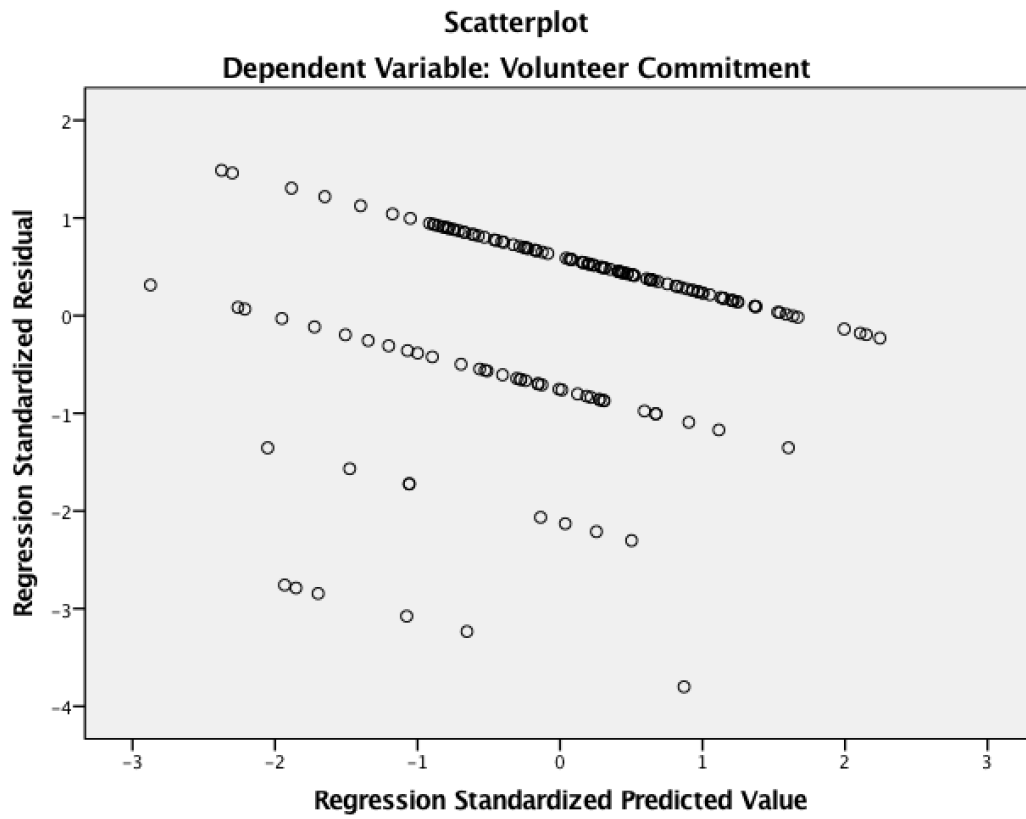


Figure 2. Scatterplot Depicting Regression Residuals for Volunteer Commitment



APPENDIX F  
DEMOGRAPHIC SHEET



**\*2. What is your age?**

**3. What is your gender?**

- Male
- Female

**4. Which of the following best describes your current relationship status?**

- Married
- Widowed
- Divorced
- Separated
- In a domestic partnership or civil union
- Single, but cohabiting with a significant other
- Single, never married

**5. What is the highest level of school you have completed or the highest degree you have received?**

- Less than high school degree
- High school degree or equivalent (e.g., GED)
- Some college but no degree
- Associate degree
- Bachelor degree
- Graduate degree

**6. Which of the following categories best describes your employment status?**

- Employed, working full-time
- Employed, working part-time
- Not employed, looking for work
- Not employed, NOT looking for work
- Retired
- Disabled, not able to work

**7. Have you ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?**

- Never served in the military
- Only on active duty for training in the Reserves or National Guard
- Now on active duty
- On active duty in the past, but now not

**8. Are you White, Black or African-American, American Indian or Alaskan Native, Asian, Native Hawaiian or other Pacific islander, or some other race?**

- White
- Black or African-American
- American Indian or Alaskan Native
- Asian
- Native Hawaiian or other Pacific Islander
- From multiple races

Some other race (please specify)

**9. Are you Mexican, Mexican-American, Chicano, Puerto Rican, Cuban, Cuban-American, or some other Spanish, Hispanic, or Latino group?**

- I am not Spanish, Hispanic, or Latino
- Mexican
- Mexican-American
- Chicano
- Puerto Rican
- Cuban
- Cuban-American
- Some other Spanish, Hispanic, or Latino group
- From multiple Spanish, Hispanic, or Latino groups

**10. How would you rate your health?**

- Excellent
- Very good
- Good
- Fair
- Poor

**11. Please indicate if you have had any of the following health conditions within the past 12 months:**

	Yes	No
Arthritis	<input type="radio"/>	<input type="radio"/>
Lung disease	<input type="radio"/>	<input type="radio"/>
Hypertension	<input type="radio"/>	<input type="radio"/>
Heart Attack	<input type="radio"/>	<input type="radio"/>
Diabetes	<input type="radio"/>	<input type="radio"/>
Cancer	<input type="radio"/>	<input type="radio"/>
Foot problems	<input type="radio"/>	<input type="radio"/>
Stroke	<input type="radio"/>	<input type="radio"/>
Broken bone	<input type="radio"/>	<input type="radio"/>
Incontinence	<input type="radio"/>	<input type="radio"/>

APPENDIX G

MODIFIED VOLUNTEER FUNCTIONAL INVENTORY

Please indicate how important or accurate each of the 30 possible reasons for volunteering were for you in doing volunteer work.

(1 = not at all important/accurate; 7 = extremely important/accurate.)

1. My friends volunteer.
2. I am concerned about those less fortunate than myself.
3. People I'm close to want me to volunteer.
4. Volunteering makes me feel important.
5. People I know share an interest in community service.
6. No matter how bad I've been feeling, volunteering helps me to forget about it.
7. I am genuinely concerned about the particular group I am serving.
8. By volunteering I feel less lonely.
9. Doing volunteer work relieves me of some of the guilt over being more fortunate than others.
10. I can learn more about the cause for which I am working.
11. Volunteering increases my self-esteem.
12. Volunteering allows me to gain a new perspective on things.
13. I feel compassion toward people in need.
14. Others with whom I am close place a high value on community service.
15. Volunteering lets me learn things through direct, hands on experience.
16. I feel it is important to help others.
17. Volunteering helps me work through my own personal problems.
18. I can do something for a cause that is important to me.

19. Volunteering is an important activity to the people I know best.
20. Volunteering is a good escape from my own troubles.
21. I can learn how to deal with a variety of people.
22. Volunteering makes me feel needed.
23. Volunteering makes me feel better about myself.
24. Volunteering is a way to make new friends.
25. I can explore my own strengths.

#### Scoring Key

Items 6, 8, 9, 17, 20 make up the Protective factor.

Items 2, 7, 13, 16, 18 make up the Values factor.

Items 1, 3, 5, 14, 19 make up the Social factor.

Items 10, 12, 15, 21, 25 make up the Understanding factor

Items 4, 11, 22, 23, 24 make up the Enhancement factor.

Scoring is kept at the factor level and kept continuous.



Maureen K. Keaveny, M.Ed.  
 Arizona State University  
 Department of Counseling and Counseling Psychology  
 446 Payne Hall, MC-0811  
 Tempe, AZ 85287-0811

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 \_\_\_\_\_  
 for the American Psychological Association

\_\_\_\_\_  
 Date

August 28, 2014  
 \_\_\_\_\_  
 Date

\_\_\_\_\_ I wish to cancel my request for permission at this time.

APPENDIX H

MODIFIED PERSONAL GLOBE INVENTORY – SHORT FORM



Please look at the following list of activities. Please rate how much you Like the activity.  
Use the scales listed below to rate Liking.

Strongly Dislike		Neutral			Strongly Like	
1	2	3	4	5	6	7

1. Seat patrons at a restaurant
2. Oversee a hotel
3. Prepare financial reports
4. Oversee a data analysis group
5. Install electrical wiring
6. Categorize different types of wildlife
7. Sculpt a statue
8. Help children with learning problems
9. Give lecture to large groups
10. Drive a bus
11. Interview people for a survey
12. Manage an office
13. Maintain office financial records
14. Manage an electrical power station
15. Oversee building construction
16. Write a scientific article
17. Paint a portrait
18. Teach people to dance
19. Study the effects of elections
20. Carry and load containers
21. Sell clothes to others
22. Oversee sales
23. Keep records of stock sales
24. Write computer programs for business
25. Inspect construction sites for safety
26. Teach science
27. Write a play
28. Teach others cooking
29. Set up social programs
30. Drive a taxi
31. Escort people through a television studio
32. Organize office records

33. Establish a business accounting procedure
34. Analyze survey maps
35. Assemble precision optical instruments
36. Study wildlife
37. Draw cartoons
38. Supervise children in a nursery
39. Defend people in court
40. Smooth wood-furniture with sandpaper

#### Scoring Rubric

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1. Social facilitating =  $i1 + i11 + i21 + i31$
2. Managing =  $i2 + i12 + i22 + i32$
3. Business detail =  $i3 + i13 + i23 + i33$
4. Data processing =  $i4 + i14 + i24 + i34$
5. Mechanical =  $i5 + i15 + i25 + i35$
6. Nature/outdoors =  $i6 + i16 + i26 + i36$
7. Artistic =  $i7 + i17 + i27 + i37$
8. Helping =  $i8 + i18 + i28 + i38$
9. Realistic = Scale5
10. Investigative = Scale6
11. Artistic = Scale7
12. Social =  $(2 \text{ Scale8} + \text{Scale1})/3$
13. Enterprising =  $(2 \text{ Scale2} + \text{Scale1})/3$
14. Conventional =  $(2 \text{ Scale4} + \text{Scale3})/3$
15. People/things = Scale11 Scale12
16. Ideas/data = Scale14 Scale13

APPENDIX I  
VOLUNTEER EXPERIENCE SHEET

Think about your current or most recent volunteer activity

**12. Describe the main organization you volunteer for:**

**13. Describe the title of your volunteer position at this organization:**

**14. What are the primary volunteer duties you perform?**

**15. In a typical week, about how many hours do you volunteer for this organization?**

**16. How much of your volunteer activities are spent**

	None of the time	Some of the time	Most of the time	All of the time
on working with others?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
on various aspects of running a business?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
on detail and office activities in business?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
on aspects of managing detail and information?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
on understanding and working on machinery?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
on working and being in the outdoors?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
on creative and expressive activities?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
on helping others in a variety of manners?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**17. Overall, were you satisfied with your volunteer experience with the organization?**

- Very dissatisfied
- Somewhat dissatisfied
- Somewhat satisfied
- Very satisfied

**18. How likely are you to continue volunteering at this organization in the future?**

- Not at all likely
- Somewhat likely
- Very likely
- Extremely likely