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Personal and Community Engagement as it Relates to Well-being

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ABSTRACT

Existing literature on the association between personal (e.g., family and friends) and community (e.g., involvement in adult educational courses and volunteering opportunities) social engagement and well-being as it relates to middle to older adults is limited. The present study used data from Tailoring Environment for Active Life Engagement 2.0 (TEALE 2.0; $N=560$, $M_{age} = 18.45$ $SD_{age} = 11.89$) to explore how personal (e.g., family and friends) and community social engagement (e.g., involvement in adult educational courses and volunteering opportunities) relates to well-being. Personal social engagement was measured using one item where participants were asked about their engagement within their microsystem (e.g. friends, neighbors). Community social engagement was measured by 2 items asking about participation in continuing education and volunteering. Overall well-being was assessed with select items from the Patient-Reported Outcomes Measurement Information System (PROMIS) Positive Affect and Well-being item bank. Factors of well-being was assessed using scales of (a) instrumental activities of daily living (IADL), (b) depression, (c) sleep, and (d) cognitive function. Correlations and linear regressions were conducted to explore the association between personal (e.g., family and friends) social engagement and well-being. Analysis of variance (ANOVA) tests were conducted to explore the association between community (e.g., involvement in adult educational courses and volunteering opportunities) social engagement and well-being. Study findings suggested that reports of more frequent personal engagement were significantly associated with better overall well-being. More frequent personal engagement was also associated factors of well-being, such better instrumental activities of daily living, lower depressive symptoms, and lower levels of sleep disturbances. Findings suggested that adults

volunteering in the community tended to have better overall wellbeing ($F(2, 497) = 5.57, p < .01$), and but worse cognitive function ($F(2,498) = 6.61, p < .01$), than adults not volunteering in the community. The present study's findings support the potential benefit of future research exploring how personal and social engagement relates to the correlates of wellbeing in middle to late adults.

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Chapter 1

Introduction

Scientific and public health literature tends to focus on negative health outcomes that middle-aged adults are at risk for receiving, such as diagnoses of Alzheimer's disease and related dementias (ADRD), cancer, cardiovascular disease, diabetes, and arthritis (Prince et al., 2015). However, less literature focuses on how middle-aged adults' positive well-being can protect their physical health (Pizarro, 2004). Specifically, literature highlights the comparison between youth, middle, and older adults' wellbeing. The results show that older adults tend to have a more positive well-being compared to younger adults (Orang et al., 2018). Indeed, some literature reveals that higher levels of well-being are associated with better health outcomes (e.g., cognitive performance; Cook, 2017; Hao, 2008) in adults. With promising evidence of the protective benefits of well-being, research is warranted to explore factors (e.g., social engagement) that promotes better well-being. While greater social engagement (e.g., family and friends) amongst older adults has been related to better life satisfaction (Huxhold et al., 2014), which is a proxy of well-being. However, limited research has examined the association between social engagement and overall well-being.

Well-being and Benefits of Positive Well-being in Adults

Research has largely defined well-being as the presence of positive emotions and moods (Alder et al., 2017). When looking closely at the research pertaining to well-being, three specific aspects are distinguished. The first aspect, evaluative wellbeing, also known as life satisfaction, encompasses a person's self-assessment of their standard of living as elevated by their own *principals* (Shin & Johnson, 1978). The second aspect, hedonic well-being, is defined as emotions and or feelings (e.g., distress, pride, and happiness). The third aspect of wellbeing is eudaimonic, which is defined as an individual's intention or motivation in life. The aforementioned aspects allow the broad term of well-being to be better understood when examining and surveying the well-being of middle-aged and older adults. For example, Seligman (2011) defines well-being as having removed the negative effects of human exposure well instating the empowering effects. When specifically looking at the well-being of older adults, research has shown that well-being in the older demographic is defined as "a positive psychological construct related to subjective views of one's self and life" (Cook et al., 2017). Ryff (2014) suggests that life span developmental psychology, clinical psychology, and mental health research had an influence in the development of the concepts and research of well-being. Well-being is described, analyzed, and felt differently by everyone, especially considering the individual differences observed in goals, ambitions, and personalities. Ryff (2014), however, concluded that there is a lack of research on well-being pertaining to adult development, particularly research that encompasses more than one of the three specific aspects of well-being (evaluative, hedonic, and eudaimonic). The purpose of exploring well-being in adult development, including middle-age and older adulthood, is to gain a better understanding of

what affects these age groups both negatively and positively. In particular, research has revealed that higher levels of psychological (e.g., hedonic) well-being is associated with better health outcomes (e.g., cognitive performance, mental health; Cook et al., 2017; Hao, 2008) in older adults. When examining well-being, there are multiple aspects to consider, such as physical functioning, and social activity, which taps into aspects of well-being (e.g., eudaimonic) that are beyond psychological well-being. In other words, it is important to conduct research that uses a multi-proxy approach given the multiple characteristics that comprise well-being.

Social Engagement & Benefits of Social Engagement in Adults

In today's research there has been a growing consensus that social engagement is important to successful aging (Mendes et al., 2005). Social engagement, also known as social participation and social involvement, is defined in research as a degree of participation in society and/or community (Zunzunegui et al., 2003). The importance of social engagement is more essential now than ever before, with the uptick in digital engagement (e.g., social media communication) and loss of face-to-face interactions (Czaja, 2017). A survey reported that 73.7% of their participants reported no face-to-face engagement during the week the survey was conducted (Newson et al., 2021). This study reveals the importance of in-person social engagement. The current older generation has grown up during a time period with greater opportunities to engage in face-to-face interactions. Unlike the current younger generations, older adults were not exposed nor had to use the same technological modalities for social communication (e.g., Twitter, Facebook, Tiktok) at an early age. Thus, older generations have had more experience across their life course with face-to-face opportunities for social

engagement. Although technology has created some challenges (e.g., social isolation and loneliness) with social engagement in our larger society (Locsin et al., 2021), these challenges are more enhanced for the adult community. Adults' health depends on some type of social engagement. For example, while older adults' face-to-face social engagement is associated with promoting a better well-being (Newson et al., 2021), a lack in social engagement (i.e., digital contact) is associated with worse levels of well-being (Newson et al., 2021). Prior research typically assesses community engagement through a series of qualitative methods which is a time consuming and less accessible way to collect data on a large scale (Goodman et al., 2013).

Social engagement has shown to be an important predictor of older adults' physical health (Winstead, 2014). Specifically, Cherry et al. (2013) conducted a study connected to the Louisiana Healthy Aging Study which further explored the practical applications of social engagement in adults ranging from 21 to 97 years of age. Study findings indicated an association between healthy positive behaviors and social engagement activities, (e.g., amount of time spent outside of the adults' home, clubs, and other activities; Cherry et al., 2013). However, few studies have examined how adults' (including middle-aged adults) social engagement relates to their well-being. It is important to further implement research into how engagement relates to well-being, especially during the height of the COVID-19 pandemic when limited in-person social interactions were occurring. Middle-aged and older adults were the most vulnerable to this infectious disease, making personal engagement not accessible (D'cruz & Banerjee, 2020).

The positive connection between social engagement and well-being is supported by the Activity Theory of Aging, which suggests that adults who engage in social and leisure activities are more inclined to age successfully (Winstead et al., 2014). This framework includes three distinct categories of activity (i.e., formal, informal, and solitary activities; Winstead, 2014).

Training courses are an example of formal activities, while reading, writing, and mentoring are examples of informal and solitary activities. Prior research has supported this framework in older adult populations in that older adults' greater participation in social and leisure activity was associated with greater positive reports of well-being (Adams et al., 2011; Everard, 1999). For example, Blace (2012) suggested that several factors, such as poor health, physical decline, and economic anxiety, were associated with life satisfaction, a metric of evaluative wellbeing. Findings from another study suggested that retired men participating in social activity engagement (e.g., social clubs) can result in a higher level of overall well-being (Beck & Page, 1988). Additionally, Greaves & Farbus (2006) identified that older adult participants with higher overall well-being also had a higher amount of social participation. Lastly, Matz-Costa (2014) explored activity engagement, particularly civic engagement, within 330 older adults and observed higher levels of overall well-being being related to higher levels of engagement. Importantly, study findings suggested that even one social activity is related to a higher level of psychological well-being (Matz-Costa, 2014).

Some literature has indicated that social support, which may be considered a reason for the observed associations between social activity engagement and well-being, was not necessarily associated with older adults' well-being (Sobering, 2022). Specifically, Sharifian and Grün (2019) observed that older adults with higher psychological well-being tended to be more engaged in social activities; however, the study identified that social support was not associated with psychological well-being in middle to older adults. These findings suggest that benefits of social engagement activities may not be attributed to the social support an adult may provide or receive from other individuals involved in the same activities. Given these observations, further research is warranted to better understand the association between social engagement and well-

being. For instance, the literature is unclear as to what aspects of social engagement, such as engagement directly with family/friends (personal) or with community resources (e.g., volunteering), might be associated with well-being.

Gaps in Existing Literature for Social Engagement and Well-Being

Prior research has emphasized the role of social engagement within communities. Findings related to community engagement identified that social engagement, especially in middle to older adulthood, is essential to community mobility and their well-being (Zhang et al., 2022). The research model of social engagement, i.e., Bronfenbrenner Ecological Systems Theory, highlights relationships an individual encompasses within their micro-systems and macro-systems. Subcomponents of social engagement which can include (a) personal social engagement, such as engagement within the micro-system (Bronfenbrenner, 1979) with family and friends (e.g., planned dinner events) and (b) community social engagement, such as engagement within the macro-system (e.g., park clean-up; Bronfenbrenner, 1979).

Much of the present literature focuses on community social engagement in relation to an individual's macro-system, which presents a potential gap in our understanding of the role of the micro-system in well-being. Even within research focused on community social engagement, much of the research focuses on well-being when participating in volunteer activities (Morrow-Howell et al., 2003). On average, an estimate of 23.2 % of American adults formally volunteer a year (AmeriCorps, 2022). However, limited current research has examined the association between volunteerism and well-being across diverse communities in terms of race/ethnicity and socioeconomic status (e.g., income). In particular, studies have included population samples who

are highly educated and/or who have high-income levels (Cherry et al., 2013). Less research seems to focus on other community forms of social engagement that go beyond volunteerism. For example, adults have shown to participate in continuing education programs (Graney, 1980). However, limited research has examined the association between participation in continuing education courses and well-being.

Limited literature has explored the association between personal engagement (within an individual's micro-system) and adults' well-being. Literature has tapped into examining adult engagement but within the context of a workplace setting. Literature reveals well-being in adults is influenced by work engagement (Malinowski et al., 2015). Specifically, Malinowski et al. (2015) revealed that incorporating mindfulness techniques into work relationships resulted in increased levels of positive well-being in adults. However, exploration of adult engagement beyond the workplace setting (e.g., social engagement with family and friends) can be useful for identifying a variety of understudied attributes of positive well-being in this population and could be beneficial in minimizing the risk of negative health outcomes.

Significance of the Social Engagement and Well-being Association

Engagement and its relation to well-being both on a personal and community level can lead to a better understanding of public health. The topic addresses how community engagement can promote a healthier state of well-being. The focus on personal level of engagement can further provide the mental health field with a better understanding of how people's home atmosphere can affect their state of well-being. With new research conducted on this topic, investigators can evaluate how engagement fosters better focus, awareness, flexibility, and

problem-solving skills while also making the individual healthier. A longitudinal study indicated that adults with high levels of social participation showed a less steep decline in well-being across 3 years than individuals with low levels of social participation (Sharifian & Gröhn, 2019). This study's findings provide further credibility that engagement is an important aspect to adults' well-being.

The question of how social engagement relates to well-being can result in findings that will contribute to the fields of health and human development as well as clinical psychology. Significant results can be used to further gain knowledge of the importance of engagement and social interaction for adults' well-being. As a result, potential interventions can be developed to further help the aging population through the incorporation of activities in communities that offer engagement with both younger and older adult populations. Thus, the current thesis focuses on this promising but underexplored area of research.

The Present Study

The purpose of this study was twofold. The first study aim was to examine how personal social engagement (e.g., family and friends) relates to well-being. It was hypothesized that greater social engagement within one's micro-system (e.g., family and friends) is related to better well-being in adults. The second study aim was to explore whether psychological well-being varies by using community social engagement resources within one's macro-system (e.g., involvement in adult educational courses and volunteering opportunities). It was hypothesized that better well-being will be observed particularly for adults participating in continuing education or volunteering.

Chapter 2

Methods

Data

This study leverages data from Tailoring Environment for Active Life Engagement 2.0 (TEALE 2.0) study. The TEALE 2.0 study collected data from a geographically diverse sample of United States middle to older adults. The study was designed to gather information on perceptions of social engagement, community resources, health, and well-being. Data collection occurred in December 2022, via Qualtrics Software.

Procedure

Data were collected via Qualtrics Panels, a survey management service in which participants who met specified eligibility criteria were recruited and compensated within the Qualtrics platform. Participants received compensation directly through the Qualtrics platform and were informed of compensation details prior to providing informed consent. After providing informed consent and completing a brief (~1 minute) screening survey, eligible participants completed an online survey that took approximately 45 minutes to complete and were compensated via Qualtrics. This study was approved by the Clemson University Institutional Review Board.

Measures

This study utilized measures on health and wellness, personal and community engagement, and demographic characteristics of the sample.

Correlates of Well-being.

Well-being is a broad concept which includes various facets. As such, prior literature has identified an array of correlates that comprise well-being (Linton et al., 2016). The identified indicators of well-being included in current study were (a) overall well-being as well as several factors of well-being such as (b) instrumental activity of daily living (IADL), (c) depressive symptoms, (d) sleep disturbances, and (e) cognitive function.

Overall Well-being. Well-being was assessed via the Patient-Reported Outcomes Measurement Information System (PROMIS) Positive Affect and Well-being item bank (Cella et al., 2007). Participants responded using a 5-point Likert scale to indicate the degree to which they agreed or disagreed with 4 statements. The scale asked participants statements like, “My life has meaning” and “I experienced deep fulfillment in life.” Participants were given response options to these items that ranged from 1 (Not at all) to 5 (Very much). Participants were also given the option to respond “Prefer not to say (6).” A total score was initially calculated by summing responses across the items, and this score was converted to standardized T-scores with a mean of 50 and standard deviation (SD) of 10. According to the PROMIS scale guidelines (HealthMeasures, n.d.), higher T-scores for well-being reflected higher overall well-being.

Instrumental Activity of Daily Living (IADL). Instrumental activity of daily living (IADL) was assessed using a 4-item from the PROMIS Physical Function item bank (Cella et al., 2007). The 4 items included: (1) “Are you able to do your chores such as vacuuming or yard work?”,

(2) “Are you able to go up and down the stairs at a normal pace?”, (3) “Are you able to go for a walk of at least 15 minutes?”, and (4) “Are you able to run errands and shop?”. A 5-point Likert scale indicated the degree to which they could perform the various daily activities. Response options to these items ranged from 1(Without any difficulty) to 5 (Unable to do). Participants were also given the option to respond “Prefer not to say (6).” A total score was initially calculated by summing responses across the items, and this score was converted to standardized T-scores with a mean of 50 and standard deviation (SD) of 10. According to the PROMIS scale guidelines (HealthMeasures, n.d .), higher T-scores for IADLs reflected better overall IADLs.

Depressive Symptoms. Depressive symptoms were assessed using 4 items from the PROMIS Depression item bank (Cella et al.,2010). Participants were expected to evaluate their depression symptoms within the past 7 days using a 5-point Likert scale. Items included: (1) “I felt worthless”, (2) “I felt helpless”, (3) “I felt depressed”, and (4) “I felt hopeless”. Response options to these items ranged from 1(Never) to 5 (Always). Participants were also given the option to respond “Prefer not to say (6).” A total score was initially calculated by summing responses across the items, and this score was converted to standardized T-scores with a mean of 50 and standard deviation (SD) of 10. According to the PROMIS scale guidelines (HealthMeasures, n.d .), higher T-scores for depressive symptoms reflected worse overall depressive symptomology.

Sleep Disturbances. Participants responded to 4 questions from the PROMIS Sleep Disturbance and Related Impairment item bank (Buysse, 2010). One item assessed overall sleep quality within the past 7 days using a 5-point Likert scale, 1 (Very poor) to 5 (Very good). The remaining 3 items also assessed sleep quality within the past 7 days included items like, “My sleep was refreshing”, “I had a problem with my sleep”, and “I had difficulty falling asleep”.

Response options to these items ranged from 1(Not at all) to 5 (Very much). For all sleep items participants were given the option to choose “Prefer not to say (6)”. A total score was initially calculated by summing responses across the items, and this score was converted to standardized T-scores with a mean of 50 and standard deviation (SD) of 10. According to the PROMIS scale guidelines (HealthMeasures, n.d .), higher T-scores for sleep disturbances reflected worse overall sleep disturbances.

Cognitive Function. Cognitive function was assessed using select items from the PROMIS Cognitive Function item bank (Cella, 2010). Participants responded to 4 questions about the level of cognitive difficulty when completing specific tasks. Example items included “Keeping track of time (e.g., using a clock)?”, “Managing your time to do most of your daily activities?”, “Planning an activity several days in advance (e.g., a meal, trip, or visit to friends)?”, with response options ranging from 1(None) to 5 (Cannot do). Participants were also given the option to respond, “Prefer not to say (6).” A total score was initially calculated by summing responses across the items, and this score was converted to standardized T-scores with a mean of 50 and standard deviation (SD) of 10. According to the PROMIS scale guidelines (HealthMeasures, n.d .), higher T-scores for cognitive function reflected better overall cognitive health.

Personal Social Engagement

Personal Social Engagement. Personal social engagement was assessed using one item where participants were asked a question about their engagement within their microsystem (i.e., children, grandchildren, friends, neighbors, and housing maintenance workers). For each personal engagement contact, participants selected how often they typically communicated with

this particular contact. Participants indicated their level of engagement on a scale from 1(Never) to 5 (Daily). Respondents were also given the option to select “Not applicable.”

Community Social Engagement (social resources). Community social engagement was assessed using 2 items, i.e., continuing education and volunteering. Participants responded to these items using a tertiary response choice, 1 = “Yes”, 2 = “No”, and 3 = “Prefer not to say”.

Statistical Approach

Missing values were assigned to all responses where participants’ selected “not applicable” or “prefer not to say”. Descriptive statistics were conducted to explore the demographic, correlates of well-being, and social engagement characteristics of the sample. For Aim 1, Pearson correlations were run to examine the relationship between correlates of well-being and personal social engagement. Next, stepwise regression models were conducted to further test the association between each correlate of well-being and personal social engagement. In first step of the regression models, all the personal social engagement contacts were entered to explore which contact (e.g., family, friend, neighbor) was uniquely associated with overall well-being as well as each tested factor of well-being (e.g., depression and cognition). In the second step of the regression models, covariates of age, sex, and race were included to further explore if the associations observed in the first step of the regression models remained significant after adjusting for covariates. For Aim 2, one-way analysis of variance (ANOVA) tests were conducted to examine the differences in the correlates of well-being between adults reporting community social engagement (e.g., volunteering) compared to adults not reporting community engagement even after adjusting for covariates. Analyses were performed using SPSS version 29.0.0.0 (241).

Chapter 3

Results

Descriptive statistics

The study included a racially diverse sample of 560 middle to older adults. Participants ranged in age from 40 to 92 ($M = 18.45$, $SD = 11.89$). The majority of the sample identified as female ($n = 283$; 50.2%). The participant sample had 1 to 21 years of education ($M = 13.74$, $SD = 3.69$) and 3.87% of participants reported a monthly gross income of \$2400 to \$2500. Participants varied on how often they typically communicated with children ($M = 3.96$, $SD = 1.35$), grandchildren ($M = 3.00$, $SD = 1.46$), friends ($M = 3.81$, $SD = 1.01$), neighbors ($M = 3.57$, $SD = 1.17$), and housing maintenance workers ($M = 2.51$, $SD = 1.24$). These forms of social engagement range from 1 (never) – 5 (daily). Additionally, individuals were more likely to report not participating in continuing education ($n = 430$, 76.2%) and not volunteering ($n = 400$, 70.9%). For the factors of well-being participants generally reported higher indices of well-being ($M = 51.62$, $SD = 12.07$) and cognitive function ($M = 53.91$, $SD = 10.58$), but also tended to report slightly higher mean levels of depressive symptoms ($M = 52.55$, $SD = 10.25$) compared general population comparative means (HealthMeasures, n.d.). Contrastingly, participants reported lower levels of sleep disturbances ($M = 49.75$, $SD = 10.51$) and less difficulty with instrumental activities of daily living ($M = 48.21$, $SD = 9.36$). See Table 1 for more details.

Personal Social Engagement and Overall Well-Being.

A significant positive association was observed between overall well-being and social engagement with children ($r = 0.20, p < .01$; Table 2), grandchildren ($r = 0.22, p < .01$), friends ($r = 0.22, p < .01$), neighbors ($r = 0.30, p < .01$), and housing maintenance workers ($r = 0.20, p < .01$). In general, participants who reported higher levels of well-being were more socially engaged. Linear regression results indicated that high well-being was significantly and uniquely associated with high social engagement with neighbors ($\beta = 0.36, SE = 0.83, p < .001$; Table 3). When covarying for age, sex, and race, linear regression results remained significant for this association ($\beta = 0.36, SE = 0.85, p < .001$).

Personal Social Engagement and Instrumental Activities of Daily Living.

Pearson correlation results demonstrated that social engagement with children ($r = 0.13, p < .01$; Table 2), friends ($r = 0.10, p < .05$), and neighbors ($r = 0.09, p < .05$) were significantly and positively associated with instrumental activities of daily living. Specifically, individuals reporting higher levels of social engagement had better instrumental activities of daily living (IADLs). Linear regression results did not indicate an association between any of the social engagement variables after adjusting for covariates (see Table 4). However, there was significant association between race and IADL ($\beta = 0.19, SE = 0.80, p < .05$), which suggested that non-Hispanic White adults tended to have better IADLs than other racial/ethnic groups.

Personal Social Engagement and Depressive Symptoms.

A significant negative association was observed between social engagement with neighbors and depressive symptoms ($r = -0.20, p < .01$; Table 2). Participants reporting higher levels of social engagement with neighbors reported experiencing fewer depressive symptoms. Linear regression results also indicated that participants reporting higher levels of social engagement with their neighbors was associated with lower levels of depressive symptoms even after controlling for covariates ($\beta = -0.27, SE = 0.75, p < .01$; see Table 5). Additionally, the regression model indicated that increased age ($\beta = -0.35, SE = 0.06, p < .001$) and non-Hispanic White race ($\beta = -0.23, SE = 0.80, p < .01$) were significantly associated with fewer depressive symptoms.

Personal Social Engagement and Sleep Disturbances.

A significant negative association was observed between sleep disturbances and social engagement with friends ($r = -0.14, p < .01$) and neighbors ($r = -0.19, p < .01$; Table 2). Participants reporting higher levels of social engagement with friends and neighbors reported experiencing less sleep disturbances. Linear stepwise regression results, using standardized estimates, indicated that participants reporting higher levels of social engagement with their neighbors was significantly and uniquely associated with lower levels of sleep disturbances even after controlling for social engagement with friends and other individuals ($\beta = -0.27, SE = 0.78, p < .05$). The association between social engagement with neighborhoods and sleep disturbances remained significant in the model also adjusting for age, sex, and race ($\beta = -0.23, SE = 0.79, p <$

.05; see Table 6). Additionally, the regression model indicated that increased age ($\beta = -0.16$, $SE = 0.07$, $p < .05$) were significantly associated with less sleep disturbances.

Personal Social Engagement and Cognitive Function.

No significant associations were observed between any social engagement individuals and cognitive function (Table 2). Linear regression results indicated that participants reporting higher levels of social engagement with house maintenance workers was significantly and uniquely associated with worse cognitive function even after controlling for social engagement with other individuals ($\beta = -0.18$, $SE = 0.80$, $p < .05$). However, this association was no longer significant after also adjusting for age, sex, and race (see Table 7).

Community Social Engagement (Continuing Education) Differences in Depressive Symptoms and Cognitive Function.

Analysis of variance (ANOVA) indicated that there was no significant differences between adults participating in continuing education courses and adults not participating in continuing education courses for overall well-being ($F(1,493) = 2.52$, $p > .05$) and any of the factors related to well-being [IADLs ($F(1,493) = 0.91$, $p > .05$), depressive symptoms ($F(1,492) = 0.03$, $p > .05$), sleep disturbances ($F(1,494) = 1.39$, $p > .05$), cognitive function ($F(1, 494) = 2.37$, $p > .05$); see Figure 1].

Community Social Engagement (Volunteering) Differences in Overall Well-Being, Depressive Symptoms, and Cognitive Functioning.

After adjusting for age, sex, and race, ANOVAs indicated that there were significant differences between adults volunteering and adults not volunteering on well-being ($F(2, 497) = 5.57, p < .01$) and cognitive function ($F(2,498) = 6.61, p < .01$). Specifically, compared to adults not volunteering, adults volunteering in the community tended to have better overall well-being (volunteering Mean = 55.17 vs. non-volunteering Mean = 50.81), but worse cognitive function (volunteering Mean = 52.46 vs. non-volunteering Mean = 54.49; Figure 2). In contrast, there was no significant differences between adults volunteering and adults not volunteering on IADLs ($F(2,496) = 1.26, p > .05$), depressive symptoms ($F(2,496) = 0.70, p > .05$), and sleep disturbances ($F(2,498) = 2.17, p > .05$; Figure 2).

Chapter 4

Discussion

Brief Overview of Significant Observations

The purpose of this preliminary study was to explore how personal and community engagement is associated with well-being in adults. In line with our hypotheses, personal social engagement with children, grandchildren, friends, neighbors, and housing maintenance workers were associated with well-being. Likewise, a study evaluating adults with and without children in the home revealed that stay-at-home adults with children experienced more daily pleasures (e.g., joy) (Deaton et al., 2014). However, after adjusting for covariates, our study findings indicated that the association only remained with neighbors. This unique association between social engagement and neighbors is supported by findings from Howley et al. (2015). Specifically, subjective well-being has been linked to frequent interaction with friends and neighbors. This finding could be attributed to feelings of comfort and behavioral confirmation (i.e., respect and social approval from neighbors within a community is considered highly valuable to older people; Nieboer & Cramm, 2018). Similarly, social engagement with children, friends, and neighbors were associated with instrumental activities of daily living. Seifert & König (2019) observed that older adults' social engagement with neighbors was related to their IADLs. Furthermore, this association is particularly important for older adults with limited functional capabilities (e.g., mobility, communication, and self care), who may also need assistance from their neighbors to perform activities of daily living. In fact, Qin et al. (2021) and colleagues observed in 7,407 participants from the National Health and Aging Trend Study that

neighborhood cohesion (e.g., neighbors knowing each other well, helping each other, and trusting each other) was beneficial for older adults' ability to perform activities of daily living. Furthermore, social engagement with neighbors was negatively associated with depression. Research suggests that bonds with people, such as neighbors, can help suppress vulnerability to depressive symptoms in older adults (Howley et al., 2015). Interestingly, after controlling for covariates, participants reported lower levels of depressive symptoms when specifically engaging with neighbors. Specifically, participating with neighbors in social gatherings (e.g., religious services, movies, and sport events) was related to a decrease in depressive symptom" (Min et al., 2016). The current study's findings also revealed that social engagement with neighbors was significantly associated with lower levels of sleep disturbances, and this association uniquely remained after controlling for friends and other individuals. The current study's findings appear to be consistent with prior literature that has observed older adults' increased social engagement (e.g., religious attendance) was associated with better sleep quality (Chen et al., 2016). However, the current study's cross-sectional design limits the ability to determine the directionality of the association between social engagement and sleep. Specifically, future longitudinal research can help determine the extent to which social engagement may lead to better sleep health or the extent to which constant good sleep health sustains high levels of social engagement.

Partially in line with the second study hypothesis, the current study observed significant differences between group means on overall well-being and factors of well-being in terms of community engagement. Specifically, compared to adults not volunteering, adults volunteering in the community resulted in better overall well-being, but worse cognitive function. These findings are supported by literature, which suggests more hours of volunteering results in higher

levels of positive well-being in adults (Morrow-Howell et al., 2003). Literature also reveals correlations between adults' cognitive function and volunteerism. Consistent with the current study's findings, adults with better health and cognitive functioning appeared to volunteer less over time (Ra, 2015). It was suggested in prior literature that this counterintuitive observation could reflect individuals engaging in volunteerism as a distraction from coping with their poor mental health, which may worsen their overall health and well-being (Ra, 2015; Mo et al., 2022). The current study found nonsignificant findings in relation to the effect of continuing education on well-being, IADL, depressive symptoms, sleep disturbances, and cognitive function. A potential reason for these non-significant findings is that there is a low percentage of participants (12%) engaging in this activity. With having a low percentage of participants taking continuing education courses, it could have been more difficult to detect these differences. However, future research should continue exploring how older adults' participation in continuing educational courses relates to their well-being. In fact, promising evidence from a case study of older adults in Canada suggests that accessible and affordable continuing education programs were perceived by older adults as beneficial for self-assurance, self-efficacy, and life satisfaction, factors relevant to well-being (Narushima, 2008). Narushima (2008) further suggested that more work is needed to explore the influence of continuing education programs on health and quality of life among older adults.

Limitations

Although our study revealed interesting findings about the association between social engagement and correlates of well-being, a few study limitations should be noted. Primarily, all analytic models were conducted using cross sectional data which limits the ability to detect whether social engagement relates to changes in overall well-being and factors of well-being

(e.g., IADL and sleep disturbances). Secondly, there may be other methods that better capture an individual's level of social engagement and well-being. Prior studies have captured well-being using a more comprehensive scale that addresses the depth of three core models of well-being (negative cognitive triad of thoughts about self, world and future; Kinderman et al., 2011). Using a more comprehensive scale of well-being can enhance our understanding of the association between social engagement and well-being in middle to older adults. Lastly, the findings for the current study may not be generalizable to all middle and older adult populations given they were recruited online and asked to complete an online survey. These findings may not be inclusive of all individuals because some middle to older adults do not have access to a computer and internet services and/or may have difficulty using technology to successfully participate in the current study.

Conclusion

It is important to further implement research into how engagement relates to well-being, especially during the COVID-19 pandemic. At the height of the pandemic, adults across the United States were facing adjustments to limited in-person social interactions. Furthermore, middle age and older adults were the most vulnerable to this infectious disease (Mayo Clinic, 2022), making personal engagement not accessible. Protecting adults' health came at the cost of satisfying their levels of well-being. This pandemic could have lasting effects not only on the current generations' well-being but also future generations' well-being. The research pertaining to social and personal engagement is particularly important due to changes in level and quality of engagement since the start of the pandemic and as pandemic progressed (De Pue et al., 2021). The rapidly growing and evolving field of health and human development can use these significant findings to strengthen educational programs for future helping professionals working

with middle to older adults. Aging is inevitable for the present and future generations. Thus, having information that promotes well-being in adults is greatly advantageous. The significant findings in regard to our study can help advance the healthcare field. For example, more trained professionals who can assist adults with strengthening their social engagement skills and opportunities can be a useful tool for healthy aging. Future research is necessary in narrowing the gaps of existing literature and revealing significant avenues to gain more complete knowledge on personal and social engagement on well-being in adults.

Figures

Figure 1. Effect of continuing education on overall well-being and well-being factors.

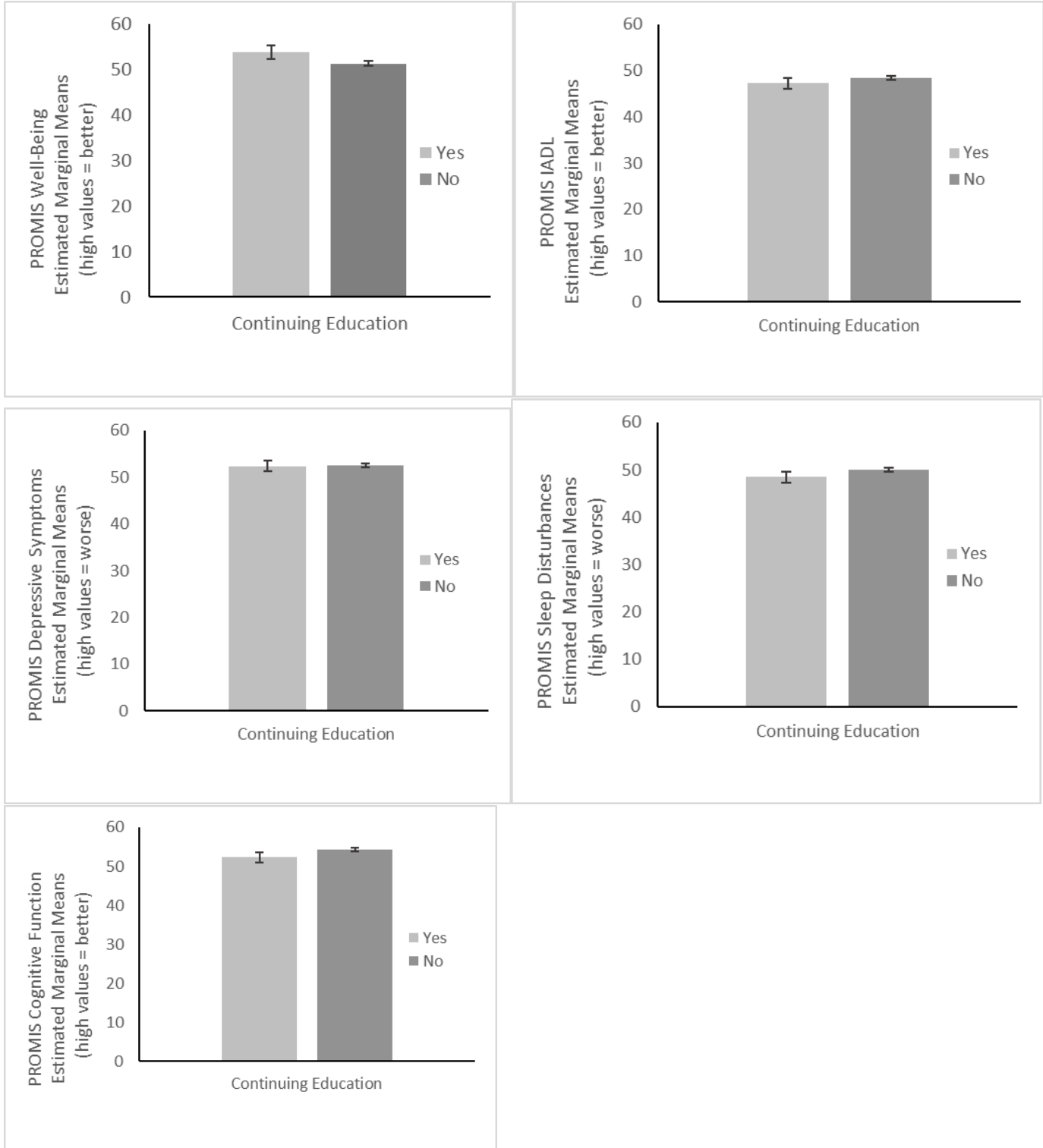
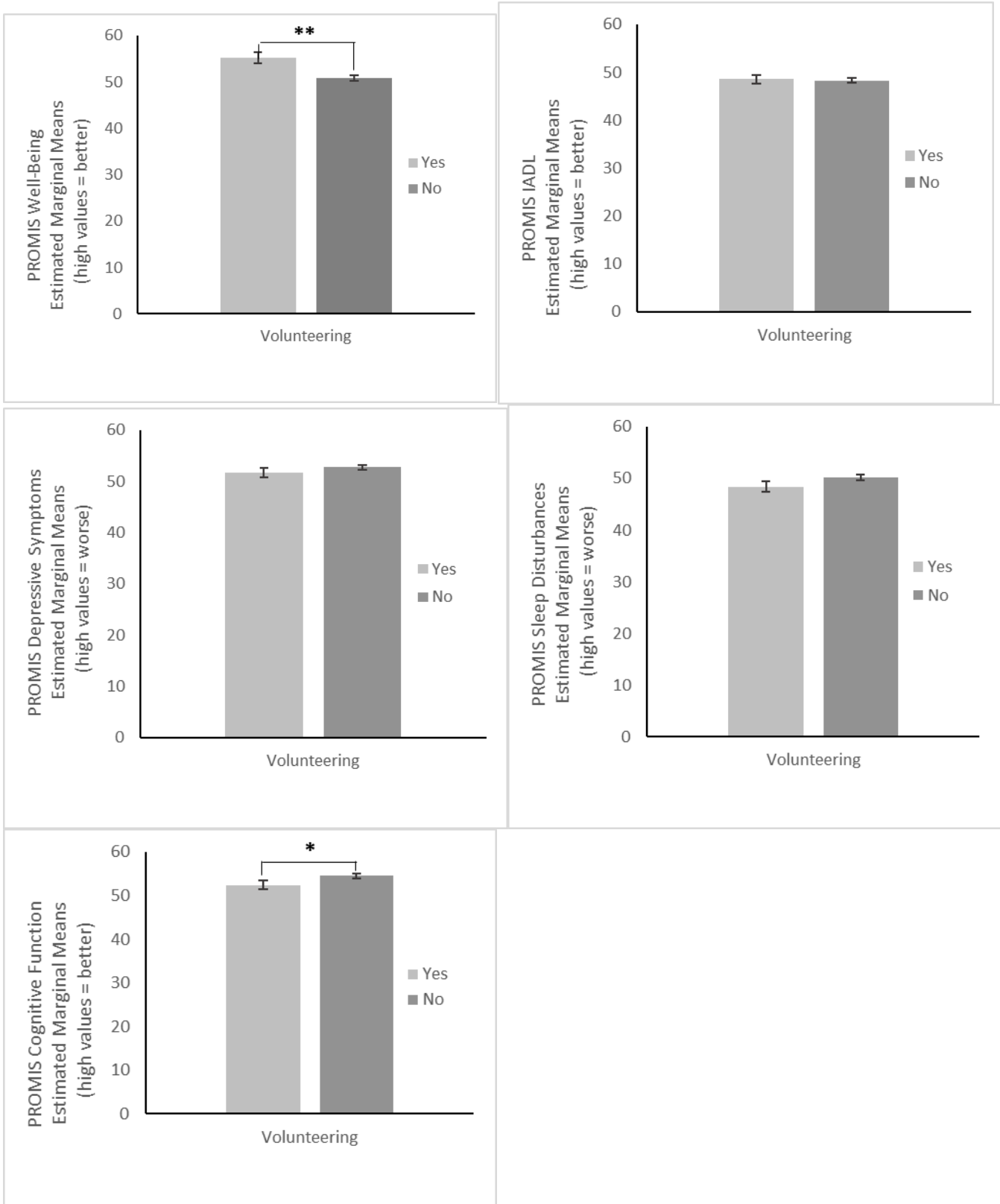


Figure 2. Effect of volunteering on overall well-being and well-being factors.



Tables

Table 1.

Demographic characteristics of the sample.

	<i>N (%)</i>	<i>Mean</i>	<i>Std Dev</i>	<i>Range</i>
Age	560	18.45 (59 years old)	11.89	40 – 92
Sex				
Male	274 (48.6%)			
Female	283 (50.2%)			
Non-binary/ Third gender	1 (0.2%)			
Race				
White	331 (58.7%)			
Black	63 (11.2%)			
Hispanic	107 (19.0%)			
Asian	26 (4.6%)			
Other	11 (2.04%)			
Education	536	13.74	3.69	1 – 21
Gross Household Income	542	25.15 (\$2400 to \$2500)	13.98	1 – 46
Social Engagement				
Children	398	3.96	1.35	1 – 5
Grandchildren	257	3.00	1.46	1 – 5
Friends	483	3.81	1.01	1 – 5
Neighbors	475	3.57	1.17	1 – 5
House Maintenance Workers	308	2.51	1.24	1 – 5
Continuing Education				
Yes	69 (12.2%)			
No	430 (76.2%)			
Volunteering				
Yes	98 (17.4%)			
No	400 (70.9%)			
Well-being	524	51.62	12.07	21 – 66
Instrumental Activities of Daily Living (IADL)	524	48.21	9.36	23 – 57
Depressive Symptoms	521	52.55	10.25	41 – 79
Sleep Disturbances	521	49.75	10.51	32 – 73
Cognitive Function	521	53.91	10.58	16 – 62

Table 2.

Correlations among facets of well-being, personal engagement, and demographic characteristics.

	Well-being	IADL	Depressive Symptoms	Sleep Disturbances	Cognitive Function
Demographics					
Age	0.06	-0.02	-0.34**	-0.24**	0.34**
Sex	0.03	-0.09*	0.18**	0.15**	-0.07
Race	0.03	0.01	0.09*	0.08	-0.09*
Social Engagement					
Children	0.20**	0.13**	-0.04	-0.02	-0.00
Grandchildren	0.22**	0.06	-0.07	-0.07	0.07
Friends	0.22**	0.10*	-0.08	-0.14**	0.01
Neighbors	0.30**	0.09*	-0.20**	-0.19**	0.04
House Maintenance Workers	0.20**	-0.06	-0.07	-0.09	-0.11

Note: * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.

Multiple linear regression models to examine relationship between social engagement and well-being.

	Well-being	
	Model 1	Model 2
Social Engagement		
Children	0.07 (0.68)	0.07 (0.68)
Grandchildren	0.07 (0.68)	0.05 (0.73)
Friends	0.06 (0.88)	0.07 (0.89)
Neighbors	0.36 (0.83)***	0.36 (0.85)***
Maintenance workers	0.02 (0.72)	0.01 (0.72)
Demographic Covariates		
Age		0.03 (0.07)
Sex		0.04 (1.94)
Race		0.10 (0.90)
R ²	0.19	
R ² change	0.20	0.01
Obs	170	170

Note: * $p < .05$. ** $p < .01$. *** $p < .001$. Model 1 is linear regression models testing for main effects. Model 2 is linear regression models adjusting for demographic covariates. Numeric values represent standardized coefficients (standard errors). Obs represents number of observations/participants included in the model.

Table 4.

Multiple linear regression models to examine relationship between social engagement and instrumental activities of daily living (IADL).

Instrumental Activities of Daily Living (IADL)		
	Model 1	Model 2
Social Engagement		
Children	0.14 (0.61)	0.14 (0.60)
Grandchildren	-0.04 (0.61)	-0.00 (0.64)
Friends	0.08 (0.80)	0.10 (0.80)
Neighbors	0.15 (0.77)	0.13 (0.77)
Maintenance workers	-0.14 (0.65)	-0.15 (0.65)
Demographic Covariates		
Age		0.01 (0.07)
Sex		-0.12 (1.72)
Race		0.19 (0.80)*
R ²	0.06	
R ² change	0.09	0.04
Obs	169	169

Note: * $p < .05$. ** $p < .01$. *** $p < .001$. Model 1 is linear regression models testing for main effects. Model 2 is linear regression models adjusting for demographic covariates. Numeric values represent standardized coefficients (standard errors). Obs represents number of observations/participants included in the model.

Table 5.

Multiple linear regression models to examine relationship between social engagement and depressive symptoms.

	Depressive Symptoms	
	Model 1	Model 2
Social Engagement		
Children	-0.07 (0.64)	-0.08 (0.60)
Grandchildren	0.08 (0.65)	0.09 (0.64)
Friends	0.02 (0.83)	-0.04 (0.79)
Neighbors	-0.33 (0.78)***	-0.27 (0.75)**
Maintenance workers	0.04 (0.68)	0.02 (0.64)
Demographic Covariates		
Age		-0.35 (0.06)***
Sex		0.09 (1.71)
Race		-0.23 (0.80)**
R ²	0.10	
R ² change	0.22	0.13
Obs	170	170

Note: * $p < .05$. ** $p < .01$. *** $p < .001$. Model 1 is linear regression models testing for main effects. Model 2 is linear regression models adjusting for demographic covariates. Numeric values represent standardized coefficients (standard errors). Obs represents number of observations/participants included in the model.

Table 6.

Multiple linear regression models to examine relationship between social engagement and sleep disturbances.

	Sleep	
	Model 1	Model 2
Social Engagement		
Children	-0.12 (0.64)	-0.12 (0.63)
Grandchildren	0.03 (0.65)	0.01 (0.68)
Friends	-0.10 (0.83)	-0.13 (0.83)
Neighbors	-0.27 (0.78)*	-0.23 (0.79)*
Maintenance workers	0.12 (0.68)	0.11 (0.67)
Demographic Covariates		
Age		-0.16 (0.07)*
Sex		0.10 (1.81)
Race		-0.11 (0.84)
R ²	0.11	
R ² change	0.15	0.04
Obs	170	170

Note: * $p < .05$. ** $p < .01$. *** $p < .001$. Model 1 is linear regression models testing for main effects. Model 2 is linear regression models adjusting for demographic covariates. Numeric values represent standardized coefficients (standard errors). Obs represents number of observations/participants included in the model.

Table 7.

Multiple linear regression models to examine relationship between social engagement and cognitive function.

	Cognition	
	Model 1	Model 2
Social Engagement		
Children	-0.05 (0.75)	-0.04 (0.61)
Grandchildren	0.07 (0.76)	0.03 (0.66)
Friends	-0.04 (0.98)	0.01 (0.82)
Neighbors	0.13 (0.93)	0.08 (0.89)
Maintenance workers	-0.18 (0.80)*	-0.15 (0.75)
Demographic Covariates		
Age		0.39 (0.08)***
Sex		-0.02 (2.03)
Race		0.12 (0.94)
R ²	0.03	
R ² change	0.17	0.14
Obs	170	170

Note: * $p < .05$. ** $p < .01$. *** $p < .001$. Model 1 is linear regression models testing for main effects. Model 2 is linear regression models adjusting for demographic covariates. Numeric values represent standardized coefficients (standard errors). Obs represents number of observations/participants included in the model.

BIBLIOGRAPHY

- Adams, K. B., Leibbrandt, S., & Moon, H. (2011). A critical review of the literature on social and leisure activity and wellbeing in later life. *Ageing & Society*, *31*(4), 683-712.
- Adler, A., Unanue, W., Osin, E., Ricard, M., Alkire, S., & Seligman, M. (2017). Psychological wellbeing. *Happiness*, 118.
- AmeriCorps. (n.d.). Volunteering and civic life in America.
<https://americorps.gov/about/ourimpact/volunteering-civic-life>
<https://americorps.gov/about/ourimpact/volunteering-civic-life>
- Beck, S. H., & Page, J. W. (1988). Involvement in activities and the psychological well-being of retired men. *Activities, Adaptation & Aging*, *11*(1), 31-47.
https://doi.org/10.1300/J016v11n01_04
- Bennett, K. M. (2005). Social engagement as a longitudinal predictor of objective and subjective health. *European Journal of Ageing*, *2*, 48-55. <https://doi.org/10.1007/s10433-005-0501-z>
- Blace, N. P. (2012). Functional ability, participation in activities and life satisfaction of the older people. *Asian Social Science*, *8*(3), 75. : <http://dx.doi.org/10.5539/ass.v8n3p75>
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Buysse, D. J., Yu, L., Moul, D. E., Germain, A., Stover, A., Dodds, N. E., Johnston, K. L., Shablesky-Cade, M. A., & Pilkonis, P. A. (2010). Development and validation of patient-reported outcome measures for sleep disturbance and sleep-related impairments. *Sleep*, *33*(6), 781–792. <https://doi.org/10.1093/sleep/33.6.781>
- Cella, D., Riley, W., Stone, A., Rothrock, N., Reeve, B., Yount, S., Amtmann, D., Bode, R.,

- Buysse, D., Choi, S., Cook, K., Devellis, R., DeWalt, D., Fries, J. F., Gershon, R., Hahn, E. A., Lai, J. S., Pilkonis, P., Revicki, D., Rose, M., Weinfurt, K, Hays, R., & PROMIS Cooperative Group (2010). The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005-2008. *Journal of Clinical Epidemiology*, *63*(11), 1179–1194.
<https://doi.org/10.1016/j.jclinepi.2010.04.011>
- Cella, D., Yount, S., Rothrock, N., Gershon, R., Cook, K., Reeve, B., Ader, D., Fries, J. F., Bruce, B., Rose, M., & PROMIS Cooperative Group (2007). The Patient-Reported Outcomes Measurement Information System (PROMIS): progress of an NIH Roadmap cooperative group during its first two years. *Medical Care*, *45*(5 Suppl 1), S3–S11.
<https://doi.org/10.1097/01.mlr.0000258615.42478.55>
- Chen, J. H., Lauderdale, D. S., & Waite, L. J. (2016). Social participation and older adults' sleep. *Social Science & Medicine* (1982), *149*, 164-17.
<https://doi.org/10.1016/j.socscimed.2015.11.045>
- Cherry, K. E., Walker, E. J., Brown, J. S., Volaufova, J., LaMotte, L. R., Welsh, D. A., Su, L. J., Jazwinski, S. M., Ellis, R., Wood, R. H., & Frisard, M. I. (2013). Social engagement and health in younger, older, and oldest-old adults in the Louisiana Healthy Aging Study. *Journal of Applied Gerontology : The Official Journal of the Southern Gerontological Society*, *32*(1), 51–75. <https://doi.org/10.1177/0733464811409034>
- Cook Maher, A., Kielb, S., Loyer, E., Connelley, M., Rademaker, A., Mesulam, M. M., Weintraub, S., McAdams, D., Logan, R., & Rogalski, E. (2017). Psychological well-being in elderly adults with extraordinary episodic memory. *PloS One*, *12*(10), e0186413.
<https://doi.org/10.1371/journal.pone.0186413>

- Czaja, S. J. (2017). The role of technology in supporting social engagement among older adults. *Public Policy & Aging Report*, 27(4), 145-148. <https://doi.org/10.1093/ppar/prx034>
- Dagenais-Desmarais, V., & Savoie, A. (2012). What is psychological well-being, really? A grassroots approach from the organizational sciences. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 13(4), 659-684. <https://doi.org/10.1007/s10902-011-9285-3>
- D'cruz, M., & Banerjee, D. (2020). 'An invisible human rights crisis': The marginalization of older adults during the COVID-19 pandemic—An advocacy review. *Psychiatry Research*, 292, 113369. <https://doi.org/10.1016/j.psychres.2020.113369>
- Deaton, A., & Stone, A. A. (2014). Evaluative and hedonic wellbeing among those with and without children at home. *Proceedings of the National Academy of Sciences*, 111(4), 1328-1333. <https://doi.org/10.1073/pnas.1311600111>
- De Pue, S., Gillebert, C., Dierckx, E., Vanderhasselt, M. A., De Raedt, R., & Van den Bussche, E. (2021). The impact of the COVID-19 pandemic on wellbeing and cognitive functioning of older adults. *Scientific reports*, 11(1), 4636. <https://doi.org/10.1038/s41598-021-84127-7>
- Everard, K. M. (1999). The relationship between reasons for activity and older adult well-being. *Journal of Applied Gerontology*, 18(3), 325-340. <https://doi.org/10.1177/073346489901800304>
- Goodman, M. S., Thompson, V. L. S., Arroyo Johnson, C., Gennarelli, R., Drake, B. F., Bajwa, P., Witherspoon, M., Bowen, D. & Bowen, D. (2017). Evaluating community engagement in research: quantitative measure development. *Journal of Community Psychology*, 45(1), 17-32. <https://doi.org/10.1002/jcop.21828>
- Graney, M. J. (1980). Participation in education among older people. *Alternative Higher Education*, 5, 71-86. <https://doi.org/10.1007/BF01080356>

- Greaves, C. J., & Farbus, L. (2006). Effects of creative and social activity on the health and well-being of socially isolated older people: outcomes from a multi-method observational study. *The journal of the Royal Society for the Promotion of Health*, 126(3), 134-142. <https://doi.org/10.1177/1466424006064303>
- Han, S., Agostini, G., Brewis, A. A., & Wutich, A. (2018). Avoiding exercise mediates the effects of internalized and experienced weight stigma on physical activity in the years following bariatric surgery. *BMC Obesity*, 5(1), 1-9. <https://doi.org/10.1186/s40608-018-01953>
- Hao, Y. (2008). Productive activities and psychological well-being among older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 63(2), S64-S72. <https://doi.org/10.1093/geronb/63.2.S64>
- Howley, P., Neill, S. O., & Atkinson, R. (2015). Who needs good neighbors?. *Environment and Planning A: Economy and Space*, 47(4), 939-956.
- Kinderman, P., Schwannauer, M., Pontin, E., & Tai, S.. (2011) The development and validation of a general measure of well-being: the BBC well-being scale. *Quality of Life Research* 20, 1035–1042 <https://doi.org/10.1007/s11136-010-9841-z>
- Locsin, R. C., Soriano, G. P., Juntasopeepun, P., Kunaviktikul, W., & Evangelista, L. S. (2021). Social transformation and social isolation of older adults: Digital technologies, nursing, healthcare. *Collegian*, 28(5), 551-558. <https://doi.org/10.1016/j.colegn.2021.01.005>
- Malinowski, P., & Lim, H. J. (2015). Mindfulness at work: Positive affect, hope, and optimism mediate the relationship between dispositional mindfulness, work engagement, and well-being. *Mindfulness*, 6, 1250-1262. <https://doi.org/10.1007/s12671-015-0388-5>

- Matz-Costa, C., Besen, E., Boone James, J., & Pitt-Catsouphes, M. (2014). Differential impact of multiple levels of productive activity engagement on psychological well-being in middle and later life. *The Gerontologist*, *54*(2), 277-289. <https://doi.org/10.1093/geront/gns148>
- Mayo Clinic (2022). COVID-19: Who's at higher risk of serious symptoms? <https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-who-is-at-risk/art-20483301>
- Mendes de Leon, C. F. (2005). Social engagement and successful aging. *European Journal of Ageing*, *2*, 64-66. <https://doi.org/10.1007/s10433-005-0020-y>
- Milton, S., Pliakas, T., Hawkesworth, S., Nanchahal, K., Grundy, C., Amuzu, A., Casas, J. & Lock, K. (2015). A qualitative geographical information systems approach to explore how older people over 70 years interact with and define their neighborhood environment. *Health & Place*, *36*, 127-133. <https://doi.org/10.1016/j.healthplace.2015.10.002>
- Min, J., Ailshire, J., & Crimmins, E. M. (2016). Social engagement and depressive symptoms: do baseline depression status and type of social activities make a difference?. *Age and Ageing*, *45*(6), 838–843. <https://doi.org/10.1093/ageing/afw125>
- Mo, T., Layous, K., Zhou, X., & Sedikides, C. Distressed but happy: health workers and volunteers during the COVID-19 pandemic. *Cult. Brain* **10**, 27–42 (2022). <https://doi.org/10.1007/s40167-021-00100-1>
- Morrow-Howell, N., Hinterlong, J., Rozario, P. A., & Tang, F. (2003). Effects of volunteering on the well-being of older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *58*(3), S137-S145. <https://doi.org/10.1093/geronb/58.3.S137>

- Narushima, M. (2008). More than nickels and dimes: The health benefits of a community-based lifelong learning programme for older adults. *International Journal of Lifelong Education*, 27(6), 673-692. <https://doi.org/10.1080/02601370802408332>
- Newson, M., Zhao, Y., Zein, M. E., Sulik, J., Dezechache, G., Deroy, O., & Tunçgenç, B. (2021). Digital contact does not promote wellbeing, but face-to-face contact does: A cross-national survey during the COVID-19 pandemic. *New Media & Society*, 14614448211062164. <https://doi.org/10.1177/14614448211062164>
- Nieboer, A.P., & Cramm, J.M. Age-Friendly Communities Matter for Older People's Well-Being. *Journal of Happiness Studies* 19, 2405–2420 (2018). <https://doi.org/10.1007/s10902-017-9923-5>
- Oliver Huxhold, Martina Miche, Benjamin Schüz, Benefits of Having Friends in Older Ages: Differential Effects of Informal Social Activities on Well-Being in Middle-Aged and Older Adults, *The Journals of Gerontology: Series B*, Volume 69, Issue 3, May 2014, Pages 366–375, <https://doi.org/10.1093/geronb/gbt029>
- Orang, S., Hashemi Razini, H., Ramshini, M., & Orang, T. (2018). Investigating the meaning of life and psychological well-being, in youth, adults, and elderly (a comparative study of three age groups). *Iranian Journal of Ageing*, 13(2), 182-197. <https://doi.org/10.32598/sija.13.2.182>
- Park, N. S. (2009). The Relationship of Social Engagement to Psychological Well-Being of Older Adults in Assisted Living Facilities. *Journal of Applied Gerontology*, 28(4), 461–481. <https://doi.org/10.1177/0733464808328606>
- Pizarro, J. (2004). The efficacy of art and writing therapy: Increasing positive mental health outcomes and participant retention after exposure to traumatic experience. *Art*

- Therapy*, 21(1), 5-12. <https://doi.org/10.1080/07421656.2004.10129327>
- Prince, M. J., Wu, F., Guo, Y., Robledo, L. M. G., O'Donnell, M., Sullivan, R., & Yusuf, S. (2015). The burden of disease in older people and implications for health policy and practice. *The Lancet*, 385(9967), 549-562. [https://doi.org/10.1016/S0140-6736\(14\)61347-7](https://doi.org/10.1016/S0140-6736(14)61347-7)
- Qin, W., Wang, Y., & Cho, S. (2021). Neighborhood social cohesion, physical disorder, and daily activity limitations among community-dwelling older adults. *Archives of Gerontology and Geriatrics*, 93, 104295. <https://doi.org/10.1016/j.archger.2020.104295>
- Ra, O. H. J. (2015). Volunteerism and Health in Older Adults. Honors Thesis, Carnegie Mellon University.
- Robinson, L. (1990). Stress and anxiety. *Nursing Clinics of North America*, 25(4), 935-943. [https://doi.org/10.1016/S0029-6465\(22\)02991-7](https://doi.org/10.1016/S0029-6465(22)02991-7)
- Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics*, 83(1), 10-28. <https://doi.org/10.1159/000353263>
- Sardina, A. L., Tan, S. C., Perry, J., & Gamaldo, A. A. (2022). A preliminary study of the correlates of leisure interests and constraints among adults residing in public housing. *Journal of Aging and Environment*, 36(2), 113-135. <https://doi.org/10.1080/26892618.2021.1887041>
- Seifert, A., & König, R. (2019). Help from and help to neighbors among older adults in Europe. *Frontiers in Sociology*, 4, 46. <https://doi.org/10.3389/fsoc.2019.00046>
- Severinsson, E., & Holm, A. L. (2015). Patients' role in their own safety—a systematic review of patient involvement in safety. *Open Journal of Nursing*, 5(07), 642. <http://dx.doi.org/10.4236/ojn.2015.57068>

- Sharifian, N., & Grünh, D. (2019). The Differential Impact of Social Participation and Social Support on Psychological Well-Being: Evidence From the Wisconsin Longitudinal Study. *International Journal of Aging & Human Development*, 88(2), 107–126.
<https://doi.org/10.1177/0091415018757213>
- Sobering, J. (2022). *Well-Being in Older Adults: The Role of Social Support and Pet Social Support* (Doctoral dissertation, Palo Alto University).
- Tokuda, Y., Doba, N., Butler, J. P., & Paasche-Orlow, M. K. (2009). Health literacy and physical and psychological wellbeing in Japanese adults. *Patient Education and Counseling*, 75(3), 411-417. <https://doi.org/10.1016/j.pec.2009.03.031>
- Zainab, N., & Naz, H. (2017). Daily living functioning, social engagement and wellness of older adults. *Psychology, Community & Health*, 6(1), 93-102.
<https://doi.org/10.23668/psycharchives.2312>
- Zhang, Y., Gao, Q., Zhai, F., & Anand, P. (2022). Income and Health in Predicting Older Adults' Social Capabilities in China: The Mediating Role of Social Engagement. *Social Indicators Research*, 1-18. <https://doi.org/10.1007/s11205-022-03008-2>

ACADEMIC VITA

Alexa Lynn Russo

Education

Bachelor of Science Degree in Human Development & Studies (HDFS) Expected May 2023
The Pennsylvania State University
Honors in Human Development and Family Studies
Schreyer Honors College

Honors/Awards/Activities

Dean's List Summer 2019 – Present
Women's Leadership Initiative Nominee 2021
Contributor and Volunteer, Sunny State September 2019 – Present
Contributor and Volunteer, Penn State THON September 2019 – Present
College of Health & Human Development Studies National Honor Society 2019 – Present
Blue and White Society 2019 – Present
National Honor Society of Leadership and Success 2019 – Present
National Society of Collegiate Scholars 2019 – Present

Professional Experience

Research Assistant Mind and Body Initiative for Diverse Communities (MBIDC) 2021 – Present
Lab Director: Dr. Alyssa Gamaldo,
*HANDLS (Healthy Aging in Neighborhoods of Diversity across the
Life Span) Sleep Study*, Research Project
Personal and Community Engagement as it Relates to Well-being in Adults, Thesis Topic
The Family and Media Influence on COVID-19 Vaccination Status, Research Project HDFS
310M- Honors Research Methods
Teaching Assistant, HDFS 414 Resolving Individual and Family Problems Spring 2023

Certification/Skills

Certified in REDCap: Research Electronic Data Capture
Certified in Recognizing and Reporting Child Abuse (University of Pittsburgh, Social Work)
Microsoft Office ProPlus (Word, Excel and PowerPoint)
IBM SPSS (Statistical Package for the Social Sciences)
Project Management Capabilities
Experienced Communicator, Experienced Presenter, Thoughtful Leader, Engaging Listener, Strategic
Researcher, Versatile Team Player, Relationship Builder