

Research Article

Healthy Aging in Villages - Physical Activity and Social Relationships on Social Engagement among Community-Dwelling Village Older Adults

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Abstract

This study examined physical activity (FITNESS) and social relationships (FRIENDS) on social engagement among community older adults. Members from two Florida aging-in-village programs participated. Three five-point Likert scales were used: A 5-item FITNESS (weight, endurance, strength, flexibility, health), 4-item FRIEND (family, friends, neighbors, communication), and a 3-item social engagement scales (social-leisure activities, stay involved, healthy independent) (Cronbach alphas: .82~.92). Among the 96 participants, 79% were females, 91% were whites, 56% were married, 86% had a college education, and 46% living alone. Mean age was 70.7 (SD=10.10). Participants reported at least 30-min physical activity about 4.2 days per week. Overall, social engagement was high (mean=4.38), FITNESS was median (mean=3.46), and FRIEND was high (mean=4.19). FITNESS was significant to over 30-min physical activity. Yet, higher FITNESS, FRIENDS, age, and volunteers were all significant to social engagement. Results have implications on promoting social engagement among older adults participating in aging-in-community programs.

Keywords: Aging in community; Physical activity; Social engagement; Social relationship; Village model

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Introduction

The United States is now being called an “aged society” because of an increase in the older adult population (aged 65 and older) and the projected continued growth in this age group over the next twenty years [1-5]. While aging is inevitable, many older adults cannot age in place, despite that fact 90% of older adults report they prefer to age in their own homes [2,3,6]. To address the preference of this population to age in place, Aging in Community (AIC) models emerged, which encouraged the development of communities created by like-minded citizens who wanted an environment where they could age together, gain support and access resources [3,5-8]. The village model has gained prominence since it provides an environment for older adults to age in place, reduces isolation, improves social engagement, and provides access to village-wide activities, such as volunteer opportunities [2,5-10]. Specifically, the primary goal of the village model is to reduce social isolation through social connections among the residents of the village [3,7-9]. Social engagement is defined as the feeling of being connected to other individuals, interactions, and taking part in activities with others [11]. These connections can vary by age, gender, length of the activity, whether the activity is done in a group setting, as well as whether the connection includes spouses and family members [11]. This goal of social engagement is achieved through various programs, such as companionship services, social events, educational event and community services available to village residents [6,7]. One study found that village members who took part in village activities frequently reported an improvement in their social connections [6]. These improved social connections reduce the risk of isolation among older adults who may have retired and lost social contacts they previously had in their day-to-day life [9].

These models, like the villages, are important to older adults as they continue to age and their needs change. The study conducted by Hou examined remain healthy and independent by age group, the young-old (ages 65-74), the old (ages 75-84), and the oldest-old (ages 85+) age groups [2]. Study showed concerns among different age groups varied somewhat: All desired to maintain social activities and engagement; however, the young-old, reported concerns with their mobility, the old age group experienced difficulties with mobility along with difficulties completing household chores, while the oldest-old were concerned about health issues and companionship [2]. Furthermore, research studies found that the health of older adults can be affected by their social connections with friends and neighbors [6,11]. Unmarried older adults were less likely to have a social network and less likely to have quality social relationships [12]. Providing opportunities for older adults to create strong social relationships has shown a large impact on the quality of life of these older adults [13]. In addition, findings show an increased importance in the role of friends and neighbors in terms of non-family support system as one aging [13]. Models like the villages provide an environment to create these non-family support systems that will positively affect the well-being of these aging adults while allowing them to age in community.

Overall, both social relationships and physical activity affect quality of life. Social participation is a component of social engagement and a determinant of health among older adults [4,14]. Older adults with access to transportation (whether private or public) have higher level of social activities and social participation, or interactions with others outside of the home [9,14]. Those who experience lower levels of participation are more likely to experience loneliness and negative health outcomes [14]. Physical activity is important to maintaining independence among older adults and a key component of aging in place [15]. Although the primary goal of physical activity is to improve health through exercise, these activities also present the opportunity for social connections [15]. These connections are essential to reducing loneliness. Study shows older adults took part in physical activities in their communities in order to build relationships and experience meaningful social connections [15]. However, these physical activities need to be “productive” to reduce feelings of loneliness and establish new relationships [15]. Study found that men prefer some alone-time when completing group activities [15]. This supports the idea that being alone does not mean the individual feels disconnected or isolated [15].

The village model uses volunteer opportunities to encourage social relationships [9]. Graham and colleagues found that volunteering can lead to better health outcomes, reduce isolation, and improve physical health [1,9]. However, it is also important to note that older adults may experience barriers to social engagement based on their built environment. Older adults aging in areas with poorly maintained streets and sidewalks reported a lower level of physical activity; whereas those who live in communities with a higher level of walkability are more likely to take longer walks [1]. Older adults who live alone are further at a higher risk of loneliness and lower levels of social connections [1]. Therefore, factors related to physical activities and social connections may influence the level of engagement among older adults.

Currently, there is limited literature examine how physical activity and social relationships influence social engagement among older adults. Building on these empirical studies and exam how they influence social engagement, this study aims to exam FITNESS and FRIEND dimensions of a healthier lifestyle, where the FITNESS dimension has a focus on physical activity and the FRIEND dimension has a focus on social relationships [2,16]. Lower levels of social engagement can lead to increased loneliness and poorer health outcomes. Therefore, it is important to identify the fitness and friend dimensions in living a healthier lifestyle. Study findings can provide policymakers guidance to decisions related to aging in community support services and policies. Village program leaders can better develop and design activities to remove barriers and facilitate more social engagements.

Methods

Research question: How does physical activity and social relationships influence social engagement among community older adults?

Hypothesis 1: Community older adults who have a higher level of physical health will have a higher level of social engagement.

Hypothesis 2: Community older adults who have stronger social relationships will have a higher level of social engagement.

Sample

Members from two Florida villages, both were members of the Village-to-Village Network (VtVN), took part in the study survey. Coordinators from each village program helped with participant recruitment and completion of the survey when needed. Specifically, the Village coordinators help disseminated the survey to their members during their annual membership renew registration process to ensure all members had the opportunity to participate in the study. Over 90% of the members from both villages participated in the study, which resulted in 96 total participants who completed the survey. Comparing with national village samples [9,17], the current study villages were relatively young. However, the demographics of the overall study sample is similar in race/ethnicity, gender, and education distribution (the current study has majority [90+%] whites, majority females, 52% married, 71% with college education [3,5].

Measures

This study examined physical activity (FITNESS) and social relationships (FRIENDS) on social engagement (SocEngage) among members in two Florida village programs. Three five-Likert scales were used: A 5-item FITNESS (weight, endurance, strength, flexibility, health), 4-item FRIEND (family, friends, neighbors, communication), and a 3-item social engagement scales (social-leisure activities, stay involved, healthy independent) (Cronbach alphas: .82~.92). The FITNESS and FRIENDS scales were adapted from a faith-based healthier life program that was developed to be used in the community setting [16], and the SocEngage scale was created from Bowling and colleagues’ Older People’s Quality of Life scale [18]. Items of each scale were detailed below:

FITNESS: Scale items measured “How satisfied are you regarding the following areas:” (1) my body (appearance/weight), (2) my cardiovascular endurance, (3) my strength, (4) my flexibility, and (5) my health. Cronbach’s alpha of this scale was .916, showing high internal consistencies among the items.

FRIENDS: Scale items measured “How satisfied are you regarding the following areas:” (1) relationships with my family, (2) relationship with my friends, (3) relationship with others (neighbors or co-workers) and (4) my communication skills. Due to a significant portion of the study participant living alone or widowed, the item originally was included in the FRIENDS dimension, “relationship with my significant other” was excluded from the current study [16]. Cronbach’s alpha of this scale was .829, showing high internal consistencies among the items.

SocEngage: The rounded development of the scale items measured how much participants agree with the following three statements: (1) I have social or leisure activities/hobbies that I enjoy doing, (2) I try to stay involved with things and (3) I can please myself with what I do [18]. Cronbach’s alpha of this scale was 0.836, showing high internal consistencies among the items. This scale was selected because it was validated on community-dwelling older adults and measure the quality of life.

Data collection

A paper and pencil survey was administered to the two open villages members in a south-eastern state of the U.S. (N=96). Both villages were members of the Village to Village Network (VtVN). Coordinators and volunteers assisted participants with completing the

survey by reading the survey questions out loud and clarifying survey questions when needed. On average, each survey took 30 to 60 minutes to complete. This study was approved by the PI's institutional human subject review board.

Data analyses

Descriptive statistics were used to describe the study sample and variables. Cronbach's alpha was calculated to measure internal consistencies of the three scales. Regression analyses were conducted to examine the influence of physical activity and social relationships on social engagement. In addition, regression analyses were also conducted to see how physical activity and social relationships might play a role on overall physical activities measured by number of days per week participants had at least 30 min. physical activity. This approach for data analysis was used to address the research question to determine how physical activity and social relationships influence the social engagement of community older adults. Demographics were also included as covariates in the regression analysis.

Results

Among the 96 participants, 79% were females, 91% were whites, 56% were married, 86% had college education, and 46% living alone. Mean age was 70.7 (SD=10.10), with 25.5% in pre-old age, 38.3% in young old, 28.7% in old and 7.4% in the oldest old age groups. Overall social engagement was high (scale item mean=4.38; ranged 4.33-4.42), FITNESS was median (scale item mean=3.46; ranged 3.30-3.68), and FRIEND was high (scale item mean=4.19; ranged 4.04-4.28). Participants reported at least 30-min. physical activity about 4.2 days per week. FITNESS, but not FRIENDS, was significant to over 30-min physical activity (beta=.469; p<.001). Yet, higher FITNESS, FRIENDS, age, and volunteers were all significant to social engagement (Table 1). Specifically, community older adults who participate in physical activity experienced a higher level of social engagement. Similarly, community older adults who had more friends or social relationships experienced a higher level of social engagement. The regression analysis also found that social engagement varied by age and volunteer status. For example, older community adults who volunteer experienced more social engagement than those who did not volunteer. Marital status was also considered; however, the results show there is no significance between the married older adults and their social engagement.

participants was high, which was based on a median rating on the physical activity (FITNESS) scale (scale item mean=3.46; ranged 3.30-3.68), and a high rating on the social relationship (FRIEND) scale (scale item mean=4.19; ranged 4.04-4.28). Study findings were supported by existing evidence that higher physical activities and social connections were associated with higher social engagement [3,15]. Current findings show as age increases, the level of social engagement of these older adults decreases. This finding consisted with existing research that younger village members were more likely to report higher levels of social engagement [2,7]. The current study reported that older adults who volunteered were more likely to report social engagement. This was supported by existing research that older adults who volunteer have better physical health, social engagements and quality of life [9,19]. It is important to note that older adults with higher incomes, education, and those who had a spouse were more likely to volunteer [20]. Researchers find that older adults prefer to volunteer for a few hours per week instead of a few times a year. This more consistent level of volunteering was associated with reduced loneliness and increased social engagement [20].

Specifically, the results found that physical activity and social relationships were significantly associated with social engagement. Therefore, policies that support funding for physical activity programs and social activities in older communities are critical to increase social participation. It would be beneficial to partner with young-old groups and these village communities to create more volunteer activities to increase social engagement. Such partnership could identify organizations that would be interested in working with older adults and could potentially include transportation for these older adults to increase access to these opportunities for engagement. Limitations of the study include the use of a convenient sample and cross-sectional study design. Findings may not be generalizable to other village communities with different demographics and future studies should include larger samples. The cross-sectional study design also limits the ability to make causal associations. Future studies are recommended to explore the type of physical and social activities that would facilitate social engagement among older adults by different age groups. In addition, we encourage future studies to further examine the frequency of volunteering needed to impact social engagement among older adults.

Conclusion

This study showed that higher physical activity, social relationships, age, and volunteering were all significant to social engagement among community-dwelling village older adults. Current findings provide new contributions to the key role of physical activity and social relationship lifestyle dimensions on social engagement. These evidence-based data are critical for researchers and policymakers to support social engagement among community-dwelling older adults through the development of programs and policies to promote physical activity and social connections.

Funding

NA.

Conflict of Interest

None.

DV	Social Engagement (SocEngage)		
	F _(5,82) =14.096 (p<0.001); R ² =46.2%		
IV	Std Coefficient Beta [95% CI]	t	p-value
FITNESS	0.351 [0.077, 0.223]	4.067	<0.001 **
FRIENDS	0.311 [0.112, 0.404]	3.508	<0.001 **
Age	-0.230 [-0.087, -0.010]	-2.477	0.015 **
Marital (married)	0.44 [0.556, 0.927]	0.498	0.620 **
Volunteer (yes)	0.252 [0.295, 1.963]	2.694	0.009 **

Table 1: Multiple regressions of FITNESS and FRIENDS on SocEngage, adjusting for demographics (age, martial, and volunteer status).
Notes: * p<0.05; ** p<0.001

Discussion

Current findings show that majority of the participants were white females with college education. Overall social engagement of study

IRB Approval Numbers

This study has been approved as an exempt study by the UCF Institutional Review Board (SBE-17-12893). A cover page with consent information was provided with the paper-survey version and “click-through consent page” for the online survey version, before participants voluntarily agreed to take part of the anonymous survey.

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