Identifying resources for promoting healthy aging in community

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Abstract

Community-dwelling older adults depend on resources for stability and safety as they age. This study explores resources that mature over time to improve the quality of aging in community (AIC) within communities that are not modeled for aging populations. Recommendations for future research and community programs to improve the ability of community members to age in community were made based on the findings. This qualitative study used semi-structured interviews with open-ended questions on 16 older adults who attend programs designed to increase community interaction. According to data gathered, the three most important resources were social, health, and financial. AIC requires multiple resources to sustain basic needs and provide quality living. Early allocation of resources improves the likelihood of successfully AIC.

Keywords: Aging in community; Gerontology; Retirement planning; Village model

1. Introduction

Dependency on resources for stability and safety increases as humans age, especially for those who wish to age in typical community environments. Aging community models allow older adults to remain in one community by optimizing resources allocation and distribution. Alternatively, typical community models are designed for members who gather and use their own resources. However, in this model, access to available resources may be insufficient to meet basic individual needs or keep up with community standards. Therefore, one may result in a deficient quality of living for that community. Utilizing village model organizations can offer support for aging in community (AIC). However, knowing what is needed in preparation for this lifestyle can prevent insufficiencies before entering the later stages of aging. This study explores resources that mature over time to improve the quality of AIC within communities that are not modeled for aging populations. Recommendations for future research and community programs to improve the ability of community members to AIC can be suggested in this study finding.

1.1. Literature review

AIC is the preferred environment for older adults in the United States (Cutchin, 2003). Adults continue to live in their own communities and homes, and there is no requirement...
for age, income, or ability level like purposefully designed aging communities (Tovel & Carmel, 2014). To AIC, both personal resources for reacting to unforeseeable events and preparation for future events can influence the likelihood of stability and success for someone to AIC (Hossain & Ismail, 2020). Resources are a supply that someone can use in a time of need and be able to assist them in working through a situation (Merriam-Webster, 2021; Szanton et al., 2014). More specifically relating to the study of AIC, resources refer to support measures required for adults during daily activity that would otherwise be supplemented by staff at adult day cares or assisted living facilities (Cutchin, 2003). A theta refers to the decomposition of a resource compared to the resources forecast over time (U.S. Census Bureau, 2006). The theta, or the forecasted decomposition, of resources for aging represents the allocation of and ability to capitalize on resources as someone approaches needing to depend on this resource for stability (U.S. Census Bureau, 2006). Resources preparation in the context of aging is battling a negative theta. Therefore, as we age the ability to progress positively in resource allocation becomes less likely.

As resources and abilities decline, the safety of the aging person also declines, and the resources for recovery are diminished (U.S. Census Bureau, 2021). While AIC, homeowners are less likely to want to leave their residence as they age. Only 5.3% of citizens over the age of 65 relocated in 2006 (Di, 2003; Golant, 2008). Therefore, as people age, they are likely to remain in housing structures that are older and less likely to remain current on proper maintenance (Lagergren et al., 2017). The allocation of financial resources at this stage becomes less liquid as a significant source of net worth for older adults sits in the equity of their home (Park et al., 2016). As adults age with financial resources locked in assets, releasing these assets may cause additional burden on their daily life.

A reduction on one resource poses potential access limitations to other resources. This includes access to goods and services which can be a determinant of longevity of life (Hughes et al., 2008; Steverink et al., 2001). Resources used while AIC impact the quality of life one wishes to have. Financial resources can control the level of access to goods and services which directly impact one's ability to set their level of comfort or meet basic individual needs. Utilization of resources can also have compounding effects. Social networks take time to develop and have a direct impact on other accessing or building resources for aging adults (Taylor & Doverspike, 2003). However, resources also differ in the ability to use with liquidity. For example, one cannot access their home equity without risking financial stability, but they can call on a community member for assistance and still retain social stability (Bookman, 2008). As adults age, it is important to have adequate available resources. As we age, we must begin creating these resource caches. The bigger the contribution is, the more likely one will have adequate resources when retirement status begins and aging impacts resource utilization (Hou, 2019).

Recent studies in gerontology have identified programs that are directing attention to providing supplemental support for older adults within their existing communities (Greenfield et al., 2012; Hou, & Cao, 2021; Hou et al., 2019). The village model is a community collection of services that are governed by a legal entity, which can assist in aiding people in AIC. The village model can offer civic engagement and empowerment for the members to reduce AIC burdens while improving quality of life (Sharpe, 2021). Village models also address resource dependency through its design which allows members to access needed services with reduced or no dependency on their individual resource caches (Rameli & Marimuthu, 2018).

1.2. Significance of the study

While longitudinal studies emphasize the need for preparation (Gibbs, 2007), determining which resources are most desirable and its impact on older adults’ quality of life is difficult to predict. Many preparation programs focus on finite aspects, such as retirement income (Yu et al., 2021), but fail to recognize impacts on quality of life. To determine what preparation methods are likely to lead to a more preferred outcome of AIC, we must understand what areas are most important to older adults that require long-term design. We can then recommend further research that emphasizes a quality lifestyle while living in community. This study intends to determine what quality-of-life resources require long-term investing for individuals that desire to AIC.

2. Data and methods

This qualitative study gathered information from older adults who attend programs designed for them to interact in their communities. Participants were selected because of their membership of one of two social groups, the lifelong learning program (LLP) and a village program. Both community models offer similar services to aid their members to promote AIC. The village model is a collaboration of community members, volunteers, sponsors, and a governing board that hosts an array of services and activities for its members. The services can include access to volunteers for assistance maintaining their home and lifestyle such as handyman services, transportation service, financial guidance, and more. The village model is often associated with a non-profit organization to support the needs of the members (Greenfield et al., 2012). The LLP functions very similarly to the village model but is
associated with a learning institution or university. The LLP may bring additional activities that support continuing education throughout the lifespan to promote psychological and emotional function. All participants are currently AIC and have entered retirement status. A total of 16 members participated in the study; seven were from the LLP and nine were from the village program. The distribution of the sample populations demographics is listed in Table 1.

Data were collected by a semi-structured interview using open-ended questions. Responses were separately analyzed for thematic consistencies to determine what resources affect respondents' daily interactions and activities. An effect on daily interactions or activities will be noted if the response indicates that the resource hinders or assists in the ability to participate. Interviews consisted of 21 questions designed to stimulate responses about the daily lifestyle of participants that participate in AIC. Questions target the participants daily life activities, daily needs, daily interactions, long-term planning, and interactions that occur. Questions were open ended to promote spontaneous responses. Interviews were audio recorded, transcribed, and read repeatedly by different raters for analysis. Meaningful words, phrases, and sentence topics were extracted and compared to other participants' codes for each question (Slingerland et al., 2007). Data were analyzed by each study group and as a collective whole. Initial codes were generated, and common thematic occurrences were analyzed for responses. Codes generated focused on the main emphasis which the responses were targeting. The codes were then filtered to represent the resources which impacted the statement. These resources were represented by their use, desire to use, reliance on, notice of deficiency, or total absence of. Codes were discussed between investigators to ensure that the central theme of the responses was represented by the codes used. The codes applied to each response were reviewed and agreed on by investigators.

3. Results

Several themes occurred throughout the open-ended questions. Themes were discussed for the impact they have on the participants' perception of quality while AIC and the potential for impact preemptive planning would have on their current and future resources. The themes that provided the most insight for determining long-term resource planning are listed in Table 2. Responses collected provide information that was affected by or correlated to other themes. Therefore, information gathered frequently crossed between multiple coding variables.

Social network represents the participants’ interactions with other community members or friends. This code does not reflect interactions with family, only interactions with community members or close friends. Health represents the participants’ interactions with attending to their personal health-care needs, for example, attending a health care-related appointment, following a health-care regimen, or activities that affect or are affected by their health status. Financial condition represents the influence on finances for interactions or decision-making. The code represents limitations, supportive advice, personal privileges, and reflections of previous actions related to finances. The above table delineated the total amount of code usage for each sample group and the total number of uses for both groups. The table also represents the percentage of answers which the codes occurred in. The distinction of the columns represents the frequency of occurrence for the code's use within the variety of questions asked but also represents the intensity in which the responses were reflecting on the use of that code.

The most commonly used code in frequency and intensity was social network. While the health code appeared as a response for the same number of questions, the participants provided more depth in the responses when the social network code was used. This persists in both groups. The financial code referenced one additional count over the health code; however, the range of responses which it occurred was less. Other codes were used in the analysis of the data but did not indicate a significant occurrence of frequency or intensity. Therefore, those codes were not able to provide sufficient data for analysis.

3.1. Social network

Socialization was noted as an important aspect of daily life and responses indicated that it increased in importance as we age. The programs the participants were involved with assisted in filling this need for socialization. "It encourages me to get out of my house and interact with people," responded one participant when asked about the impact of the program. Socialization through the village program was also stated to have benefited the community for connecting people for personal socializations. The socialization theme noted impacts on quality of life within the community as well. One participant stated, "I go out and I meet people at the supermarket that I know from (village program), you know."

3.1.1. Lacking socialization

Adversely, the participants also noted that there is a generational change in which the younger generations are not socializing in typical manners. This causes the participants to presume that there is a disconnect from younger generations. Responses noted that younger generations use technology as a means of socialization,
which yielded mixed feelings among responses. Some participants noted the amazement of what younger generations can do with technology and socialization. Others remarked on how technology and the abundance of its use distanced the younger generation from each other and limited their ability to be social.

### 3.1.2. Accessing socialization

Transportation abilities were expressed in several areas of responses from participants which reflected limitations in social networking. Commonly, barriers for aging adults were indicated by transportation being a limiting factor to get to events and meet up with others. It was openly expressed that services are needed to maintain active living among those AIC so that they can remain active in daily tasks. A common notion was the need to keep moving to avoid the status of being “old.” When asked if the participants consider themselves old, a common response was that being old was a state of mind and that they keep pushing the concept of being old further away as they age. The defining moment of being old for those participants was when a person stops doing things. “…if you let yourself get old then you are going to be old. You’re just going to stop. Once you sit down then that’s it. You’ve got to keep moving and keep going and try to stay sharp…” expressed the participant. The theme of being active and part of activities requires transportation to prevent this limitation from occurring. However, in general, the interactions remarked on the need to retain socialization as a form or retaining quality of life.

### 3.2. Health

When discussing matters that impact the daily lives of the respondents, the most frequent remark was that of health, health care, mental health, and maintaining a healthy lifestyle. The importance of health maintenance and having an early start on healthy lifestyles was emphasized as a driving force of daily life and daily planning. One participant stated, “You have to do stuff actively to give yourself the best chance to remain physically healthy and intellectually stimulated.” Another respondent stated, “Be open to new experiences, take care of your health, and get exercise.” While other responses did not directly state that health was the factor, they did indicate by exemplar that health plays an important role in aging such as the statement “enjoy life and especially for my grandkids who are young, enjoy being a kid now cause you’re a kid for like maybe 12 – 13 years that you’re actually a kid. That you can run and do somersaults and act goofy. Enjoy it now cause it’s gonna be gone and you’re gonna wish you could go back cause sometimes I wish I could relive when I was younger.”

### 3.2.1. Health influence

Health-related responses influenced other categories as well. For this reason, personal health was the most referenced thematic code from all respondents. The ability to participate in events was impacted by health-related events such as attending frequent doctors’ appointments or planning their schedule to suit upcoming procedures. When asked for advice to future generations, remaining physically and mentally healthy were expressed in almost every response. The responses suggest that your physical and mental health is a high priority for successful aging.

### 3.2.2. Health activity

Exercise was indicative of retaining health status and ability to participate in events. Participant responses signaled that a status of aging and being labeled as “old” was highly reflective of physical abilities. Responses indicated that when you are no longer active, you have progressed to status that they would consider “old.” Additional limitation of physical ability was in reference to ambulation or ability to climb stairs. Respondents also indicated that weight loss plays a part in addressing physical limitation, noting that previous weight loss had a positive effect on their ability to be self-ambulatory, or the need to lose weight could increase physical abilities.

Additional dialog reflected the need for increased maintenance services for aging adults. While this is both physical and financial, respondents did not remark on the price of maintenance being an impact, but that it was needed to remain at their current level of living. The respondents indicated the need of maintenance as a service for aging within their home/community in the form of retaining a healthy environment. This suggests that the need for maintenance has physical limitations for an aging individual and impacts their environmental health.

### 3.3. Financial conditions

Responses in which financial resources were noted had the most detail among the thematic codes collected. Finances were discussed frequently among responses as areas of limitation, need of support, desire for improvement, desire for education, and suggestions for future generations. Participants remarked that they were subject to daily limitations because of funding. Multiple participants mentioned that finances directly impacted the integrity of the programs because it could exclude less financially stable members. They stated that membership fees, cost of activities during events, and cost of transportation could be a limiting factor for members to become part of their social network, thus limiting their engagement with other members of the community. In addition, participants from
both groups indicated that early financial planning was important, specifically knowledge of proper budgeting to prepare themselves while on a fixed income. One participant suggested that future generations should “make sure that as hard as it is, put money away and save it.”

3.3.1. Careers

Career planning, advancement, and quality were also discussed throughout the interviews. Participants noted that early career planning, or lack of, was impactful on how their financial resources were affected in the present day. One participant remarked “there’s just not enough information provided to kids to direct them.” Another noted that exposure should be increased, stating “I think in high school they could have more speakers coming in talking about what they do for a living and their jobs.” Participants expressed that it is as important to be part of a career that you enjoy as well as one that provides financial stability. In addition, they remark that the ability to change careers or advance to more important roles should be encouraged to the future generations.

3.3.2. Education

While some participants were promoting the idea of continuing education, caution on how education was obtained differed greatly. Some participants noted that loans for education were not suggested because of their negative long-term financial impacts, but college in general is very beneficial. Other participants noted that technical learning, either by school or apprenticeships, was preferred methods of developing career skills because of their positive financial impacts. As a common point, the participants agreed that the education path that the future generations consider should also include an understanding on how much the cost of the education will be compared to the potential income from that career. For example, one participant noted that some college degrees cost more than 2 years’ salary for the job they are seeking, and therefore, the student’s ability to start becoming financially stable is delayed.

Finally, on multiple occasions, participants noted that they have experienced or are currently in a state where financial advisory is needed. The general lack of financial experience and understanding was indicated among multiple participants in response to multiple questions. Participants indicated that increased financial awareness and early planning would have a heavy impact on the function of their status.

3.4. Differences among the two sample groups

3.4.1. Village program

Responses of the village program group showed a tendency to focus on socialization and community. The responses from participants often reflected how socialization was a top priority of their daily lives. The responses that included socialization occurred before offering other information that the question prompted for. The sense of community in the village program group also resonated throughout the body of their responses. The group tended to remark on how they were able to help or be helped by others within their community and groups. The use of their program appeared to promote the acquisition and continuance of relationships with other members. This, in turn, also supported the health of the model by promoting active living and assistance to attend health appointments such as transportation or chaperons.

When referring to less preferred aspects of the group, the village program had several respondents note cultural status as a negative affiliation with the group. One member remarked “So, it’s hard for somebody who is not..."
bilingual, and English isn't their native tongue....” Another respondent felt that it was important to remark on the race of a caregiver “She has somebody that comes in 6 h a day, a blackwoman, but I really got to like her intensely.” These cultural references suggest that the village program population may not be a heterogeneous representation of that community but more of a defined set of demographics among that community.

3.4.2. Lifelong learning program

Responses for LLP focused on continued self-improvement and independence. LLP members often remarked on personal well-being by referencing the model's ability to retain mental and emotional health. Responses reflected that the LLP members were attempting to improve their knowledge or expand their understanding of life skills, such as finances or personal health. While socialization was mentioned, it was not as highly promoted for this group.

A notable aspect of LLP is the similarities in the respondents' dislikes. They often referred to the activities that they were part of, particularly the presentations, and how the members take the activities very seriously. This group participated in activities with high regard and remarked on when activities had lackluster performance, or a belittling topic was offensive to the members. One response referenced a presentation, “They’re speaking down a little bit...Why would I want to say something bad about someone? [So I] just let it go.” Consistently, the respondents remarked that they have preferences of topics but were open to variety. Responses often indicated that they were pleasantly surprised by presentations with new categories that turn out to be interesting to them. However, the speaker's presentation of the material was paramount to their perception of the activity.

4. Discussion

Evaluation of resources through qualitative methods reveals several areas with potential long-term attributions. The complexity of their interactions should not be underestimated but the focus of this investigation is to open the dialog of what resources are perceived as important and what the hierarchy of importance was. Several assumptions were made about resource allocation and distribution that would impact the ability to AIC. The implications of financial resources, as gathered from the data, was that long-term preparation for income, investments, and utilization were heavily impacting the ability for the participants to AIC. Personal health and well-being resources were noted to increase opportunity for successful AIC by minimizing complications that can lead to the need for intervention. Finally, social resources impacted the ability to compromise when faced with complications that occur when AIC.

4.1. Social resources

Social resources have the most direct impact on maintenance and security of AIC. While financial and health resources can directly impact access, social resources had the most impact on the quality of life while aging. Responses describe the need for participants to retain access to socializing for their mental and physical health. The ability to interact with others, whether through planned events or by serendipity, was among the most expressive responses. The notion that a person will become old because they are no longer participating in activities was expressed by multiple participants and thus emphasizes its importance. This can directly impact mental health by addressing isolation. Isolation is also linked to an increase in cognitive decline among those in retirement (Barbosa et al., 2016). Isolation aside socialization among retirees promotes physical health through activities. While physical activity is expected to decline over time, social opportunities can combat this decline (Gillsjö et al., 2021).

4.2. Health resources

Health resources also provide variability to the individual because of predispositions of medical conditions. However, general health allocation is indicated to still impact successful AIC because of peripheral factors. Health issues have limited participants’ abilities to complete tasks that assist in retaining quality of life. Such tasks include general ambulation, home maintenance, cooking, and cleaning. Health resources limiting the level of activity, mobility, or strength can force participants to increase the theta of their health resources to accomplish more basic tasks, such as hygiene and health monitoring. If early health maintenance occurs, there is an increase in health reserve and a reduction in depreciation occurs. In addition, physical health is found to increase a person's perspective of successful retirement (Hauff et al., 2020). However, the absence of an overall illness or disease does not create a sense of health; an individual must also feel as if they are able to engage in life events and retain a healthy lifestyle (Beier et al., 2018).

4.3. Financial resources

Financial planning for retirement occurs in three stages: Planning, saving, and investment. However, 70% of Swedish adults 18 – 65 have not begun planning on determining what they would need to accomplish to financially retire and only 44% have set aside funds for...
As aging progresses, the likelihood of hazard from self-transportation increases and the dependence on other methods increases. With assistance from friends and family, people are less likely to attempt to self-transit, reducing the opportunity for hazard while also increasing their utilization of social resources (Yuen et al., 2007).

As we discuss the three main categories of resources indicated from participants, it becomes apparent that they are intertwined more than they are independent. Access to health and social resources can be greatly affected by financial resources and the ability to use them with liquidity. In using resources to confront unexpected events, medical episodes can become costly and decrease access to social events, especially if physical impairment persists. Furthermore, socialization that is overindulged or not properly planned for can diminish financial resources or lead to health implications.

4.5. Limitations
This study is limited to the collection of sample groups by method of convenience sampling from the two programs. The sample size is limited by this design, and therefore, generalization to other demographics and geographical areas may not be appropriate. The sample size also limited the ability to determine intergroup demographic implications of the results. While it is known that there is an effect on independence scores and education level, the sample size was not adequate for detecting these variables (Hou, 2020; Yuen et al., 2007). Interview questions were analyzed without retrospective review of the participants and are representative of the research investigators interpretations of responses. Therefore, it is recommended that the future studies should include purposeful focus groups to provide deeper insight into the phenomenon and qualitative data be collected to confirm the results. One strength of this study is that it is the first to attempt to determine the areas of opinionated importance when discussing long-term preparation for AIC. These results were interesting and prompted further inquiry to assist in guiding preparation for successful AIC. Further studies should also direct questioning to determine if participants are aging in the right place (AIRP) with respect to the appropriation of resources. As research pertaining to AIRP suggests that housing should be able to support individual insufficiencies for resources, the determination of resource hierarchy requires continued investigations (Canham et al., 2022).

5. Conclusions
AIC requires an abundance of resources to sustain basic needs and provide a quality of living. Early allocation of resources improves the likelihood of successfully AIC.
According to data gathered, the three most important resources are social, health, and financial. Each resource impacts on a person’s ability to remain in community and continue to age. As aging progresses, the use of these three resources begins to increase, causing a stress on the cache. Therefore, higher accumulation of these resources can be reflective of successful AIC.

While other options for aging exist, such as moving in with family or friends, retirement communities, assisted living facilities, and skilled nursing homes, AIC remains the preferred method. While research on current services is valuable to the understanding of this issue, the data collected indicate that longer term plans would be beneficial. This is because of the social health and financial resources required to access these services. A better understanding of these complex and interconnected resources can provide valuable insight into successful AIC.

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Ethics approval and consent to participate
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.

Consent for publication
Not applicable.

Availability of data
The data are not publicly available. Please consult the corresponding author for the data access.

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