Successful Aging in a Southern Older Adult Sample

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Abstract

This paper presents data on a sample of rural southern older adults who participated in an intervention to promote successful aging through creativity. Successful aging is described and the sample's scores on successful aging indicators are compared to norms that have been reported. The study thus provides beginning information about successful aging in a group in which there has been limited research heretofore in order to describe the phenomenon in this regional group and to compare these individuals with other U.S. samples.

An extensive body of literature suggests that in the U.S., the numbers of older adults and life expectancies are increasing: persons 65 years or older numbered 35 million in 2000, representing 12.4% of the U.S. population, about one in every eight Americans.\(^1\) By the year 2040, the U.S. will have more people over age 65 than under 20.\(^2\) Between ages 75 and 84, 73% of the elderly report no disability, and after age 85, 40% of the population remains fully functional.\(^3\) However, 26.4% of non-institutionalized older adults rate their health as only fair or poor.\(^4\) It is expected that aging and age-related issues will increase in magnitude in the future, and already, health care costs of older adults are four times those of middle age adults.\(^5\) With the growth in the older adult population and their age-
related health care needs, successful aging will become increasingly important in the future.

**Background**

In addition to Japanese, Chinese, Taiwanese, and Israeli research on successful aging has been conducted with older adults in several pockets of the U.S. These areas include: the northeast and one city in North Carolina; California; Ohio; Colorado. Despite indications that successful aging varies across ethnic and cultural groups, little is known about older adults of the southern U.S. Moreover, authors have conceptualized and measured successful aging in a differing ways, making comparisons between studies difficult (see Table 1). Further, most research has used objective criteria imposed by the researchers to determine who is aging successfully. Only a few researchers have explored participants' perceptions of their aging. Some have compared self-rated successful aging with objective measures of successful aging, and found striking differences in the number of participants who were deemed successful agers (50.3% and 18.8%, respectively, with N = 867). Phelan et al. examined 2,932 older adults' opinions about successful aging, and concluded that older adults' views of successful aging appeared to be multidimensional and more complex than many of the early published studies indicated.

In summary, researchers have tended to take a fragmented approach in studying successful aging, and also varied in conceptual definitions for successful aging. Successful agers have typically been identified by researcher-imposed criteria. When researchers have sought older adults' views on successful aging, these have tended to be multidimensional and more complex than expected. These are compelling reasons to examine successful aging multi-dimensionally, without researcher-imposed criteria, across varied cultural, ethnic, and regional groups. Therefore, to understand successful aging in various groups of older adults, and in order to identify culturally and racially-specific interventions to promote successful aging, it is important to examine the phenomenon in different racial, cultural, and ethnic cohorts. This paper reports data on a sample who took part in a creativity intervention designed to enhance successful aging. This paper uses data from this sample to answer the following questions: 1. How is successful aging described in an older adult southern sample, in terms of their functional performance? 2. How is successful aging described in an older adult southern sample, in terms of their creativity? 3. How is successful aging described in an older adult southern sample, in terms of their life satisfaction and purpose in life?

**Theoretical framework**

The Roy Adaptation Mode was the theoretical framework for this study. Roy defines adaptation as the process and outcome whereby thinking and feeling people use conscious awareness and choice to create human and environmental integration. Successful aging was defined as an individual's perceived favorable
outcome in adapting to the cumulative physiologic and functional alterations associated with the passage of time, while experiencing spiritual connectedness, a sense of meaning and purpose in life.\textsuperscript{21}

\textbf{Methods}

\textbf{Design}

This study used a pre-test-post-test experimental design with a control and an experimental group. The data analyzed here are for descriptive comparative purposes. Recruitment was done at three senior centers in upstate South Carolina. The three centers serve community-dwelling elders. Those who attend the center may do so as few as 1 or as many as 5 days per week. The centers do not provide medical care of any kind. Program offerings include educational presentations, crafts, and exercise. Adults age 55 and older are eligible to attend.

Inclusion criteria for the study were (1) a score of at least 24 on the Folstein Mini Mental Status Exam\textsuperscript{23} and capable of understanding and responding to questionnaires (in the instance of those unable to write due to blindness or stroke) and (2) willingness to participate in at least half (4) of the 8 sessions if assigned to the treatment group.

\textbf{Sample}

Participants were southern rural older adults from the senior centers who volunteered to participate and who met the inclusion criteria. Most of the older adults had resided in South Carolina their entire lives.

\textbf{Procedure}

The researcher approached potentially eligible elders at each senior center, explained the study, asked for volunteers, and screened those who volunteered. Informed consent was obtained and participants were randomly assigned to the treatment or control group at each of the sites.

Participants who were in the treatment group participated in a creativity enhancement intervention, which has been described elsewhere.\textsuperscript{20} The treatment and control groups completed the same packet of questionnaires before and after the treatment intervention. Data presented here are the initial data collected from the sample. Thus this paper examines aging in a rural southern sample of Black and White participants, individuals who have been largely overlooked in the research on successful aging, in order to describe successful aging in these individuals and to compare their data to that of other U.S. samples.

\textbf{Measures}
**Functional performance.** The Arthritis Impact Management Scale Short Form (AIMS-SF) was used to measure functional performance. AIMS-SF Short Form is a 10-item functional impairment index with dichotomous response options, which measures mobility, physical activity, dexterity, household role, and activities of daily living. The AIMS-SF short form has alpha reliabilities of 0.56 to 0.91 and test-retest correlations of \( r = 0.55 \) to 0.73. It has a 5.2 Flesch-Kincaid reading level. Examples of test items include "are you in bed or a chair most of the day because of your health" and "how much help do you need getting dressed." Higher values indicate higher functional performance. In this study, the AIMS-SF short form raw scores were used for analysis. The range of possible raw scores is 10 to 24.

**Creativity.** The Similes Preferences Inventory (SPI) was used to measure creativity. The SPI is predictive of novelty of productions, indicating the tendency toward variety. It is a 54-item instrument that presents the beginning of a common simile, with five alternative endings for each item, of which the respondent must select one, on the basis of preference. The SPI may be scored dichotomously, assigning a value of 0 to the usual, substantive, or remote item endings, and a value of 1 to the opposite or nonsense endings. Higher scores are indicative of greater levels of creativity. Due to the construction of the SPI (there are complete sentences) it is not possible to run a Flesh-Kinkaid readability level; however, the instrument was initially piloted with three samples whose education ranged from ninth grade to several years of college. An example of an SPI test item is "slippery as . . . slumber, soup, mud, tar, an eel." The range of possible scores for the SPI is 0-54. Kuder-Richardson reliability estimates of 0.93-0.95 have been reported for the SPI, indicating high internal consistency, and strong external correlations have been evidenced as well.

**Successful aging.** The Life Satisfaction Index-A (LSIA) was used as one measure of successful aging. Test items include such questions as "as I grow older, things seem better than I thought they would be" and "as I look back on my life, I am fairly well satisfied." The range of possible scores is 0 to 20 and higher scores reflect greater life satisfaction. The LSIA has a 5.3 Flesch-Kincaid grade level readability. It is a widely used instrument and has content validity assured by items based on repeated interviews with people aged 50-90 years about life pattern, attitudes, daily activities, values, social interactions, and other concerns. Neugarten et al. report interrater reliability of 0.78 for the LSIA. A number of studies using the LSIA with elderly participants have produced statistically sound and theoretically meaningful results. The LSIA also has construct validity demonstrated through correlations with a Life Satisfaction Rating Scale.

The Purpose in Life Test (PIL) was used as a second measure of successful aging. The PIL is a 20-item, 7-point Likert-type scale that measures the degree to which a person experiences a sense of meaning and purpose in life. The PIL has a 6.8 Flesch-Kincaid grade level readability. Test items include questions...
such as "my personal existence is very purposeful and meaningful" and "in achieving life goals, I have progressed to complete fulfillment." The range of possible PIL scores is 0-120. Higher scores on the PIL Test reflect increased purposefulness.\textsuperscript{31} The PIL has been used with elderly individuals up to 103 years old.\textsuperscript{32} Crumbaugh\textsuperscript{33} reported Pearson’s $r$ of 0.995 between two forms of the PIL Test when administered to the same sample and cited well supported construct validity.

\textbf{Results}

Data analyses were performed using the \textit{Statistical Package for Social Sciences (SPSS)}.\textsuperscript{34} Demographic data were collected and successful aging was examined in terms of participants’ functional performance mechanisms, levels of creativity, life satisfaction, and purpose in life. \textit{Demographics}

The sample was composed of 57 participants, who ranged from 57 to 94 years in age, with a mean of 76.5 years of age ($s.d. = 8.08$). Thirty-five (61.4\%) were White and 22 (38.6\%) were Black, reflecting the racial distribution of Blacks and Whites in the state (20.7\% Black and 78\% White).\textsuperscript{35}

The percentage of participants ranging in age from 65 to 74 (37\%) was less than the corresponding percentages for South Carolina (58\%),\textsuperscript{36} as well as nationwide (53\%),\textsuperscript{37} while participants age 75 and older (56\%) exceeded the percentage of older adults in this age range in the state (42\%), as well as the nation (47\%).\textsuperscript{36,37} The proportion of females to males in the sample was considerably greater (5.3 times more) than that for the state (1.7)\textsuperscript{38} or nationally (1.37).\textsuperscript{39}

Educational attainment ranged from second grade to a 4-year degree. However, participants tended to be less educated than older adults generally in South Carolina and nationwide,\textsuperscript{2} with educational attainment ranging from second grade to a four year degree. Mean educational level was eighth grade ($s.d. = 5.15$). Table 2 shows additional demographic information for the sample.

\textbf{Table 2 Demographic Data}

<table>
<thead>
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<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
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<tr>
<td>Employment</td>
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<tr>
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<td>91.2</td>
</tr>
<tr>
<td>Employed</td>
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<td>3.5</td>
</tr>
<tr>
<td>Never employed</td>
<td>3</td>
<td>5.3</td>
</tr>
<tr>
<td>Income</td>
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Hobbies included reading and writing; outdoor activities; painting; volunteer activities, socializing, travel, and games; needlework and crafts; music; and other. Thirty-seven percent of the sample (n=37) listed hobbies that fell under the category of other. These included religious activities and spending time with grandchildren. Forty-two percent of the sample (n=24) reported participating in volunteer work, social activities, travel, and games. Twenty-six percent (n=15) liked needlework and crafts, and 25% (n= 14) liked reading. Only 7% of participants (n=4) said they had no hobbies.

Arthritis was by far the most frequently reported health condition, at 51% (n=29). Despite the high prevalence of arthritis, only 18% (n=10) of the sample said they had chronic pain. Thirty-three percent (n=19) reported cardiovascular conditions, and the third most frequently reported health condition was diabetes, present in 32% of the sample (n=18).

**How is successful aging described in terms of functional performance?**

The mean AIMS-SF score for the sample was 21.51 (range = 14 -24; s.d. = 2.61). Higher scores indicate greater levels of functional performance. Therefore, this sample tended to have a high level of functional performance. Newman reported mean AIMS-SF raw scores ranging from 20.58 to 21.0. The study sample had just slightly higher functional performance ability that Newman's sample.

**How is successful aging described in terms of creativity?**

The mean SPI score was 6.67 (range = 0 -26; s.d. = 7.89). In comparison to previously published studies whose SPI scores have ranged from 3.74 to 19.44, the mean SPI was within the typical range for these older adults.
**How is successful aging described in terms of life satisfaction and purpose in life?**

The sample mean LSI-A score, 13.25 (range = 3.0 - 20.0; s.d. = 3.71), was slightly higher than that reported by Neugarten et al., who cited a mean LSI-A score of 12.5 in a sample of 508 persons age 65 and older. The mean PIL score of 83.1 (range = 0.0 - 120.0; s.d. = 27.7) was less than that of Crumbaugh and Maholick's normative sample of 805 adults, who had a mean PIL score of 112.4. Ebersole and Quiring reported mean PIL scores ranging from 107.3 to 109.1. Thus this sample scored much lower than the means reported in the literature.

There were no significant differences in the AIMS-SF, LSI-A, PIL, or SPI between males and females. However, when Black and White participants' scores were compared, Black participants had significantly higher SPI scores (\( \alpha = 0.001 \)). Their mean SPI score was 10.91 (s.d. 8.48), compared to 4.0 (s.d. 6.23) for Whites. There were no significant differences in age groups on any of the variables. Additionally, quite a few participants offered quite valid comments during data collection that indicated a need for further assessment of the feasibility of using some of these instruments with southern-dwelling (or perhaps other groups of) older adults. For example, in response to LSI-A item 6 ("these are the best years of my life") one participant responded, "I've had a stroke and my husband is dead. No, these are not the best years of my life." Numerous participants strongly disagreed with PIL item 18 (my life is in my hands and I am in control of it) stating, "Oh no, my life is in God’s hands!" Several other items on these instruments evoked unexpected participant responses accompanied by explanations about their spirituality or life outlook in general (i.e. PIL item 13 - concerning man's freedom to make his own choices, I believe man is absolutely free to make all life choices; "well no it’s really up to God").

**Discussion and implications**

This paper examined successful aging in rural southern older adults of South Carolina. One interesting finding was the racial differences found; no previous studies have reported such variances. Further research is needed to see if these differences are found in other samples in the South and elsewhere. The findings suggest that Black older adults have different health promotion needs for successful aging, consistent with the idea of tailored interventions. Tailored educational activities that focus on improving diet, physical activity, and self-management have been shown to improve knowledge and health behaviors in racial and ethnic minority groups, and tailored interventions to promote successful aging hold promise. In the meantime, nurses can assess for (and encourage) older adults’ involvement in meaningful, important activities. They should also be sensitive to older adults’ perceptions and self-assessment of old age.
While they did not outwardly exhibit depressive symptoms, some of the participants offered comments in response to LSI-A items that warranted further assessment. “I've had a stroke and my husband is dead. No, these are not the best years of my life”, one participant responded. A number of participants said that this was the dreariest time in their lives (LSI-A item 3) but that they were as happy as when they were younger (LSI-A item 4). The Geriatric Depression Scale Short Form\textsuperscript{44} could be used in future studies to determine presence and extent of depressive symptoms in participants. It should also be used as a routine screening tool by practicing nurses caring for older adults.

The findings from this analysis provide a description of successful aging in the old and old-old (those 75 and above), females, and those who are less educated. They were quite active in terms of hobbies and leisure activities; tended to have lower purpose in life, greater life satisfaction, comparable creativity levels, and slightly greater functional performance than other older adult samples. The divergent tendencies in regard to purpose in life and life satisfaction scores were unexpected; perhaps the (format, reading level) instruments are one reason for this outcome, as a number of participants appeared to experience challenges when completing either of the successful aging instruments. Further examination of the utility of these instruments in older adults with limited educational attainment is needed.

Although much work remains to be done in order to better understand successful aging and how to promote it, the findings of this study and others\textsuperscript{10,12,13,17,18} indicate that one thing nurses can do now is inquire about older adults' perceptions of their own aging. Based on a patient's response, a nurse might identify the need for patient teaching or make referrals to other health care providers. Given the prevalence of chronic illness, depression, and other age-specific stressors in older adults, it is likely than many older adults spend time thinking about what their future holds. Therefore, inquiring about how they feel about aging is important.

**Limitations**

An obvious constraint of this study is the limitation of generalizability of these findings to older adults who are southerners. However this restriction of applicability is also a driving force behind the need for further research; if these nuances of successful aging vary according to region, then it is important to increase knowledge of the phenomena in southern older adults as well as those who reside in other less-studied areas (for example, cooler areas such as Wisconsin and the Dakotas).

While this study sought to describe successful aging without imposing criteria, by sheer choice of the instruments administered the researcher was limiting the variables assessed to those constructs captured by the instruments selected. While it was not an initial aim of this study to collect qualitative data on
participants’ descriptions (of successful aging), many offered their comments about the phenomenon or wrote notes on the survey packet. The researcher maintained field notes of such incidents, which further reinforced the importance of assessing older adults’ perceptions, in addition to other measures of successful aging indicators. Perhaps even more important is the need to develop an instrument to measure successful aging which is derived from older adults’ perceptions of what is vital to aging successfully.

Conclusion

This study was an initial step towards gaining an understanding of successful aging in rural southern older adults. The researcher sought to understand successful aging without imposing criteria for who could and who could not be considered a successful ager, and exploring variables seen in the successful aging literature. The findings from this study provide interesting information about successful aging in this geographic population of older adults and evoke several questions. Future research is needed to examine whether there are racial differences in successful aging in other samples; to assess successful aging in a larger group of rural southerners to ascertain whether these study results are replicable; and to determine how other health indicators relate to the ones measured in this study.

References


