Online Journal of Rural Research & Policy

Volume 7 Issue 1 *Wellness Activities of Rural Older Adults in the Great Plains*

Article 3

2012

Wellness Activities of Rural Older Adults in the Great Plains

Randall Russ Oklahoma State University

Follow this and additional works at: https://newprairiepress.org/ojrrp



This work is licensed under a Creative Commons Attribution 4.0 License.

Recommended Citation

Russ, Randall (2012) "Wellness Activities of Rural Older Adults in the Great Plains," *Online Journal of Rural Research & Policy*: Vol. 7: Iss. 1. https://doi.org/10.4148/ojrrp.v7i1.1626

This Article is brought to you for free and open access by New Prairie Press. It has been accepted for inclusion in Online Journal of Rural Research & Policy by an authorized administrator of New Prairie Press. For more information, please contact cads@k-state.edu.

Wellness Activities of Rural Older Adults in the Great Plains

RANDALL RUSS Department of Design, Housing and Merchandising Oklahoma State University

Recommended Citation Style (MLA):

Russ, Randall. "Wellness Activities of Rural Older Adults in the Great Plains." <u>The Online Journal of Rural</u> <u>Research and Policy</u> 7.1 (2012): 1-14.

Key words: Rural Activities, Wellness Activities, Older Adults, Elderly, Great Plains, Senior Centers

This is a peer- reviewed article.

Abstract

Growing interest in healthier aging coincides with the comprehensive whole person wellness model, defined by Hettler (2003^{1}) , that includes physical, emotional, spiritual, intellectual, occupational, and social dimensions. This study examined current activities for older adults in rural senior centers in the Great Plains. A mail survey was administered to the directors of Kansas, Oklahoma, and Nebraska senior centers. Findings indicated that only 15 percent of the senior centers in the three states offered activities for all six wellness dimensions. To accommodate activities in a rural senior center, both programs and space for the programs for diverse activities should be addressed.

Introduction

As the U.S. population of older adults continues to increase in number and proportion, innovative models to deliver health care to those in need, particularly in rural areas, are required to support health and quality of life. By 2030, the older population will reach 70 million, comprising approximately 20% of Americans, with 1 in 8 aged 65 and older. At highest risk for institutionalization is the proportion of the elderly population aged 85 years and older, which is experiencing rapid growth in number in the U.S. society. Generally, a greater proportion of older adults in rural areas experience poverty and poor health compared to their urban counterparts. Difficulties faced by the older adults particularly in rural areas include poor access to health professionals and resources, transportation, loss of family and community networks, and lack of mental health services (Hayward, 2005^2).

Efforts to provide health and wellness services to the aging adult have the potential to ameliorate or postpone health decline in the advanced years and increase the quality of life. Older adults are an important age group to target for health and wellness given the increased risk for chronic illness and disease with advancing age and the impact on health care utilization and expenditure currently recognized as significant (Hayward, 2005^{3}).

Growing interest in healthier aging coincides with the comprehensive whole person wellness model. Whole person wellness programming offers new opportunities for the senior market in six dimensions of wellness which include physical, social, intellectual, emotional, occupational and spiritual wellness (Montague & Stanley, 1998⁴). Rural senior centers, though, may not be aware of the need for developing and maintaining wellness beyond the physical dimension (Kang & Russ, 2009^{5} ; Bull, et. al, 2001^{6}). Positive outcomes for older adults include more than physical independence. These outcomes also include the ability of the senior to function and remain active (Infeld & Whitelaw, 2002^{7} ; Skarupski & Pelkowski, 2003^{8}). In this context, senior centers play an important role in how older adults interact in their community (Kochera & Bright, 2006^{9}).

While the aging of Americans represents one of the most significant challenges facing the U.S. health care system, rural areas may face even greater challenges with meeting the needs of older adults and their families (Filkins, et. al., 2000^{10} ; Li, 2006^{11} ; Kirk & Alessi, 2002^{12} ; Turner, 2004^{13}). How states and communities fare with the aging of their populations depends on what actions are taken now to prepare to meet the upcoming challenges and opportunities.

Research suggests that communities are not always designed to provide for older adults needs to remain active and socially connected (Kochera & Bright, 2006^{14}). Community centers that integrate the six dimensions of wellness physical, social, intellectual, emotional, occupational, and spiritual will maintain a healthier older adult segment (Kang & Russ, 2009^{15}). Providing programs that are attractive to and serve older adults will foster additional opportunities for wellness (Kang & Russ, 2009^{16}).

An increasingly rich knowledge base provides evidence that positive relationships, financial security, and access to services are related to mental and physical wellbeing in older adults (Turner, 2002^{17} ; Infeld & Whitelaw, 2002^{18} ; Skarupski & Pelkowski, 2003^{19}). Elders who have strong support systems either from inside or outside the biological family, are likely to report higher levels of life satisfaction than those who are socially isolated (Bull, et. al., 2001^{20} ; Infeld & Whitelaw, 2002^{21} ; Kochera & Bright, 2006^{22}). Studies have shown that older adults see their quality of life more positively and experience less social isolation when they have sustained support networks and ongoing affectionate relationships (Administration on Aging, 2001^{23}).

Since the population of those over 85 years is the fastest growing age group in the U.S., it is inevitable that family support will dwindle for many of the oldest individuals (Li, 2006^{24}). Fortunately, scholarly attention to aging is growing rapidly, and concurrently, increased attention is being given to delivering community-based health and health-related services to the elderly (Administration on Aging, 2001^{25}).

The impact of social connectedness and health in the elderly is well documented (Infeld & Whitelaw, 2002^{26} ; Kochera & Bright, 2006^{27} ; Filkins, et. al., 2000^{28}). For example, it is known that older adults who lack social ties are at risk for health-related problems (Kirk & Alessi, 2002^{29} ; Turner, 2004^{30}). Conversely, social support that is emotional, physical or financial has direct positive effects on health. Participation in daytime meal programs can enable seniors to obtain social support from peers and from center staff. In addition to increasing the daily intake of important nutrients, seniors who attend center meals on a regular basis become comfortable with both formal and informal community resources, such as transportation, recreation, health care, legal services, fitness programs and even home repair (Administration on Aging, 2001^{31}).

People in the U.S. today can anticipate living beyond 70, continuing to enjoy an extended and productive life. Kansas, like the rest of the Central Plains states and the U.S., is aging. In 2006, nearly half (48%) of those age 65+ lived in non-metropolitan (rural) areas, compared to 20%. In the U.S. as a whole this ranks Kansas at 10^{th} in the nation for non-metropolitan populations (Aging in Place Initiative, 2008^{32}).

In rural states like Oklahoma, 57 percent of the population lives outside urban areas. Thirteen and a half percent of the population in Oklahoma is 65 years and older. For a number of reasons, Nebraska has continually experienced over the years rural decline. The causal sequence leading to the current state of decline in the rural Great Plains is broadly accepted. Changes in agricultural technology have led to increased farm size and, thus, the number of farms and related businesses. Declining farm numbers have led to declining farm populations and outmigration of young people. Declining populations and outmigration result in reduced demand for goods and services, diminished job opportunities, and still more out-migration. Since the propensity to migrate tends to decline with age, out-migration from rural areas is highest among the young. Out-migration of young people results in declining birth rates and a residual elderly population, both of which further contribute to population decline.

In Nebraska, non-metropolitan counties are home to less than 50% of the total population, nearly two-thirds of the population age 65-years and older live in rural counties. Persons over the age of 65 comprise 21% of the population of Nebraska's small (under 2,500) communities, compared to 14% of the state. In 52 of those communities, seniors make up over 30% of the population (U.S. Census Bureau, 2005^{33}).

The purpose of this study was to examine current activities offered in community centers which contribute to the six dimensions of wellness; physical, social, emotional, occupational, intellectual and spiritual for rural older adults. Knowing the current status of activities offered would provide information to integrate additional activities that promote wellness for older adults within rural community centers.

Six Dimension Wellness Model

As the population increases in the coming years, there is disagreement among health care experts about whether older Americans will live longer and healthier or live longer but experience periods of chronic illness and disability. Proponents of the live longer and healthier model cite research that indicates older people have increased knowledge and awareness about the importance of health management (Montague & Stanley, 1998³⁴).

The desire for optimal health as we age, to be functionally able for as long as possible, has older adults embracing the concepts of wellness as a leading model of health management. This model incorporates a holistic perspective that integrates the six dimensions of wellness (Montague & Stanley, 1998^{35}). For the purpose of this study, the definition by Bill Hettler (2003^{36}), former Executive Director of the National Wellness Institute, has been selected as the working definition of wellness. Each dimension is explained more thoroughly below.

Physical wellness: Hettler (2003³⁷) defined physical wellness as encompassing the degree to which one maintains and improves cardiovascular fitness, flexibility, and strength. Furthermore, he stressed the importance of maintaining a healthy diet and attempting to produce bodily balance and harmony through awareness and monitoring of body feelings, internal states, physical signs, tension patterns, and reactions. His definition also included seeking appropriate medical care and taking action to prevent and detect illnesses. In sum, Hettler's definition of physical wellness encompassed one's attention to physical self-care, activity level, nutritional needs, and use of medical services.

Emotional wellness: Hettler (2003^{38}) conceptualized emotional wellness as a continual process that incorporates the awareness, constructive expression, and management of emotions, as well as a realistic self-assessment and positive approach to life (e.g., challenges, risks, and conflicts are viewed as healthy and as opportunities to develop further). He described emotional wellness as the awareness and acceptance of a wide range of feelings in one's self and others, as well as one's ability to constructively express, manage, and integrate feelings. He recognized that one's choices are the expression and integration of feelings, cognitions, and behaviors. An emotionally well person is flexible, open to development, able to function autonomously, and is aware of his or her limitations. Linking emotional and social wellness, Hettler stated that the relationships held by an emotionally well individual are interdependent and based upon mutual commitment, respect, and trust. In sum, Hettler defined emotional wellness as a continual process that includes an awareness and management of feelings, and a positive view of self, the world, and relationships.

Spiritual wellness: Hettler (2003^{39}) defined spiritual wellness as a worldview that gives unity and goals to thoughts and actions, as well as the process of seeking meaning, purpose in existence, and understanding of one's place in the universe. Spiritual wellness also included the appreciation of the depth and expanse of life and of the universe along with the acceptance and recognition of the transcendence of the unknown. Furthermore, spiritual wellness is focused on inner and relational harmony with others and the universe, as well as the search for a universal value system.

Intellectual wellness: Hettler (2003^{40}) defined intellectual wellness as the degree to which one engages one's mind in creative and stimulating activities, as well as the use of resources to expand one's knowledge. The definition is focused on the acquisition, development, application, and articulation of critical thinking. Intellectual wellness is one's commitment to lifelong learning and the effort to share knowledge with others. Finally, intellectual wellness was defined by Hettler as the focusing of one's skills and abilities on achieving a more satisfying life.

Occupational wellness: Hettler, (2003^{41}) included occupational wellness in his theory and defined it as the level of satisfaction and enrichment gained by one's work and the extent to which one's occupation allows for the expression of one's values. Furthermore, occupational wellness includes the contribution of one's unique skills and talents to the community in rewarding, meaningful ways through paid and unpaid work, as well as the balance between occupational and other commitments.

Social wellness: Hettler's (2003^{42}) definition of social wellness emphasized individuals in relation to others and to the environment. The relationship included the extent to which an individual contributes to the common welfare of the community and environment (e.g., volunteer and community support) and the level of interdependence with others and nature (e.g., social interaction, relationships and connectedness with nature). Hettler defined a socially well individual as one living in harmony with others working toward mutual respect and cooperation. Social wellness involved the active promotion of a healthy environment and the betterment of community; effective communication and healthy relationships with others (including sexual behaviors); and a balance and integration of self with others, the community, and nature.

Rural Community Centers

Senior centers were designed to help provide a buffer for some of the social, economic and physical losses experienced by older adults (Kirk & Alessi, 2002^{43} ; Turner, 2004^{44}). Senior centers in rural communities play a potentially important role in the rural service network (Li, 2006^{45}). Studies of services consistently find that rural older adult populations have a smaller number of and range of services available to them and that there is less accessibility to those services which are available (Kirk & Alessi, 2002^{46} ; Turner, 2004^{47}).

Senior centers have been established in many rural communities and are intended by funders to serve as mechanisms for providing social and health services as well as educational and recreational opportunities. Although expectations for senior centers have been high, the community and service functions of centers and their impact on rural older adults are not well documented (Li, 2006^{48}).

As older Americans age, community-minded organizations and individuals must closely scrutinize how communities are structured and how healthcare and social service systems respond to the needs of older citizens. Establishment and promotion of senior citizen centers has been an integral part of the Older Americans Act of 1965 which enabled the federal Administration on Aging as well as State units on Aging and local Area Agencies on Aging to plan, implement and monitor the development of services and support for the nation's aging population (Kirk, et. al., 2002^{49} ; Li, 2006^{50} ; Turner, 2004^{51}).

Senior centers are community facilities for the organization and delivery of a broad spectrum of services, including health, mental health, social, nutrition, and educational services and recreational activities for older individuals (Turner, 2004^{52}). Some centers serve as focal points to provide information and assistance services and to house their services in the same location (collocation) used by other providers of services to seniors (Skaruspski & Pelkowski, 2003^{53} ; Turner, 2004^{54} ; Infeld & Whitelaw, 2002^{55}).

According to the federal Administration on Aging (2001^{56}) , there are nearly 11,500 senior centers and over 75% of them are considered multipurpose, a distinction made based on the array of services offered. A multipurpose senior center is a community facility for the organization of

and delivery of a broad spectrum of services, including health, mental health, social, nutrition, and educational services and recreational activities for older individuals.

Many rural areas experience an aging of their populations over time, in some cases due to immigration of retirees and in other cases due to outmigration of younger populations and an aging-in-place of residents. In Kansas, there are 38 counties (all nonmetro) in which the population age 65 and over accounts for a significant portion (over 20%) of total population (U.S. Census Bureau, 2000^{57}).

In rural communities, the absence of other senior services often leaves senior centers as the only service, information and referral point for seniors. Specific factors that should be examined include whether current systems meet the demands of rural citizens, which demands the systems meet or not, and how these systems meet current demands while preparing for the massive growth of older adults expected in the future (Beverley, et al., 2005^{58}). Rural senior centers need to have all the necessary tools to serve their communities in the future.

Methods

Directors of rural senior centers in Kansas, Nebraska and Oklahoma were surveyed to determine what activities were being offered and how they addressed the six dimensions of wellness for older adults

The population of this study was rural senior centers in Kansas, Nebraska and Oklahoma. A convenience sample was obtained from the Area Agency on Aging directories for each state. Data was collected through a mail survey sent to the directors of these centers. The questionnaire was developed as open-ended questions. The questions began with an explanation about each of the six dimensions of wellness. For each dimension, the directors were asked to answer yes or no as to activities offered in their center. If the response was yes, the director was asked to describe the type of activities offered. For the analysis of data, lengthy answers were reduced and sorted into specific response categories through a coding process. Descriptive statistics were employed to summarize the obtained data. The statistics were focused on frequency and percentage of the activities offered in community centers. Since this was a qualitative research study, findings are not generalizable to rural senior centers elsewhere.

Results and Discussion

The questionnaire was sent to 885 community center directors throughout Kansas, Oklahoma, and Nebraska. Two hundred and thirteen respondents returned their questionnaires; 77 from Kansas, 42 from Nebraska and 94 from Oklahoma which provided a response rate of 24 percent. Results indicated that 15 percent of the centers in all three states offered activities for all six wellness dimensions. Sixteen percent of the Kansas centers offered activities for all six dimensions. Activities addressed were social, physical, emotional, spiritual, intellectual, and occupational needs in decreasing order.

Table 1

Percentages of activities offered for the six dimensions of wellness in Kansas

Wellness Dimension	Kansas
Social Wellness	82%
Physical Wellness	76%
Emotional Wellness	62%
Spiritual Wellness	51%
Intellectual Wellness	41%
Occupational Wellness	41%

Also, 16 percent of the Oklahoma centers offered activities for all six dimensions. Activities addressed were social, physical, emotional, spiritual, intellectual, and occupational needs in decreasing order.

Table 2

Percentages of activities offered for the six dimensions of wellness in Oklahoma

Wellness Dimension	Oklahoma
Social Wellness	87%
Physical Wellness	85%
Emotional Wellness	30%
Spiritual Wellness	60%
Intellectual Wellness	55%
Occupational Wellness	37%
1	

In addition, 16% of the Nebraska centers offered activities for all six dimensions. Activities addressed were social, physical, intellectual, occupational, emotional and spiritual needs in decreasing order.

Table 3 Percentages of activities offered for the six dimensions of wellness in Nebraska

Wellness Dimension	Nebraska	
Social Wellness	97%	
Physical Wellness	82%	
Emotional Wellness	43%	
Spiritual Wellness	29%	
Intellectual Wellness	65%	
Occupational Wellness	56%	

Activities in the three state comparison addressed were physical, emotional, spiritual, intellectual, occupational, and social needs. The following table shows a comparison of the centers in each state that offer activities to address the needs of the six wellness dimensions. The percentages were calculated for each dimension, within each state.

Table 4Percentages of activities offered for the six dimensions of wellness in three states

Wellness Dimension	Kansas	Oklahoma	Nebraska
Social Wellness	82%	87%	97%
Physical Wellness	76%	85%	82%
Emotional Wellness	62%	30%	43%
Spiritual Wellness	51%	60%	29%
Intellectual Wellness	41%	55%	65%
Occupational Wellness	41%	37%	56%

Physical Wellness Comparison

For the purpose of this study, the physical dimension of wellness was subdivided into three different categories, exercise, nutrition, and diet. Most of the centers that provided exercise activities did so using weights, chair exercise, stationary bicycles, walking groups, and dancing classes. Nutrition and diet were satisfied through the use of nutritious group meals, speakers and pamphlets on the topic, and diabetic or low sodium options.

Emotional Wellness Comparison

The results of the surveys showed twice as many Kansas centers offered activities for the emotional dimension with 62 percent compared to 43 percent in Nebraska and 30 percent in Oklahoma. Although a significantly higher number of senior centers in Kansas focused on the emotional dimension, all three states utilized support groups and speakers to satisfy this need.

Spiritual Wellness Comparison

Many of the centers that do not offer spiritual activities stated that due to government funding, religious activities were not allowed. These activities were more solitary than activities related to the other dimensions. Prayers before meals, devotionals, preacher visits, gospel music, and bible studies were among the activities identified.

Intellectual Wellness Comparison

The most frequent activity within all the centers was participating in education programs: (eg., computers, word puzzles, quilting, trips, library, and training). Speakers and classes were also

provided on a monthly basis, and some centers even worked with community colleges to set up non-credit educational courses for the senior citizens.

Occupational Wellness Comparison

Activities that contributed to the occupational dimension were less frequently identified. Most centers provided opportunities for the residents to volunteer within the center. These volunteer activities included assisting at the center's front desk, answering phones, meals on wheel delivery, and meal preparation and clean up. The residents were also encouraged to volunteer in the community, including making quilts to be donated.

Social Wellness Comparison

Respondents from each of the states indicated that meals, morning coffee, support groups, games, such as bingo, dominos, cards, billiards, puzzles, and parties/gatherings for family and friends, were frequent social activities aimed at creating and maintaining healthy relationships.

Activities in the centers vary due to the type of older adults using the facility. However, many of the activities are generated by the users of the centers. The senior centers established programs; however, older adults will augment these with interests of their own as needed. Activities for the social dimension were most frequently and diversely offered but they are often less professional activities such as conversing with friends, church groups and other social activities such as card games and billiards.

The continued development of home-based services (meals-on-wheels), community-based programs (i.e., senior centers), and supportive services (i.e., respite care, telephone reassurance) provide older adults with a broad set of choices. These possibilities can enable more elderly persons to live in their own homes longer, meeting their desire for independence and self-reliance. However, the ability to remain independent in the face of declining abilities often depends on planning ahead to make sure that the resources and alternatives are in place. Perhaps the challenge is helping more adults plan realistically for their elder years. This need may become increasingly important as the pendulum seems to be swinging in the direction of requiring more individual and local responsibility in meeting needs when possible.

Conclusions and Implications for Further Study

Although these study findings should enlighten aging service providers, planners, and policymakers regarding patterns of utilization of senior centers, the administration, staff and advocates of the senior center (now a viable community-based support of independent living) see a looming challenge in replenishing senior center populations with younger cohorts of participants. That challenge is called "age creep", a gradual increase in the median age of senior center participants.

However, part of the solution to the dilemma may be in finding better ways of addressing the specific needs of individuals, using the senior center as a hub or base of operation to link individuals to the wider array of activities and services in their communities, as opposed to the

traditional approach of relying solely upon the creation of new group activities in the senior center to attract new members. The focus for such linkages should be on examining variations of personal characteristics of participants, their preferences for activities based upon assessed needs, and how senior centers might assist individuals in developing and achieving personal goals that match their individual interests, values, preferences and needs. Documentation is needed to show how senior centers aid individuals to expand their locus of control in their retirement years (Turner, $2004^{\frac{59}{2}}$).

The comprehensive whole person wellness model that includes wellness dimensions needs to be addressed further in rural senior centers for older adults (Kang & Russ, 2009⁶⁰). Activities for the intellectual and occupational dimensions of wellness were offered less frequently in senior centers while activities for the social dimension were most frequently and diversely offered. More activities/services to promote the wellness of all six dimensions are necessary for older adults in rural communities. Educational materials can be developed to educate senior centers related to the whole person wellness model. In pursuit of a more efficient use of limited resources to meet the growing demand, diverse programs that can contribute to not only one dimension of wellness but several dimensions need to be investigated.

In conclusion, this study infers that senior centers in rural communities have the potential to address many of the needs of local older adults and their communities. Because rural older adults may have greater needs and fewer personal resources, and because of the lack of alternative resources in rural communities, research into the development and delivery of functions of centers is important. This type of understanding can facilitate the development of senior centers which meet the whole person wellness model for older adults.

End Notes: Russ, Randall. "Wellness Activities of Rural Older Adults in the Great Plains." Online Journal of Rural Research & Policy (7.1, 2012).

- <u>1.</u> Hettler, B. (1980). Wellness promotion on a university campus: Family and community health *Journal* of *Health Promotion and Maintenance*, 3, 77-95. [back]
- 2. Hayward, K. (2005). Facilitating interdisciplinary practice through mobile service provision to the rural older adult. *Geriatric Nursing*, 26, 29-33. [back]
- Hayward, K. (2005). Facilitating interdisciplinary practice through mobile service provision to the rural older adult. *Geriatric Nursing*, 26, 29-33. [back]
- <u>4.</u> Montague, J. & Stanley, D. (1998). Designing and developing wellness centers for older adults. Wellness Management, retrieved from <u>http://seniorfitness.net</u>, October 31, 2006. [back]
- 5. Kang, M., & Russ, R. (2009). Activities that promote wellness for older adults in rural communities. Journal of Extension, 47, 1-5. [back]
- 6. Bull, C., Krout, J., Rathbone-McCuan, E., & Shreffer, M. (2001). Access and issues of equity in remote/rural areas. *The Journal of Rural Health*, 17, 356-359. [back]
- 7. Infeld, D., & Whitelaw, N. (2002). Policy initiatives to promote healthy aging. *Clinics in Geriatric Medicine*, 18, 627-642. [back]
- 8. Skarupski, K. & Pelkowski, J. (2003). Multipurpose senior centers: Opportunities for community health nursing. Journal of Community Health Nursing, 20, 119-132. [back]
- 9. Kochera, A., & Bright, K. (2006). Livable communities for older people. *American Society on Aging*, 29, 32-36. [back]
- 10. Filkins, R., Allen, J., & Cordes, S. (2000). Predicting community satisfaction among rural residents: An integrative model. *Rural Sociology*, 65, 72-86. [back]
- 11. Li, H. (2006). Rural older adults' access barriers to in-home and community-based services. *Social Work Research*, 30, 109-118. [back]
- 12. Kirk, A. & Alessi, H. (2002). Rural senior service centers: A study of the impact on quality of life issues. *Activities, Adaptation and Aging*, 26, 51-64. [back]
- 13. Turner, K. W., (2004). Senior citizens centers: what they offer, who participates and what they gain. *Journal of Gerontological Social Work*, 43, 36-47. [back]
- Kochera, A., & Bright, K. (2006). Livable communities for older people. American Society on Aging, 29, 32-36. [back]
- <u>15.</u> Kang, M., & Russ, R. (2009). Activities that promote wellness for older adults in rural communities. *Journal of Extension*, 47, 1-5. [back]
- <u>16.</u> Kang, M., & Russ, R. (2009). Activities that promote wellness for older adults in rural communities. *Journal of Extension*, 47, 1-5. [back]
- <u>17.</u> Turner, K. W., (2004). Senior citizens centers: what they offer, who participates and what they gain. *Journal of Gerontological Social Work*, 43, 36-47. [back]

- <u>18.</u> Infeld, D., & Whitelaw, N. (2002). Policy initiatives to promote healthy aging. *Clinics in Geriatric Medicine*, 18, 627-642. [back]
- <u>19.</u> Skarupski, K. & Pelkowski, J. (2003). Multipurpose senior centers: Opportunities for community health nursing. *Journal of Community Health Nursing*, 20, 119-132. [back]
- 20. Bull, C., Krout, J., Rathbone-McCuan, E., & Shreffer, M. (2001). Access and issues of equity in remote/rural areas. *The Journal of Rural Health*, 17, 356-359. [back]
- 21. Infeld, D., & Whitelaw, N. (2002). Policy initiatives to promote healthy aging. Clinics in Geriatric Medicine, 18, 627-642. [back]
- 22. Kochera, A., & Bright, K. (2006). Livable communities for older people. American Society on Aging, 29, 32-36. [back]
- 23. Administration on Aging (2001). Senior Centers: Administration on Aging: Fact Sheet. http://www.aoa.dhhs.gov/factsheet/seniorcenters.html. [back]
- 24. Li, H. (2006). Rural older adults' access barriers to in-home and community-based services. Social Work Research, 30, 109-118. [back]
- 25. Administration on Aging (2001). Senior Centers: Administration on Aging: Fact Sheet. http://www.aoa.dhhs.gov/factsheet/seniorcenters.html. [back]
- 26. Infeld, D., & Whitelaw, N. (2002). Policy initiatives to promote healthy aging. Clinics in Geriatric Medicine, 18, 627-642. [back]
- 27. Kochera, A., & Bright, K. (2006). Livable communities for older people. *American Society on Aging*, 29, 32-36. [back]
- 28. Filkins, R., Allen, J., & Cordes, S. (2000). Predicting community satisfaction among rural residents: An integrative model. *Rural Sociology*, 65, 72-86. [back]
- 29. Kirk, A. & Alessi, H. (2002). Rural senior service centers: A study of the impact on quality of life issues. *Activities, Adaptation and Aging*, 26, 51-64. [back]
- <u>30.</u> Turner, K. W., (2004). Senior citizens centers: what they offer, who participates and what they gain. *Journal of Gerontological Social Work*, 43, 36-47. [back]
- <u>31.</u> Administration on Aging (2001). Senior Centers: Administration on Aging: Fact Sheet. <u>http://www.aoa.dhhs.gov/factsheet/seniorcenters.html</u>. [back]
- <u>32.</u> Aging in Place Initiative. (2008). "Getting communities on track for an aging population Retrieved from http://www.aginginplaceinitiative.org on July 1, 2009. [back]
- 33. U.S. Census Bureau, Census 2000. Retrieved from <u>http://www.census.gov/main/www/cen2000.html</u> on January 12, 2009. [back]
- <u>34.</u> Montague, J. & Stanley, D. (1998). Designing and developing wellness centers for older adults. *Wellness Management*, retrieved from <u>http://seniorfitness.net</u>, October 31, 2006. [back]
- <u>35.</u> Montague, J. & Stanley, D. (1998). Designing and developing wellness centers for older adults. *Wellness Management*, retrieved from <u>http://seniorfitness.net</u>, October 31, 2006. [back]
- <u>36.</u> Hettler, B. (1980). Wellness promotion on a university campus: Family and community health *Journal* of *Health Promotion and Maintenance*, 3, 77-95. [back]

- <u>37.</u> Hettler, B. (1980). Wellness promotion on a university campus: Family and community health *Journal* of *Health Promotion and Maintenance*, 3, 77-95. [back]
- <u>38.</u> Hettler, B. (1980). Wellness promotion on a university campus: Family and community health *Journal* of *Health Promotion and Maintenance*, 3, 77-95. [back]
- <u>39.</u> Hettler, B. (1980). Wellness promotion on a university campus: Family and community health *Journal* of Health Promotion and Maintenance, 3, 77-95. [back]
- <u>40.</u> Hettler, B. (1980). Wellness promotion on a university campus: Family and community health *Journal* of *Health Promotion and Maintenance*, 3, 77-95. [back]
- <u>41.</u> Hettler, B. (1980). Wellness promotion on a university campus: Family and community health *Journal* of *Health Promotion and Maintenance*, 3, 77-95. [back]
- 42. Hettler, B. (1980). Wellness promotion on a university campus: Family and community health *Journal* of Health Promotion and Maintenance, 3, 77-95. [back]
- 43. Kirk, A. & Alessi, H. (2002). Rural senior service centers: A study of the impact on quality of life issues. Activities, Adaptation and Aging, 26, 51-64. [back]
- 44. Turner, K. W., (2004). Senior citizens centers: what they offer, who participates and what they gain. *Journal of Gerontological Social Work*, 43, 36-47. [back]
- 45. Li, H. (2006). Rural older adults' access barriers to in-home and community-based services. Social Work Research, 30, 109-118. [back]
- 46. Kirk, A. & Alessi, H. (2002). Rural senior service centers: A study of the impact on quality of life issues. *Activities, Adaptation and Aging*, 26, 51-64. [back]
- <u>47.</u> Turner, K. W., (2004). Senior citizens centers: what they offer, who participates and what they gain. *Journal of Gerontological Social Work*, 43, 36-47. [back]
- <u>48.</u> Li, H. (2006). Rural older adults' access barriers to in-home and community-based services. Social Work Research, 30, 109-118. [back]
- 49. Kirk, A. & Alessi, H. (2002). Rural senior service centers: A study of the impact on quality of life issues. Activities, Adaptation and Aging, 26, 51-64. [back]
- 50. Li, H. (2006). Rural older adults' access barriers to in-home and community-based services. Social Work Research, 30, 109-118. [back]
- 51. Turner, K. W., (2004). Senior citizens centers: what they offer, who participates and what they gain. *Journal of Gerontological Social Work*, 43, 36-47. [back]
- 52. Turner, K. W., (2004). Senior citizens centers: what they offer, who participates and what they gain. *Journal of Gerontological Social Work*, 43, 36-47. [back]
- 53. Skarupski, K. & Pelkowski, J. (2003). Multipurpose senior centers: Opportunities for community health nursing. *Journal of Community Health Nursing*, 20, 119-132. [back]
- 54. Turner, K. W., (2004). Senior citizens centers: what they offer, who participates and what they gain. *Journal of Gerontological Social Work*, 43, 36-47. [back]
- 55. Infeld, D., & Whitelaw, N. (2002). Policy initiatives to promote healthy aging. *Clinics in Geriatric Medicine*, 18, 627-642. [back]

- 56. Administration on Aging (2001). Senior Centers: Administration on Aging: Fact Sheet. http://www.aoa.dhhs.gov/factsheet/seniorcenters.html. [back]
- 57. U.S. Census Bureau, Census 2000. retrieved from http://www.census.gov/main/www/cen2000.html on January 12, 2009. [back]
- 58. Beverly, C. J., Mcatee, R., Costello, J. Chernoff, R., & Casteel, J. (2005). Needs assessment of rural communities: a focus on older adults. *Journal of Community Health*, 30(3), 197-212. [back]
- 59. Turner, K. W., (2004). Senior citizens centers: what they offer, who participates and what they gain. *Journal of Gerontological Social Work*, 43, 36-47. [back]
- 60. Kang, M., & Russ, R. (2009). Activities that promote wellness for older adults in rural communities. *Journal of Extension*, 47, 1-5. [back]

Author Information

Randall Russ (back to top)

Dr. Randall Russ is an Associate Professor in Interior Design in the Department of Design, Housing and Merchandising at Oklahoma State University. Dr. Russ' research interests include wellness of rural older adults, aging in place and the impact of the built environment on wellness.

