

FOCUS

ON

Empowering Older Adults with Assistive Technology

Oklahoma Cooperative Extension Service • Oklahoma State University
Spring 2010

Adults 65 years of age and older are the most rapidly increasing population group and it is estimated that one in every five Americans will be 65 years or older by the year 2030. The majority of U.S. older adults live in community rather than institutional settings and community-dwelling older adults aspire to live independently and in good health for as long as possible. Adequate nutrition is an important factor in maintaining health, functional independence and quality of life.

Although many community-dwelling older adults live full and independent lives, physical changes that occur with aging can result in decreased functional ability. Functional limitations can affect older adults' abilities to perform food-related activities such as transportation, grocery shopping, preparing food and eating, which can impact food intake. Assistive technology (AT) is any device that improves engagement in everyday life. AT can also improve ability, safety and independence among older adults. Decreased food intake can begin the downward spiral of weight loss and malnutrition, which is a frequent and serious problem among older adults.

Although many consume diets that need improvement, those living in rural areas have been reported to be at increased nutritional risk. Having difficulty with food-related activities may contribute to nutritional risk among older adults living in rural areas due to limited access to grocery stores and lack of community services to assist with transportation, grocery shopping and food preparation.

Oklahoma Ranks:

Source: <http://apps.nccd.cdc.gov/saha/>

- 43rd in overall life expectancy.
- 6th in population percentage over the age of 65 with any disability.
- 6th in the perceived need for assistive technology among adults over 65.
- 16th in the percentage of adults over 65 who live at or below the poverty line.
- 50th in daily food choices of older individuals.

The Aging Population

Source: <http://agingstats.gov>

According to the Federal Interagency Forum on Age-Related Statistics:

- Approximately 37 million Americans are age 65 or older.
- That population is expected to double by the year 2030.
- The percentage of individuals 65 or older living in assisted care facilities has declined steadily over the past 20 years as older adults increasingly choose to remain in a community environment.
- Life expectancy for individuals over 65 has increased steadily over the last century, and now averages between 15 and 20 years.

As a result of these concerns, a multidisciplinary team including Jan Johnston, Oklahoma Cooperative Extension Service Gerontology specialist; Janice Hermann, Oklahoma Cooperative Extension Service Nutrition specialist; Whitney Brosi, Assistant Professor in the Department of Human Development and Family Sciences at Oklahoma State University, and Linda Jaco, Director of Sponsored Programs and Oklahoma ABLE Tech at Oklahoma State University received a USDA-CSREES Rural Health and Safety Education grant (USDA CSREES RHSE grant # 2007-04890). This grant helped evaluate Oklahoma rural community-dwelling older adults and their formal and informal support (family and community) regarding food-related activities. These included transportation, grocery shopping, food preparation and eating, all a part of the Oklahoma Cooperative Extension Service curriculum. The curriculum, "Empowering Older Adults with Assistive Technology to Shop, Cook and Eat" is designed to educate and empower Oklahoma older adults, their family members and older adult community providers about assistive technology for transportation, grocery shopping, preparing food and eating.



Glenn Muske
Interim Assistant Director
Oklahoma Cooperative Extension Service



COACH- Connecting Older Adults & Communities for Health



The COACH mission is devoted to addressing the needs of older Oklahomans by connecting older individuals with their communities through education, resources and support.

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Oklahoma Cooperative Extension Service Curriculum

In an effort to increase awareness and access of assistive technology to empower Oklahomans to grocery shop, cook and eat, the interdisciplinary team met with an advisory team of 20 Oklahoma Cooperative Extension Service County Educators from across the state and developed an Oklahoma



Kitchen Roll-About is ideal for those with weakness in hands/fingers or painful wrists/forearms. Also for one-handed users who find lifting difficult. It assists with strength, dexterity, stamina, mobility and cooking.

Cooperative Extension Service curriculum entitled.

The curriculum “Empowering Older Adults with Assistive Technology to Shop, Cook and Eat” incorporates the concept of empowerment by providing educational programming for older adults as individuals, recognizing family members as a form of informal support and utilizing older adult community providers as a means of formal support. The curriculum also includes a kit of example assistive technology devices for grocery shopping, food preparation and eating that Oklahoma Cooperative Extension Service Educators can use to help increase awareness of AT among older adults, family members and older adult community providers. In October 2009 and January 2010, the interdisciplinary team provided in-service training on the curriculum to Oklahoma Cooperative Extension Service county educators and Oklahoma Cooperative Extension Service Community Nutrition Education Program Area Coordinators.

Needing assistance with food-related instrumental activities of daily living may



From October 6, 2009 In-service held in Oklahoma City at the Oklahoma County Cooperative Extension Service office. 67 Educators attended.

contribute to weight loss among Oklahoma rural community-dwelling older adults by impacting food intake. Weight loss, among older adults, is a leading indicator of malnutrition and a significant predictor of death. Many signs of malnutrition are often overlooked or mistaken for normal aging. Early intervention addressing inadequate food intake is essential before progression to overt malnutrition occurs. Many factors associated with malnutrition can be reversed if addressed early, which could help older adults maintain independence and support adequate food intake. The goal of this project was to help arm Oklahoma Cooperative Extension Service County Educators with a curriculum and tools to help empower older adults, family members and community providers to maintain food intake with AT.

For more information about the curriculum, contact your local county Cooperative Extension Service Educator.

An OCES partner, Oklahoma ABLE Tech is a statewide AT program located at the Seretean Wellness Center on the OSU-Stillwater campus. ABLE Tech promotes the increased access and acquisition of AT devices and services for people with disabilities. For more information about ABLE Tech, call 1-800-257-1705 (for TTY: 1-888-885-5588) or visit <http://okabletech.okstate.edu>.

Early Results of the Curriculum

Oklahoma Cooperative Extension Service County Educators Gale Mills and Susan Lovelace have provided the older adult Individual lesson in Nowata, Rogers, Tulsa, Washington and Creek Counties and Oklahoma Cooperative Extension Service County Educator Jan Maples has provided the Community lesson to older adult community care providers in Okfuskee County as a result of the curriculum:

- 87% of participants reported the program had increased their awareness of assistive technology devices.
- 63% reported they felt more comfortable using assistive technology devices for shopping, cooking and eating as a result of the program.
- 67% of participants reported the program had increased their awareness of the concept of empowerment.
- 50% reported they felt more likely to use information about empowerment in their own lives as a result of the program.
- 57% reported they felt they would be more likely to contact Oklahoma ABLE Tech about assistive technology as a result of the program.
- 57% reported they felt they would be likely to contact their County Extension Educator about topics covered in this program.

Evaluation of Rural Oklahoma Older Adults Related to Transportation, Grocery Shopping, Food Preparation and Eating

One part of the evaluation focused on Oklahoma rural community-dwelling older adults' ability to perform food-related activities including transportation, grocery shopping, food preparation and reported changes in food intake and weight. Rural Oklahomans, 65 years of age and older, were surveyed via telephone. Participants were selected using random digit dialing from all of Oklahoma's 68 rural counties. Survey questions were included to provide data on demographic characteristics; the need for assistance with transportation, grocery shopping, and food preparation; health status; decreases in food intake over the past three months; and involuntary weight change over the past three months.

Three hundred and sixty-nine rural community-dwelling Oklahomans, 65 years of age and older, completed the telephone survey. The majority of participants were female (73 percent) and Caucasian (86 percent), and 65 to 74 years of age (55 percent). Fifty-one percent of participants were married and 35 percent were widowed. The majority of participants had either a high school or some college education (59 percent) and annual incomes below \$40,000 (68 percent). Forty-five percent of participants reported they lived alone and 55 percent reported they lived with others.

Although sixty-two percent of participants reported their health status was excellent to good, needing physical assistance with transportation, grocery shopping and food preparation was reported by 25 percent, 21 percent and 16 percent of participants, respec-

tively. Over the past three months, 25 percent reported their food intake had decreased and 17 percent reported involuntary weight loss.

Among participants who reported needing physical assistance with food-related functional abilities related to transportation, 50 percent reported having difficulty driving to the store and 33 percent had difficulty getting in and out of a vehicle. Connected with grocery shopping; 46 percent reported having difficulty getting groceries in and out of a vehicle, 39 percent each reported having difficulty moving around in the store and getting items off the shelves, and 22 percent had difficulty reading labels on cans or shelves. Associated with food preparation; 58 percent reported having difficulty opening a jar, 42 percent had difficulty carrying a five pound bag, 22 percent had difficulty holding utensils while cutting, turning or stirring, and approximately 14 percent each reported having difficulty with moving objects across a counter top or table, turning faucets on/off, and using timers or thermometers.

Most importantly, participants who reported needing physical assistance with grocery shopping or food preparation were significantly more likely to report their food intake had decreased over the past three months. In addition, participants who reported decreased food intake or needing physical assistance with transportation or grocery shopping were significantly more likely to report involuntary weight loss during the past three months.

Weight loss, among older adults, is a leading indicator of malnutrition and a significant predictor of death; however, nutritional status is severely compromised by the time weight loss occurs. Functional disabilities preventing or altering older adults' ability to obtain and prepare food can contribute to weight loss by impacting food intake.

Many physical limitations that community-dwelling older adults experience related to transportation, grocery shopping, food preparation and eating could be addressed in a

number of ways such as increasing awareness and access of assistive technology devices designed to facilitate independent living. Assistive technology is any device or piece of equipment that helps a person engage in life more easily. Every state and territory in the United States has an assistive technology act program. In Oklahoma, Oklahoma ABLE Tech administers the assistive technology act program. The goals of the assistive technology act program are to increase consumer access and acquisition of assistive technology devices. Increased assistive technology access is accomplished through device demonstration centers and device short-term loans. Increased assistive technology acquisition is accomplished through device reutilization (exchange or reuse) programs and device state financing activities (low interest bank loans).



The food bumper guard is practical for people who tend to push food off the plate because of a lack of coordination. Sanitary food bumpers clip onto any circular dinner plate and provide walls against which food may be pushed onto forks or spoons. Plastic bumpers fit plate diameters 9 to 11 inches. Assists with strength, dexterity, stamina, sensory, mobility and eating.

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OKLAHOMA COOPERATIVE EXTENSION SERVICE
U.S. DEPARTMENT OF AGRICULTURE
OKLAHOMA STATE UNIVERSITY
STILLWATER, OK 74078

ADDRESS SERVICE REQUESTED



Okfuskee County Dept. of Human Services staff members---receiving their educational packets---and trying out the assistive technology devices---at the Empowering Older Adults introduction/community provider program taught during their recent staff meeting.