

SNAP-Ed Toolkit

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Bingocize®

Western Kentucky University Center for Applied Science in Health & Aging

Overview

Exercise can help prevent chronic diseases and falls in older adults, but unfortunately, less than 15% of older adults exercise regularly. Many older adults report that traditional exercise programs are not enjoyable, leading to inactivity and related health issues. Bingocize® offers a unique solution that mixes exercise, health education, and bingo to help overcome health problems in participants across the entire spectrum of care. It's completely adaptable for all types of facilities and is beneficial for all ranges of physical and mental ability. Evidence shows social, cognitive, and physical improvements when Bingocize® is used, plus, it's FUN! Bingocize® is a 10-week program designed to increase physical activity and reduce sedentary behavior. Specifically, Bingocize® can increase older adults' functional fitness, knowledge of falls prevention, and social engagement in a variety of settings, including community senior centers and congregate meal sites. The program combines a bingo-like game with physical activity and/or health education (falls prevention and nutrition). Trained lay leaders may select between separate units that focus on exercise-only, exercise and falls prevention, or exercise and nutrition. Each unit includes a leader's script for each session, participants' materials, and "take home" cards for participants to complete exercises and tasks at home to reinforce the weekly health education information. Participants play Bingocize® twice per week on nonconsecutive days, with each 45-60 minute session consisting of exercises (range of motion, balance, muscle strengthening, and endurance exercises) and/or health education questions. The program is pre-approved by the National Council on Aging as an evidence-based falls prevention program and qualifies for Title IIID funding. The program can be delivered both using a printed version or mobile app. *The mobile app is considered an add-on and is not required to implement and complete any of the Bingocize® units.* Organizations deciding to purchase the mobile app can choose to use the printed version and/or the mobile app. This provides a versatile option for organizations with multiple facilities because some facilities may have strong WIFI and access to electronic devices (tablets or phones) making the mobile app a good option. However, some facilities may choose to use only the printed version because they lack the technical resources, or their participants just prefer printed materials. To view a short video of the program in action, visit <https://youtu.be/meCfC0CU4fg> **Target Behavior:** Healthy Eating, Physical Activity and Reducing Screen Time **Intervention Type:** Direct Education

Intervention Reach and Adoption

Bingocize® targets adults and older adults in community, faith-based, health care, and USDA program (not National School Lunch Program) settings. The program was designed for community-dwelling older adults of all ethnicities and socioeconomic strata. To date, the program has been used in community senior centers, adult daycares, certified nursing homes, assisted living/independent living facilities, memory care facilities, and hospitals/trauma centers. The number of participants has varied, based on the type of facility. At the community senior centers and assisted living/independent living facilities, the average number of participants ranged from 8-20 people per group, while certified nursing homes often attract over 20. **Setting:** Community (Live), Faith-based community, Health care, Indian Tribal Organizations, USDA program sites (not National School Lunch Program) **Target Audience:** Adults, Older Adults **Race/Ethnicity:** All

Intervention Components

Bingocize® includes a program leader manual and curriculum, participants' curriculum, and exercise equipment. These intervention components are essential to ensure participants participate in the exercise program and engage in the health education curriculum. Participants (Bingocizers™) complete a series of strategically inserted exercises, which can be modified to increase or decrease the intensity and volume of exercise, based on participants' abilities. Health education questions are also inserted into the game to increase participants' knowledge on certain areas of health, such as falls prevention and nutrition. An example of a typical sessions' proceedings are shown below: Step 1: The leader prepares the room and materials before participants arrive. The leader's instructions for each session are printed, and the participant binders are completed and placed on the table in front of each chair. If using the app, a leader will get all tablets ready for participants and get the game started on their tablet. Step 2: If the leader chooses to use the bingo and exercise-only unit, the session consists of bingo rolls and exercises. If the leader chooses to use the bingo, exercise, and falls prevention or nutrition education, the session will consist of bingo rolls, exercises, and health education questions. Step 3: The leader starts the session by reading the introductory information at the beginning of each session to the participants. The leader asks participants if they have any questions before beginning the game. Step 4: Each session begins with three bingo rolls. After the three rolls, the health education question is read to the participants along with the potential answer responses. As the questions and answer responses are read, the participants are asked to follow along in their participant manuals. Participants are given time to think about their answer selection. The participants interact with the material by circling the answer they believe is correct. After providing time for the participants to circle an answer, the correct answer is read to the participants. If they did not choose the correct answer, they are asked to place an "x" over the incorrect answer and circle the correct answer. Now, the additional information accompanying the correct answer is read to the participants. This information expounds upon the correct answer so participants understand why the answer is correct and will provide practical information they can use after the session is over. Throughout the 10-week curriculum, fun and interesting trivia questions are also inserted to add more fun to the game. Step 5: The session continues with bingo rolls, a series of exercises, followed by more health education, and so on. When a participant ultimately wins the game of bingo, a prize is awarded, and then the session continues. There are typically at least two winners during each session, and more than one participant may win a particular game. Sessions are concluded by playing bingo until a final winner is announced. Prizes are awarded to game winners. Nutrition-focused prize packages are available from WKU, or facilities can purchase other types of small prizes. Participants are encouraged to take home their binders to review the questions and correct answers and bring them back for the next session. Step 6: After completing the first Bingocize® session of the week, the appropriate "take-home Bingocize® card" is distributed to each participant. Instructions are provided for the participants to emphasize the objective of the card, which is to encourage exercise and completion of specific topic-related tasks

throughout the week. The specific tasks are related to the health education topic for that week. For example, during specific Bingocize® sessions participants are educated about fall hazards in their homes. One or more of the tasks on the take-home cards may require them to check safe placement of their throw-rugs and check for proper lighting near outside stairs. They may also be asked to complete specific exercises at home. After they complete the task/exercise, they may fill in the square on the take-home Bingocize® card. Participants bring their take-home cards to the first session of the following week. Those who complete all of the exercises and/or tasks (all of the squares filled in) receive a prize.

Intervention Materials

The available Bingocize® materials include:

- Reusable *Bingocize® in a Box*: Official Bingocize® shirt for a leader, leader training manual, and equipment for 20 participants, including resistance bands and therapy balls.
- Educational units and marketing materials for participants and are available for download on the online training site.

The online training site is available here: www.bingocize.com

Intervention Costs

Costs include a 2-year licensing fee of \$250.00 per organization, per county; \$150.00 per person online training (recertify after two years for \$75.00); and \$250.00 (+ shipping) for *Bingocize® in a Box* (contains equipment for the program).

Evidence Summary

Bingocize® conducted community-based evaluations and included rural and lower-income older adults (> 60 years old), most suffering from multiple chronic health conditions. The overall objectives for these investigations were to determine the effect of Bingocize® on functional performance, gait, health activation, cognition, and health knowledge (falls prevention/osteoarthritis). These investigations highlighted significant improvements in older adults' upper and lower body strength, knowledge of falls prevention/osteoarthritis, gait, health activation, and specific aspects of cognition. Multiple research studies, as well as actual implementation in older adult facilities, confirmed program leaders and participants accepted the Bingocize® program. For example, participant adherence during studies was 93%, and retention was above 90%. Published research includes:

- [Older Adults' Functional Performance and Health Knowledge After a Combination Exercise, Health Education, and Bingo Game](#)
- [A Mobile Application for Improving Functional Performance and Health Education in Older Adults: A Pilot Study](#)
- [Functional Performance in Older Adults after a Combination Multicomponent Exercise Program and Bingo Game](#)

Evidence-based Approach: Research-tested

Evaluation Indicators

Based on the SNAP-Ed Evaluation Framework, the following outcome indicators can be used to evaluate intervention progress and success.

	Readiness and Capacity – Short Term (ST)	Changes – Medium Term (MT)	Effectiveness and Maintenance – Long Term (LT)	Population Results (R)
Individual	ST3			
Environmental Settings				
Sectors of Influence				

- ST3a: Physical activity and leisure sport
- ST3b: Physical activity when you breathed harder than normal
- ST3c: Physical activity to make your muscles stronger (muscular strength)

Evaluation Materials

Certified leaders are required to track session attendance and administer an assessment to the participants before the first session and after the last session of the program. Attendance and completed pre/post assessment forms must be scanned and emailed to bingocizedata@wku.edu. All forms and outcome measure instructions are available on the online training website. Certified leaders also complete an evaluation of the online training.

- Program completers must attend 80% or 16 of the 20 sessions.

Additional Information

Website: The Bingocize® website (<http://www.bingocize.com/>) includes an overview of research conducted, curriculum reinforcements, participant testimonials, and frequently asked questions. **Contact Person:** K. Jason Crandall, PhD Associate Professor and Director Western Kentucky University Center for Applied Science in Health and Aging bingocize@wku.edu