Stay Strong, Stay Healthy (SSSH)

University of Missouri Extension

Overview

Stay Strong, Stay Healthy (SSSH) is a direct education intervention designed to help older adults increase physical activity, decrease sedentary behaviors, increase fruit and vegetable consumption, and sustain physical activity participation and healthy eating behaviors post program. SSSH strives to meet the need for effective community-based physical activity (PA) and nutrition programs, so classes are offered by trained SSSH instructors in familiar locations such as churches, community centers, and senior centers. SSSH consists of 16 one-hour sessions over eight weeks. Participants complete a warmup, a prescribed set of upper- and lower-body strengthening exercises, and a cool-down. SSSH challenges participants through incremental increases in exercise volume and intensity. Each PA session is followed by a nutrition lesson, and lessons are tailored to older adults by addressing topics such as fiber, bone health, and vitamins and minerals for healthy aging. In addition to weekly group classes, participants are encouraged to complete the program on their own once a week, including preparation of the recipes. After the course ends, participants are still encouraged to continue at home or with a community group. The overall goal of SSSH is to increase PA and improve nutrition behavior to help seniors maintain independence. **Target Behavior:** Healthy Eating, Physical Activity and Reducing Screen Time **Intervention Type:** Direct Education

Intervention Reach and Adoption

SSSH targets older adults in community settings, including community centers, churches, senior centers, and area agencies on aging. Almost 90% of classes occur within the community setting, with roughly 10% occurring in other settings such as worksites or healthcare venues. These community settings where SSSH is offered serve as opportunities for policy, systems, and environmental (PSE) change, and community support along with PSE change allows for additional healthy changes to occur at these sites as well. **Setting:** Community (Live), Faith-based community, Health care, Indian Tribal Organizations, Worksite (Work) **Target Audience:** Older Adults **Race/Ethnicity:** No special focus
Intervention Components

SSSH requires its instructors to become certified, and certification consists of an online training course and face-to-face training. Instructors must demonstrate proficiency in leading group exercises and teaching the nutrition lessons. Then, instructors must sign an agreement, attend training updates, and follow SSSH protocol. Furthermore, participants must complete the “Par-Q” questionnaire and sign an informed consent prior to participation in lessons. Once these requirements are met, the instructor delivers sixteen classes (twice weekly for eight weeks) for approximately one hour. Instructors use a progression chart to help participants increase repetition and resistance. Classes begin with a warm-up, followed by eight exercises completed in a specific order, and end with cool-down. During this time, instructors teach a weekly nutrition lesson and encourage recipe preparation at home. If funding exists, instructors can provide a recipe demonstration.

Intervention Materials

The available intervention materials include:
- Full Program Protocol
- Nutrition Lesson Guide
- Nutrition Lesson Handouts
- Recipes
- Fitness Assessment Instructions
- Instructor's Warm-Up/Cool-Down Guide
- Instructor’s Exercise Guide
- Class Structure Outline
- Participant Exercise Guide
- Activities for Daily Living
- Post Course Newsletters
- Marketing forms
- Enrollment forms
- Fitness Assessment Results Pre and Post Comparison
- Fitness Assessment Performance

Intervention Costs

An implementing organization or agency must sign a license agreement to have access to the program protocol, evaluation and supporting materials. Implementing organization and agencies will need to purchase their own weights, scarves, and storage containers for certified instructors. Digital curriculum materials are included in the license cost. Printed copies are provided upon request at cost of printing.

Evidence Summary
A combination of pre/post health behavior data and post program surveys were collected immediately and three months post program. These data, both quantitative and qualitative, were used by an evaluation team to evaluate, modify, and improve SSSH, alongside feedback from other states who have adopted SSSH. The team also conducted a randomized control trial (RCT) to better understand effectiveness of SSSH, including a quantitative phase to track physiologic change and a follow-up qualitative phase to explore perceptions of the impact on PA and changes in behaviors and attitudes. The trial indicated that participation in eight weeks of the SSSH resistance training program significantly improves lower body strength/coordination, dynamic balance, sleep quality, and engagement in auxiliary PA to a greater extent than an exercise volume matched walking group. These positive adaptations suggest that participation in the SSSH program reduces the risk for falls and can improve quality of life in previously sedentary older adults. Furthermore, the results from participant pre/post surveys and pre/post assessments generate an annual impact report that outlines program outcomes, behavior changes made, and participant feedback testimonials. Multiple research studies have been conducted to support the effectiveness of the SSSH intervention, resulting in peer-reviewed publications and research posters that have been presented at various conferences on the benefits and outcomes of the program. Largely in part of these evidentiary findings, five other states have adopted SSSH and are implementing the program to SNAP-eligible audiences. The peer-reviewed literature can be found below:


The unintended benefits of the intervention include:
- Social engagement and social interaction (for many participants, attending class is the only social interaction they have each week)
- Improvements in social activity participation
- Improvements in quality of sleep (which has a profound effect on overall health and results in an increased quality of life)

The challenges include:
- Personal participant modifications for program exercises can be a challenge for instructors without an exercise background, but the MU state team provides exercise expertise to overcome these challenges.

**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.

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<th>Readiness and Capacity – Short Term (ST)</th>
<th>Changes – Medium Term (MT)</th>
<th>Effectiveness and Maintenance – Long Term (LT)</th>
<th>Population Results (R)</th>
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<tbody>
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<td>Individual</td>
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<td>MT1, MT3</td>
<td>LT1, LT3</td>
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<td>Environmental Settings</td>
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<td>Sectors of Influence</td>
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**Evaluation Materials**

Participant evaluation materials include:
- Participant pre/post surveys
- PA assessments

Process evaluation materials include:
- Instructor self-evaluation tool
- Fidelity checks performed by SSSH state leadership

Process evaluation also occurs during bi-annual Zoom instructor updates where instructors are given time to share successes, challenges, and suggestions for improvement.

**Additional Information**

**Website:** [The SSSH website](#) includes an overview and benefits of the program, frequently asked questions, and locations of the nearest SSSH program. **Contact Person(s):** Dr. Stephen Ball (573) 882-2334 ballsd@missouri.edu