

Study Protocol to Test REBIL: An Intervention to Increase Participation for People Aging with Long-Term Physical Disabilities

Research has shown that people aging with long-term physical disabilities are at an increased risk of falls, fall-related injuries, and reduced participation in the activities that they need and want to do. However, there are no programs to support their participation in these everyday activities. Therefore, we developed an intervention to promote participation in home and community activities and to prevent falls for people aging with long-term physical disabilities: Removing Environmental Barriers to Independent Living (REBIL). Here, we describe REBIL and a proposed study to test its feasibility and efficacy.

About REBIL

REBIL is an evidence-based program to promote participation in home and community activities for people aging with long-term physical disabilities. It was developed using two evidence-based programs—COMPASS, a program to support activity participation for people returning home after stroke, and HARP, a home hazard removal program to reduce falls—as well as key informant interviews and focus groups with people aging with disabilities and service providers, data from our 3-year study of people aging with disabilities, and input from a network of community-based organizations.

REBIL is provided by an occupational therapist (OT) in the participant’s home. The program includes five sessions that take place over 8 weeks. During the sessions, the participant describes activities that they have difficulty with. Next, the OT and the participant pinpoint what environmental barriers are making the activity difficult, as well as hazards that could pose a fall risk. The participant and the OT then work together to find solutions to remove the participation barriers and fall hazards. Finally, the participant practices using new techniques or equipment in front of the OT.

Step	Example
1. Identify difficult activities	A participant has trouble getting up and down the steps to her front porch, which limits her ability to do errands, visit friends and family, and do other activities outside of her home.
2. Identify participation barriers and fall hazards	The railing on the porch steps is loose and wobbly. In addition to making it difficult for the participant to use the steps, this is also a fall hazard.
3. Find a solution	The participant and the OT decide to have a new, sturdy railing installed so the participant has something stable to hold onto when she goes into and out of the house.
4. Active Practice	The participant practices leaving and coming back home, using the new railing for support as she walks down and back up the front steps.

The Study

We are testing REBIL in a group of people who are between the ages of 45 and 65, have had a physical disability for at least 5 years, and have trouble with two or more daily activities.

All participants will have an initial assessment in their homes with an OT. This study is a randomized waitlist controlled trial, meaning that after the first in-home assessment, participants will be divided into two groups: the REBIL group and the control group. The REBIL group will receive the REBIL program, and the control group will be interviewed about their participation, environment, and physical activity by a study team member. After 6 months, members of the control group will have the opportunity to take part in the REBIL program.

We will look at the study data to see whether REBIL is acceptable to participants and a feasible program for improving participation for people aging with disabilities. We will see what effect REBIL has on (1) home and community participation and (2) fall rates, as well as whether participants stick to the program, how appropriate the timeline and number of sessions are, and how much it costs to provide REBIL.

Conclusion

REBIL is a program to support safe participation at home and in the community for people aging with long-term physical disabilities. This study will determine whether REBIL is acceptable to participants and effective at improving their participation and reducing falls.

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