

Summary

- Age related hearing loss often has harmful effects on mental, social, and physical health.
- New Brunswick (NB) has a high number of older adults who have low income, which can cause barriers to obtaining hearing care.
- The project is set to carry out a community-based and equity-focused hearing health program.
- The project was carried out in Saint John, NB starting with a hearing test, hearing loss education, and a choice between two amplification devices.
- The 124 participants were over 60, 56.6% were women, 91.9% were anglophone, had mild to moderate hearing loss, and did not already use hearing aids.
- Data showed improvements in communication and social participation for participants.

HSPF Focus Area

Using community approaches to reduce health inequalities.

Project Start & End Date

December 19, 2019 – December 31, 2022

Organization/Agency

Loch Lomond Villa, Inc.

Location

Saint John, New Brunswick

Principal Investigator(s)

[Marilyn Reed](#)

Indicator	Impact / Outcome / Result	Quote
Communication ability, social interaction, and quality of life.	Improvements in communication were reported by 80% of participants, as well as increased social inclusion, and listening self-efficacy. 96% reported high levels of satisfaction with the project.	“Using the program as a bridge with my family for them to realize how I would not be able to hear them in certain situations. The hearing test, the device, and the social connections I made with study staff was the best part”.
Measure communication ability, social interaction, and quality of life for participants with amplification devices	At 3 months, participants who received amplification devices and education on effective communication strategies showed - improvement (p-value= <.001) in communication abilities in various situations as measured by the <i>Hearing Handicap Inventory for the Elderly - Screening</i> , a significant increase in the total social support scale (p-value= <.001) as shown on the <i>Duke Social Support Index</i> and enhanced self-efficacy after the intervention. The measures for loneliness and quality of life did not show significant change and may have been impacted by the Covid-19 pandemic. In total, 80% of participants reported having improvements in their communication goals.	<p>“The device has given me more confidence, and I don't worry about my hearing as much. I can hear in groups; I don't ask people to repeat”.</p> <p>“Everything is inter-related, and the best part was knowing and being aware of what I can do to improve my hearing. It's not just one part, it's what you do with everything that you learnt and received”.</p>
Return on Investment (ROI)	The cost per older adult is about \$1,182.68, without financing, for significant improvements in communication and social supports in 3 months time.	

Methods and Comparison

NB HEARS consisted of a hearing test, baseline assessment, intervention in which education and a choice between two amplification devices was provided with a follow up assessment at 3 months. The project team used the Hearing Handicap Inventory for Elderly-Screening (HHIE-S), Duke Social Support Index (DSSI), Revised UCLA (University of California, Los Angeles) Loneliness Scale, Patient Health Questionnaire (PHQ-9) and adapted Listening Self-Efficacy Questionnaire (LSEQ), to measure communication improvements, increase in social supports, decreases in loneliness, depression, and better sleep. Participants also identified communication goals that were subsequently tracked in the study.

Conclusions and Lessons Learned

- Participants experienced improvements in communication, social participation, and communication with their partners.
- Participants learned strategies for improved communication when they have hearing loss and how to use an amplification device effectively.
- The program identified hearing loss in participants who were unaware of it or had not sought or received treatment and provided them with education and an amplification device.
- Amplification devices were a supportive technology that allowed participants to hear better, communicate better and become more socially involved.

Recommendations

- Participants suggested more in-person or one-on-one sessions; others asked for more check-ins or group sessions, and to have sessions where participants can share experiences. They also suggested having refresher courses.
- Volunteers should be trained to help those with hearing problems with how to use the amplification device.
- Include a small fee for the amplification device so that participants do not feel that the device has a lesser quality.
- A large number of the participants would have preferred a choice among many different devices or to have modifications to certain devices – make these options available.

Next Steps

- Loch Lomond Villa was interviewed by the Rothesay Hive explaining the program and the results with older adults in the community.
- While the research team has not yet been successful in securing additional funding to scale up or sustain the program, they continue to work towards this. Loch Lomond Villa has been awarded funds to establish a Nursing Home Without Walls program where they will be able to integrate some aspects of HEARS.
- The project team has submitted their work to the International Journal of Audiology for publication and continues to present the project results at academic conferences and to health policy makers.

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