

Pilot study to develop telehealth tinnitus management for persons with and without traumatic brain injury




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- Aim
 - Pilot study to evaluate feasibility and potential efficacy of telehealth Progressive Tinnitus Management (PTM) for veterans with and without traumatic brain injury (TBI).
- Relevance
 - Tinnitus affects 10%–15% of adults; it can be problematic and require lifelong management.
 - Many people with TBI also have tinnitus.

- PTM
 - Education and counseling to help patients self-manage their reactions to tinnitus.
 - For pilot, we adapted PTM by delivering it via telephone and adding cognitive-behavioral therapy.
- Participants
 - Veterans with clinically significant tinnitus and:
 - Probable symptomatic mild TBI ($n = 15$).
 - Moderate to severe TBI ($n = 9$).
 - No symptomatic TBI ($n = 12$).
 - Received 6 mo of telephone counseling (6 sessions total).
 - Completed questionnaires at baseline, 12 wk, and 24 wk.

Sound Plan Worksheet




1. Write down one bothersome tinnitus situation _____

2. Check one or more of the three ways to use sound to manage the situation	3. Write down the sounds that you will try	4. Write down the devices you will use	5. Use your sound plan over the next week. How helpful was each sound after using it for 1 week?	6. Comments When you find something that works well (or not so well) please comment. You do not need to wait 1 week to write your comments.																				
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Example of PTM counseling by audiologist. “Sound Plan Worksheet” helps veteran develop individualized plan to manage reactions to tinnitus.

Changing Thoughts and Feelings Worksheet

1. From the Tinnitus Problem Checklist, write down one bothersome tinnitus situation _____

2. Check one or more of the three exercises you will practice	3. Write down how you feel before you try the exercise	4. Write down how you feel after the exercise	5. Use your plan plan over the next week. How helpful was each exercise?	6. Comments When you find something that works well (or not so well) please comment. You do not need to wait 1 week to write your comments.																				
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Example of PTM counseling by psychologist. “Changing Thoughts and Feelings Worksheet” incorporates cognitive and behavioral coping skills.

Results

- All groups showed trends reflecting improvement in self-perceived functional limitations due to tinnitus.
- These data, and experiences gained from conducting the study, have been used to design randomized clinical trial to more definitively evaluate efficacy of this telehealth methodology.

Conclusion

- Our pilot study showed positive results of conducting PTM via telephone.
- PTM as home-based telehealth service has potential to provide tinnitus services to Veterans with and without TBI for relatively small cost and with minimal effect on individual VA hospitals.
- After follow-up clinical trial, we will fully develop the tinnitus telehealth program and document organizational requirements and patient outcomes.