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# Development of an educational hearing technology pamphlet based upon assessment of assisted living facility employees

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**DEVELOPMENT OF AN EDUCATIONAL HEARING TECHNOLOGY  
PAMPHLET BASED UPON ASSESSMENT OF ASSISTED LIVING  
FACILITY EMPLOYEES**

**by**

**Katherine Suzanne Bergman**

**A Capstone Project  
submitted in partial fulfillment of the  
requirements for the degree of:**

**Doctor of Audiology**

**Washington University School of Medicine  
Program in Audiology and Communication Sciences**

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**Approved by:**

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Kristi Oeding, Au.D., Secondary Project Advisor**

***Abstract: By assessing assisted living facility employees through a pre-test and post-test, a hearing technology pamphlet was created to help improve employee knowledge and improve care of those individuals that utilize hearing technology in assisted living facilities.***

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2017

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## INTRODUCTION

Numerous studies have established that hearing loss is a common occurrence in older adults (Bahng & Lee, 2015; Roth, 2015). The number of older adults living in assisted living facilities has increased as the population ages and modern medicine has increased the average length of life (White & Cadiz, 2013~~2~~). Due to the general age of the population, there is a high prevalence of presbycusis among individuals living in assisted living facilities (Pryce & Goberman-Hill, 2011). Previous research has found that 95% of elderly individuals living in residential care were hearing impaired (Stumer, Hickson, & Worrall, 1996). This makes the topic of hearing especially relevant for individuals in these facilities and the people working as caregivers.

The use of hearing technology in individuals who live in assisted living facilities is also common, but significantly underused with one study reporting 11.5-16.8% use (Cohen-Mansfield & Taylor, 2004). Improved hearing ability has been shown to increase residents' quality of life (Tsuruoka et al., 2001). Multiple studies have looked at hearing aid use in assisted living facilities and nursing homes and at the condition of hearing aids in these facilities (Cohen-Mansfield & Taylor, 2004; Cohen-Mansfield & Infeld, 2006). Researchers have discovered that hearing aids in these facilities are often non-functioning or in poor condition. Some common problems with the hearing aids included a dead or weak battery, clogged vent, clogged receiver, and malfunctioning controls. The researchers noted that the majority of problems with the hearing aids were easily detectible and easily correctable (Thibodeau & Schmitt, 1988). Hearing impairment is shown to affect the quality of life in these individuals, making the necessity for properly functioning and well maintained hearing technology a vitally important aspect of residents' well-being (Pryce & Goberman-Hill, 2011; Tsuruoka et al., 2001).

Often residents at assisted living facilities lack some capacity to be able to care for the instruments themselves and require assistance. Older individuals often lack the dexterity necessary for routine maintenance on hearing aids, such as insertion, removal, and adjusting controls (Flynn, Kennedy, Johns, & Stanbridge, 2002). One study found that 86% of nursing home residents noted that they needed help taking care of hearing aids (Cohen-Mansfield & Taylor, 2004). Individuals residing in assisted living facilities hope to gain, as the name implies, assistance, which is not always possible when the employees lack knowledge and training.

The audiologist and/or family members of assisted living facility residents frequently rely upon the employees to care for and maintain hearing technology on a daily basis. Employees at these facilities are often expected to do tasks that they have not been trained sufficiently to perform. In fact, the Institute of Medicine has detailed that the training for these employees is insufficient for providing quality care. The Institute also notes that state and federal governments should increase the training standards for employees in assisted living facilities as well as all areas of direct care (Institute of Medicine, 2008). Previous studies have shown that training of assisted living facility and nursing home employees is very difficult due to the high turnover rate (41-66% annually), lack of training, lack of time, and lack of funding available (Trinkoff et al., 2013). In fact, turnover costs employers 4.1 billion dollars annually (Institute of Medicine, 2008). Maas and Buckwalter (2006) also found that better training in assisted living facilities was associated with higher job satisfaction and job retention as well as providing more quality care to residents.

There are very few training programs in place for assisted living facility employees regarding hearing technology, and it would be beneficial to implement training to increase the competency of employees working with this technology. Due to lack of time and financial



resources, the high turnover rate, and lack of training available, an alternative training method for disseminating information on hearing technology would be beneficial for residents and employees at assisted living facilities. Previous studies have shown the usefulness of pamphlets in relaying knowledge, and a pamphlet may be a viable alternative that helps alleviate the current issues with training employees at assisted living facilities (Bhugra & Hicks, 2004; Shaikh, Hussain, Rahn, & Desilets, 2010). A pamphlet specifically focused on troubleshooting and basic hearing technology could be an effective way to disseminate this knowledge to employees.

The goal of this study was to develop an effective hearing technology pamphlet based upon answers to questions on a pre-test and then test the effectiveness of the pamphlet by allowing employees to answer the questions on a post-test with the assistance of the developed pamphlet. The distribution of an effective hearing technology and troubleshooting pamphlet could help facilitate the acquisition of this information at a low cost and with very little time and effort for the employers and employees to increase the quality of life for residents at assisted living facilities.

## **METHODS**

### *Participants*

Participants included assisted living facility employees over the age of 18 that work directly with individuals that utilize hearing technology. The employees were recruited utilizing fliers and email recruitment approved by the Washington University Human Research Protection Office (HRPO). Participants were recruited from 5 assisted living facilities in the St. Louis

metropolitan area. 20 employees were recruited and completed the pre-test. 24 employees were recruited and completed the post-test approximately one month following the pre-test.

Demographic information, including job title/certification was collected, which is presented in Figures 1 and 2. Employees identified their tests with a number to maintain confidentiality. Due to high turnover rates, differing employee schedules, and employees forgetting their ID numbers for the post-test, different employee groups were used with some employees who took the pre- and post-test and some who took one or the other. No compensation was provided for participating in the study.

### *Procedures*

At their place of employment and at a communal table, employees took a pre-test approximately 15 minutes in length that assessed hearing aid technology and troubleshooting knowledge. The pre-test consisted of 21 questions, which may be seen in Appendix A. The pre-test included basic troubleshooting and hearing technology questions. The questions were chosen based upon previous research regarding common hearing technology problems and the clinical experience of the investigators (Thibodeau & Schmitt, 1988). A question regarding the desire for additional troubleshooting knowledge was added to obtain additional information.

A pamphlet was then created based upon the pre-test results utilizing the employee responses. Each question on the pre-test and post-test had the information required to answer it correctly on the pamphlet. Special attention was taken to those questions that were missed by more than 50% of employees. Additional information was added to the pamphlet based upon the

clinical experience of the investigators. A double-sided pamphlet was created and printed for employee use on the post-test (Appendix B).

At their place of employment and at a communal table, employees took a post-test approximately 15 minutes in length that assessed hearing aid technology and troubleshooting knowledge. The post-test basic troubleshooting and hearing technology questions identical to the pre-test. The post-test consisted of 21 questions, which may be seen in Appendix C. The question regarding the desire for additional troubleshooting knowledge was excluded from the post-test. An additional question was added to the post-test where the employees were given the option to provide their email address to be contacted with one email consisting of three questions about the effectiveness of the pamphlet in a practical setting. The email was sent one month following the post-test to the 13 participants who provided their email addresses.

## **RESULTS**

### *Pre-test*

Two questions asked what job and certification each employee held. The two responses were used to determine the role of the employee (Figure 1). The majority, 14 of the employees (70%), were level one medical assistants. Three (15%) were licensed practical nurses, one (5%) was a Certified Medical Technician, one (5%) had a Bachelor of Science degree, and one (5%) was an administrator.

When asked how often they work with hearing impaired individuals, 18 of the 20 employees (90%) noted that they worked with hearing impaired individuals often to daily (Figure 3). One employee (5%) stated that he or she rarely worked with individuals that utilize hearing technology, and one employee (5%) chose not to answer the question. The amount of hearing technology training noted by 18 of the 20 employees (90%) ranged from very little to none. Two of the employees (10%) chose not to answer (Figure 4). When asked how knowledgeable employees felt about hearing technology, seven of the employees (35%) noted that they did not feel knowledgeable or had very little knowledge of hearing technology (Figure 5). Eleven employees (55%) noted that they felt somewhat knowledgeable to having a good amount of knowledge of hearing technology, and two employees (10%) decided not to answer the question. When asked how often employees directly work with hearing technology devices, ten employees (50%) reported that they work with hearing technology devices often to daily, eight employees (40%) reported that they do not work with them often, and two employees (10%) chose not to answer the question (Figure 6).

Two open-ended questions regarding troubleshooting were added to see what type of troubleshooting strategies the employees were utilizing when a hearing aid stopped working. Each employee was asked to provide a troubleshooting strategy for both questions for a total of two responses per employee. If more than one response was provided, the first response on each troubleshooting question was taken as the response. Twenty-one of the 40 responses (52.5%) referred to changing or checking the battery, five (12.5%) referred to cleaning, six (15%) referred to turning the hearing aid on or up, two (5%) referred to calling the family, one (2.5%) stated that he or she did not know, 1 (2.5%) suggested to try the aid in the other ear, and four (10%) did not provide a second response (Figure 7).

The questions that had a correct and incorrect answer have their results for the pre-test detailed in Table 1. T-tests were completed for each question with a correct and incorrect answer to determine whether the differences between the pre-test and the post-test were significant. A p-value of  $< 0.05$  is considered significant for the purposes of this study. The group score of all data from the participants on the pre-test answered correctly was 46.25%.

### *Post-test*

Two questions asked what job and certification each employee held (Figure 2). The two responses were used to determine the role of the employee. The majority, 20 of the employees (83%), were level one medical assistants. Four of the employees (17%) were licensed practical nurses.

Twenty-one of the 24 employees (88%) noted that they worked with hearing impaired individuals often with most noting that they work with them on a daily basis (Figure 8). Two employees (8%) stated that they rarely worked with individuals that utilize hearing technology, and one employee (4%) stated he or she worked with those individuals some of the time. The amount of hearing technology training noted by 22 of the 24 employees (92%) ranged from very little to none (Figure 9). One employee (4%) noted he or she had enough training. One employee (4%) chose not to answer. Seven of the employees (29%) noted that they did not feel knowledgeable or had very little knowledge of hearing technology (Figure 10). Fourteen employees (58%) noted that they felt somewhat knowledgeable to having a good amount of knowledge of hearing technology, and three employees (13%) decided not to answer the question. When asked how often employees directly work with hearing technology devices, 12

employees (50%) reported that they work with hearing technology devices often to daily, nine employees (37%) reported that they do not often work with them, and three employees (13%) chose not to answer the question (Figure 11). The two questions regarding troubleshooting included 48 responses referring to possible troubleshooting strategies (Figure 12). If more than one response was provided on each of the two troubleshooting questions, the first response on each question was taken as the response. Thirty-seven responses (77%) referred to changing or checking the battery, 10 (21%) referred to cleaning, and one (2%) referred to ensuring the device is on.

Table 1 includes the results from the questions with correct and incorrect responses for the pre- and post-test. T-tests were completed for each question with a correct and incorrect answer to determine whether the differences between the pre-test and the post-test were significant. A p-value of  $< 0.05$  is considered significant for the purposes of this study. The group score of all data from the participants on the post-test was 81.94%. A t-test was conducted to compare the group scores, and the post-test scores were significantly improved by 35.69% with a p-value of  $< 0.001$ .

### *Follow-up*

Of the 13 employees who provided their email address, one employee responded. The one email response answered the three questions as follows (responses are italicized).

How often were you able to utilize practically either the pamphlet itself or the information provided in the pamphlet?

*Most of our residents are independent with their hearing aids so I did not have the opportunity to use the pamphlet.*

How helpful did you find the pamphlet on a scale of 1 to 10 with 10 being the most helpful?

*I would give the pamphlet a score of 9.*

Would you recommend this pamphlet to other assisted living facility or nursing home employees?

*I would recommend the pamphlet and think the information could be helpful especially in a nursing home setting where residents require more assistance.*

## **DISCUSSION**

The vast majority of the employees who took the pre-test and the post-test were level one medical assistants and also noted that they work with hearing impaired individuals often or daily, which illustrates the importance of this study. The employees are charged to assist these individuals who reside in the facility, but without proper training or knowledge, this task could be incredibly difficult.

The vast majority of employees (90% on the pre-test and 92% on the post-test) also noted that they received little to no training in the area of hearing technology despite working with hearing impaired individuals often. This information correlates with a previous study that has been conducted regarding the training of assisted living facility employees. This study examined what direct care workers believed would improve their jobs and many employees listed a desire

for training, with assisted living facility workers requesting increased training more often than nursing home workers (Kemper et al., 2008). The lack of training seems to be pervasive across many areas of care in assisted living facilities.

About half of the employees (55% on the pre-test and 58% on the post-test) felt as though they were somewhat knowledgeable in how to use and maintain hearing technology. Presumably they were able to gain some on the job training that has given them some skills in this area. As illustrated clearly by the percentage, there is room for improvement in making the employees feel more knowledgeable and skilled in the area of hearing technology. Half of the employees (50% on the pre-test and 50% on the post-test) also reported that they work with hearing technology devices daily. This illustrates how common working with these devices can be for employees at assisted living facilities and how more knowledge of hearing technology could directly impact their daily work.

The two open ended troubleshooting questions did not have a correct or incorrect answer, but the information was useful in examining strategies with which the employees were familiar. Overall participants reported more concrete and proactive approaches on the post-test following utilization of the pamphlet. These proactive approaches supersede less effective strategies such as calling family, for example. This illustrates that the pamphlet was effective in relaying appropriate troubleshooting strategies to employees.

Of the 12 questions with a correct and incorrect answer included on the pre-test and post-test, 11 questions were improved with seven significantly improved. For the five questions that were not significantly improved, two of the questions, one regarding broken tubing and another on how to see if a hearing aid is working had very high scores on the pre-test (95% and 85%, respectively), which did not allow for much room for improvement on the post-test. Three of the



questions involving whether hearing aids were inserted correctly, whether a hearing aid was not turned on, and whether or not items were hearing aids may have benefitted from more explicit information on the pamphlet or real life examples rather than the pictures on the tests. The question regarding whether or not an item was a hearing aid was the only question that was not improved on the post-test. There was also significant improvement in terms of scores on the tests as a whole. The results reveal significant improvement between the pre-test and post-test scores indicating that the pamphlet improved the ability for employees to answer basic troubleshooting and hearing technology questions. This would indicate, for the purposes of this study, that the pamphlet is effective in relaying information to the employees. This is a promising result for the future of this pamphlet in its use and in proving its usefulness when proper training is not possible.

The email response received one month following the post-test indicated that the participant recommended the pamphlet and thought it could be helpful especially in a nursing home where residents require even more help. The employee remarked that most of their residents at the assisted living facility are independent with their hearing aids, but as the literature shows, residents are not always aware that their hearing aids are malfunctioning (Thibodeau & Schmitt, 1988). The email response did give the pamphlet a nine out of ten rating in how helpful it was, which shows potential for the pamphlet in educating these employees.

One of the key constructs of assisted living is the ability to provide assistance, and training in the area of hearing technology through the use of an educational pamphlet could help (Wilson, 2007). The pamphlet could also be expanded and used by employees in nursing homes or even for family members of elderly hearing aid users. As the population continues to get older, more individuals are going to be utilizing hearing technology, and a pamphlet may be

helpful to reference when troubleshooting and working with hearing technology. This would decrease caregiver stress and provide better care to hearing impaired individuals (Walker & Harrington, 2013). Future research could include using a hearing technology and troubleshooting pamphlet and examining the effectiveness for employees in nursing homes rather than assisted living facilities or for persons and caregivers/family not in nursing homes. Investigators could even possibly compare a more traditional training protocol to a pamphlet to determine the effectiveness of each. Future research could also include updating the pamphlet as technology is constantly changing and improving.

There are numerous possibilities for use of this pamphlet and pamphlets as training tools. Education through the use of a pamphlet is relatively easy, inexpensive, and requires no special training. As illustrated by the results of this and previous studies, educational pamphlets may be a viable alternative to traditional training, and the pamphlet developed for this study is just the beginning in finding new ways to relay information to caregivers (Bhugra & Hicks, 2004; Shaikh et al., 2010).

### *Limitations*

There were several limitations of this study. First, the employees that took both the pre-test and post-test were unable to remember their ID numbers in the time between the pre-test and post-test, which prevented analysis within subjects. By not asking for any personal health information, there was no other way to link the pre-tests to specific post-tests. Not all of the employees were able to take both the pre-test and post-test due to varying employee schedules, lack of time in the workday, and high turnover. This illustrates one difficulty in conducting

studies in this population. Some employees also left certain questions blank, which may have been due to limited time in the workday or limited knowledge. The employees also were all in the St. Louis area and worked for the same company, and the results may not be generalizable to a larger geographic area or different facilities. Another limitation is that the study did not allow for effective follow-up after the distribution of the pamphlet. It would be useful to follow-up to determine how helpful the pamphlet is in a real-world setting.

## **CONCLUSIONS**

As illustrated by the results of this study, the use of an educational pamphlet in training employees at assisted living facilities can be effective in providing information about hearing technology without requiring a formal training session. The Institute of Medicine has suggested that alternative methods may need to be used to improve care, and the use of a pamphlet as a training method may be an effective alternative when formal training is not possible (2008).

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Table 1. Pre-test and post-test values

Question	Pre-test Correct	Pre-test Incorrect	Post-test Correct	Post-test Incorrect	p-value
*What color indicates the technology is for the left ear?	9 (45%)	11 (55%)	23 (95.8%)	1 (4.2%)	<0.001
*What color indicates the technology is for the right ear?	12 (60%)	8 (40%)	23 (95.8%)	1 (4.2%)	0.003
*Do different hearing aids use different batteries?	13 (65%)	7 (35%)	24 (100%)	0 (0%)	0.001
Of the following pictures below, which hearing aids are in correctly? Circle all that apply.	2 (10%)	18 (90%)	8 (33.3%)	16 (66.7%)	0.068
*By looking at the hearing aid below, can you guess what the problem might be? (Wax)	3 (15%)	17 (85%)	17 (70.8%)	7 (29.2%)	<0.001
What is likely wrong with the hearing aid below? (Not turned on)	12 (60%)	8 (40%)	19 (79.2%)	5 (20.8%)	0.173
What is likely wrong with the hearing aid below? (broken tube)	19 (95%)	1 (5%)	24 (100%)	0 (0%)	0.278
*How do you turn a hearing aid off?	10 (50%)	10 (50%)	24 (100%)	0 (0%)	<0.001
What is a quick way to see if a hearing aid is working?	17 (85%)	3 (15%)	23 (95.8%)	1 (4.2%)	0.223
Which of the following are hearing aids? Circle all that apply.	5 (25%)	15 (75%)	5 (20.8%)	19 (79.2%)	0.751
*What is the name of the device below? (Cochlear implant)	9 (45%)	11 (55%)	23 (95.8%)	1 (4.2%)	<0.001
*What is the name of the device below? (BAHA)	0 (0%)	20 (100%)	23 (95.8%)	1 (4.2%)	<0.001

\*=statistically significant

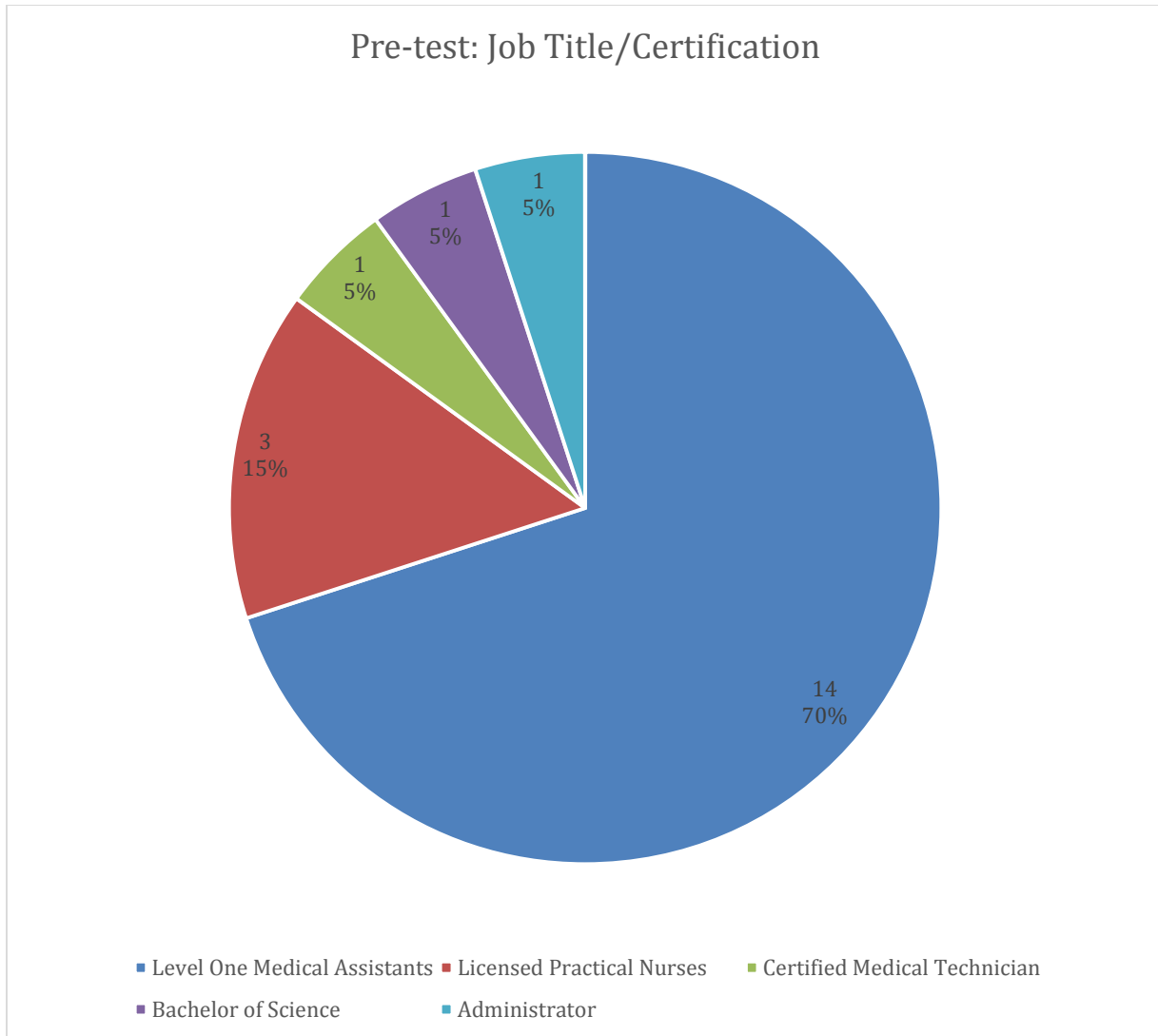


Figure 1. Pre-test: Job title/certification



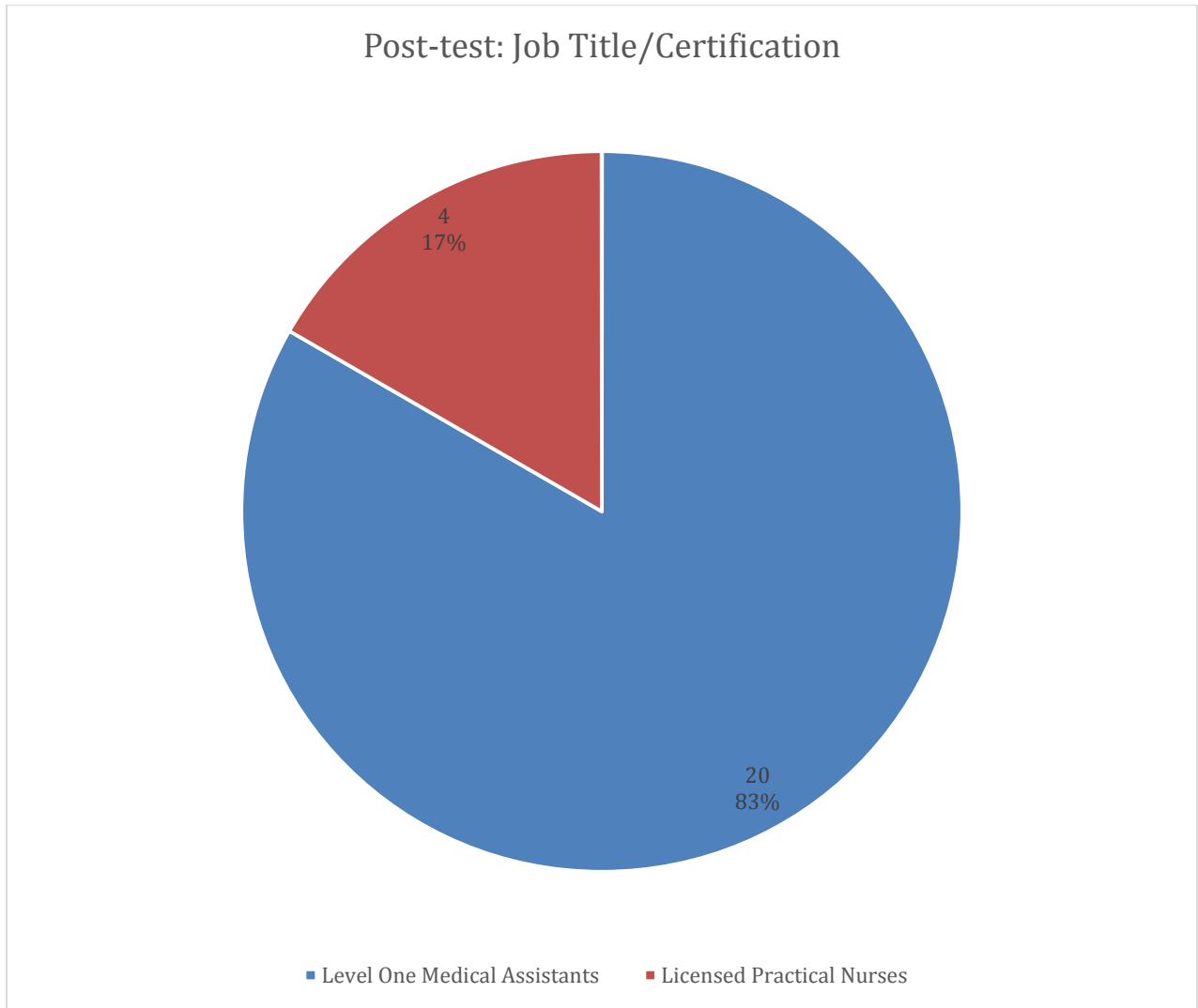


Figure 2. Post-test: Job title/certification

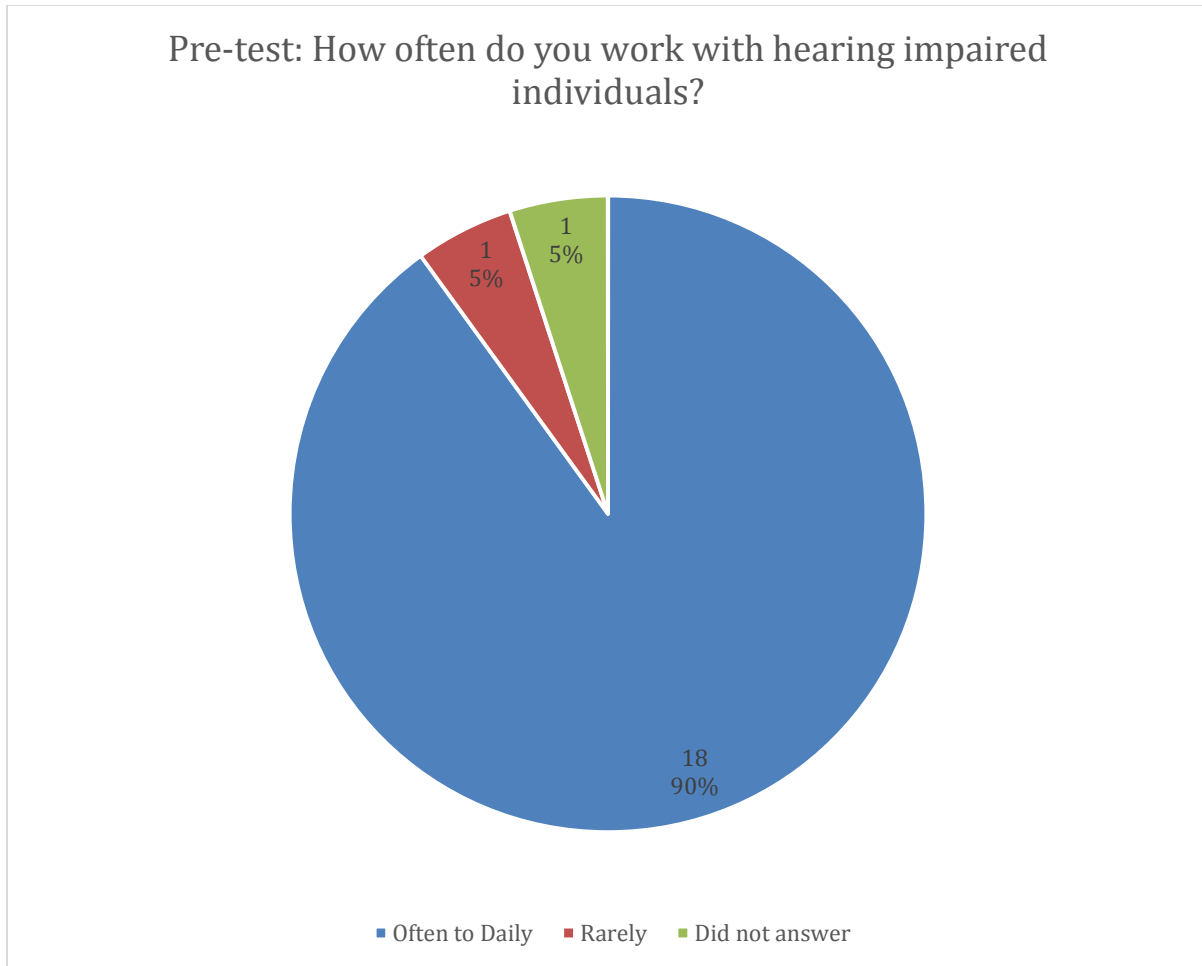


Figure 3. Pre-test: How often do you work with hearing impaired individuals?

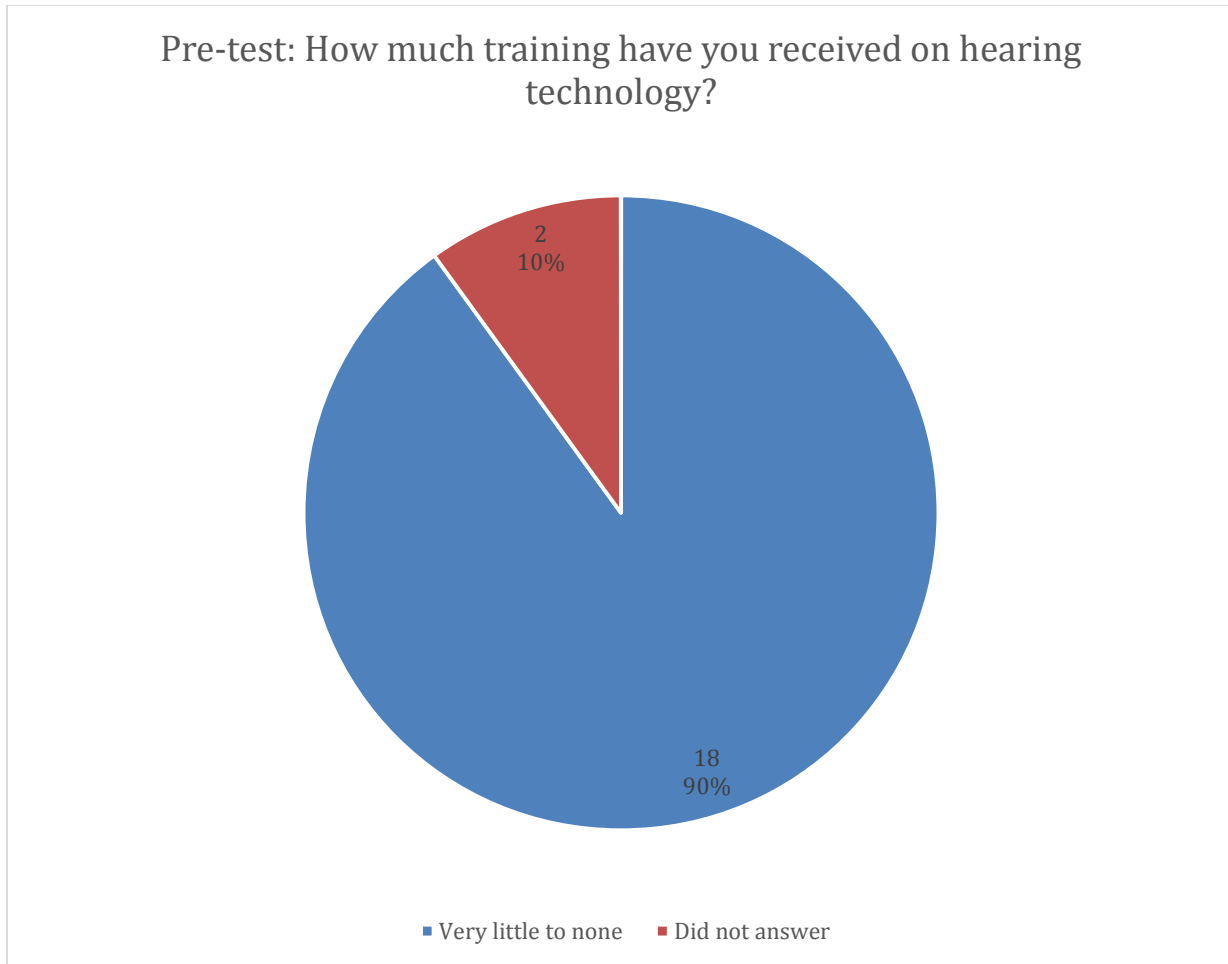


Figure 4. Pre-test: How much training have you received on hearing technology?

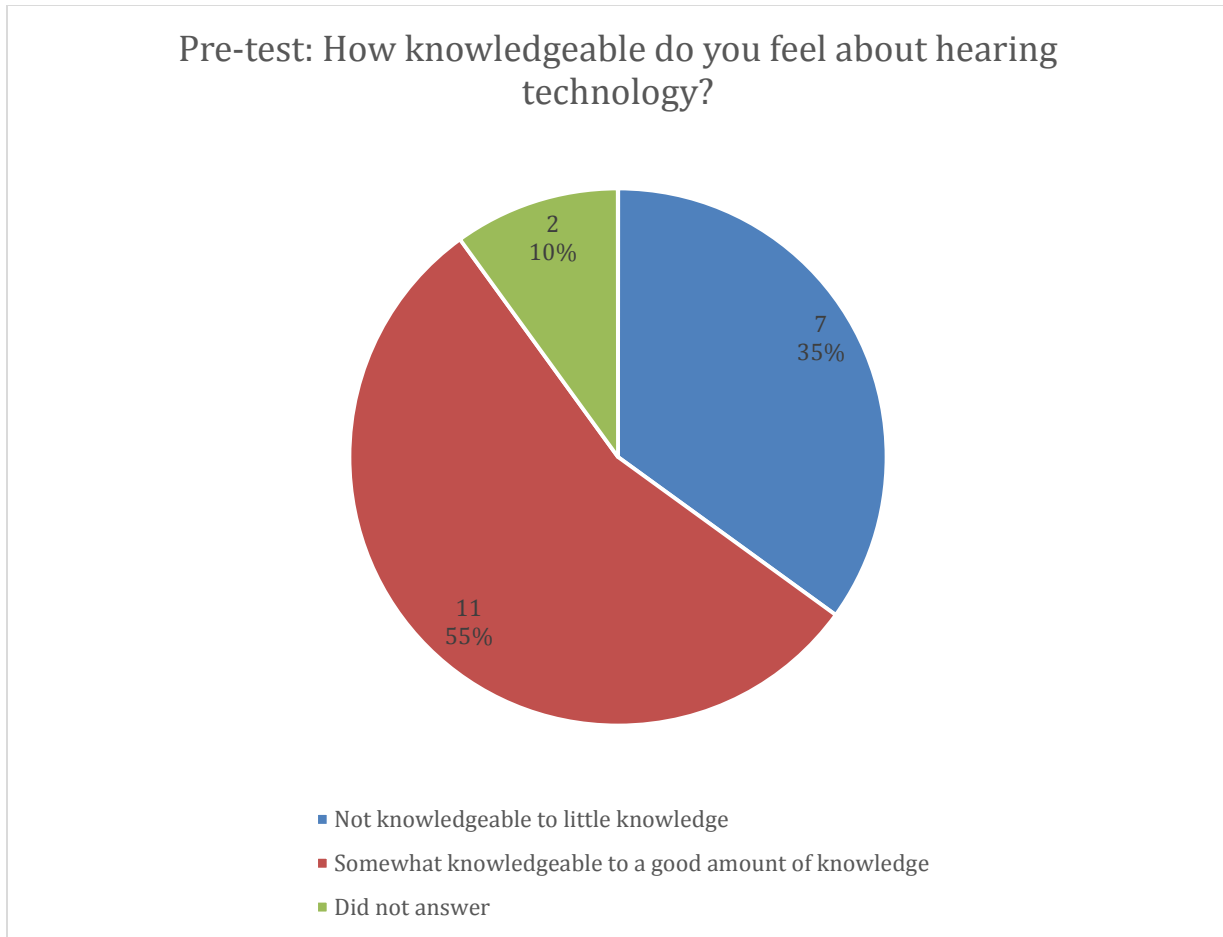


Figure 5. Pre-test: How knowledgeable do you feel about hearing technology?

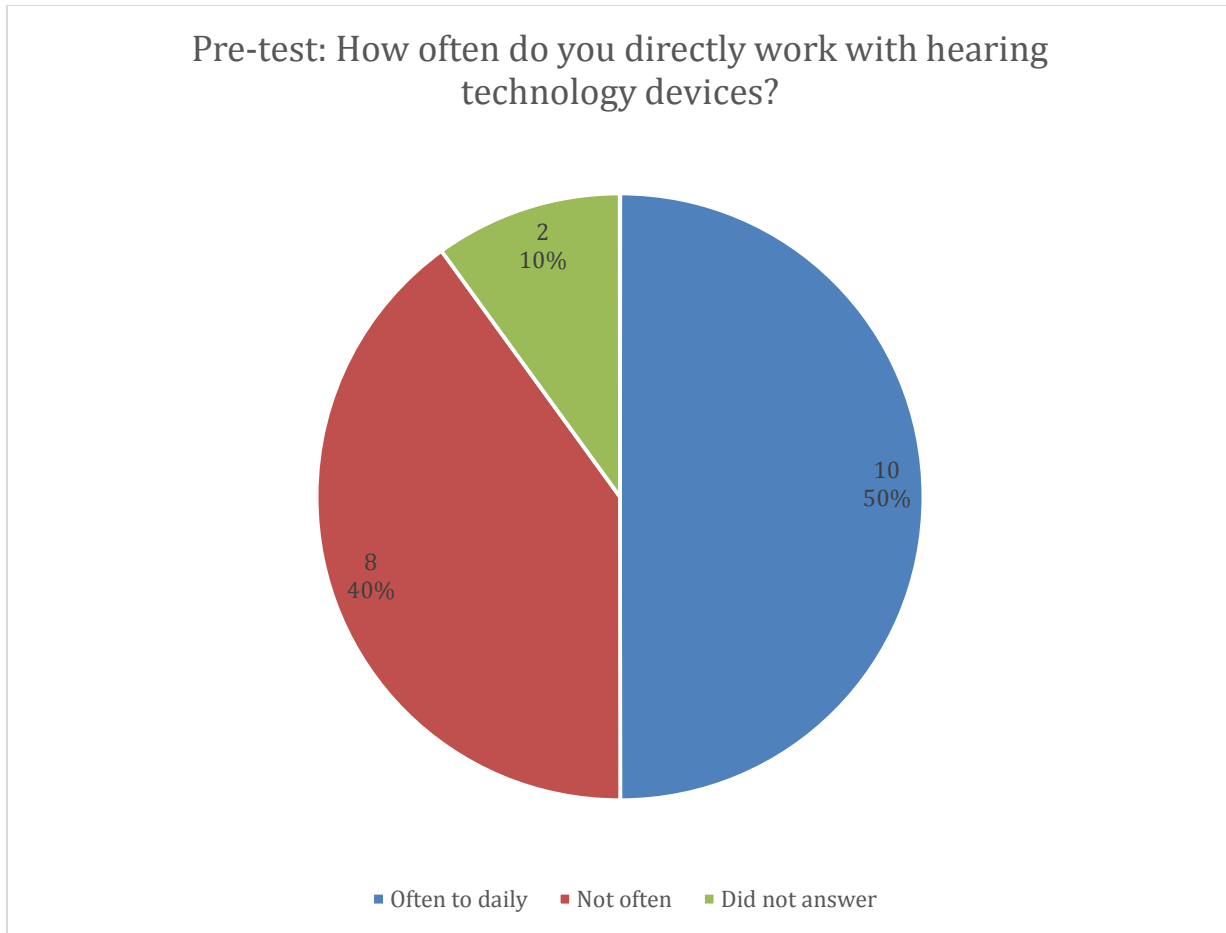


Figure 6. Pre-test: How often do you directly work with hearing technology devices?

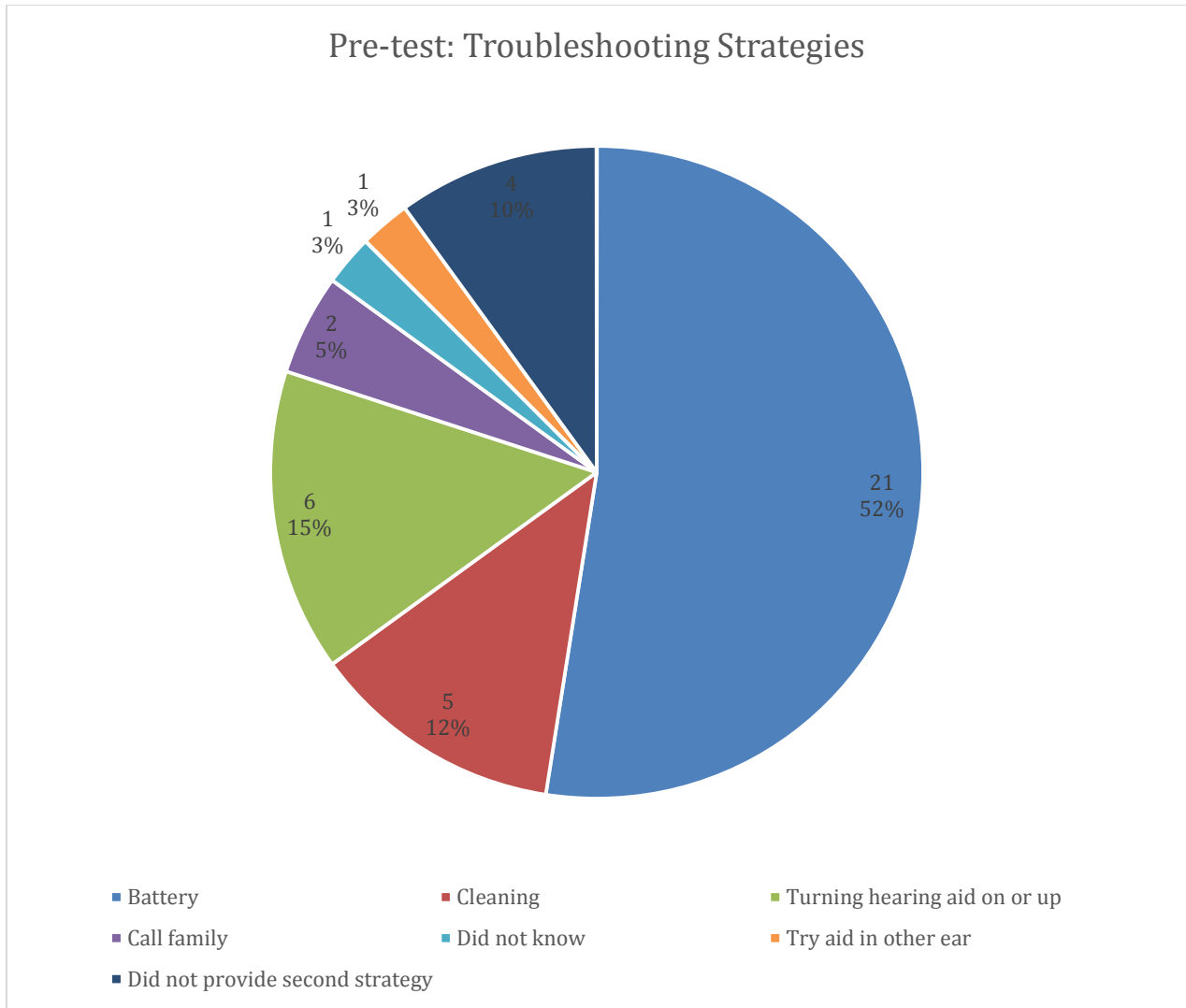


Figure 7. Pre-test: Troubleshooting strategies

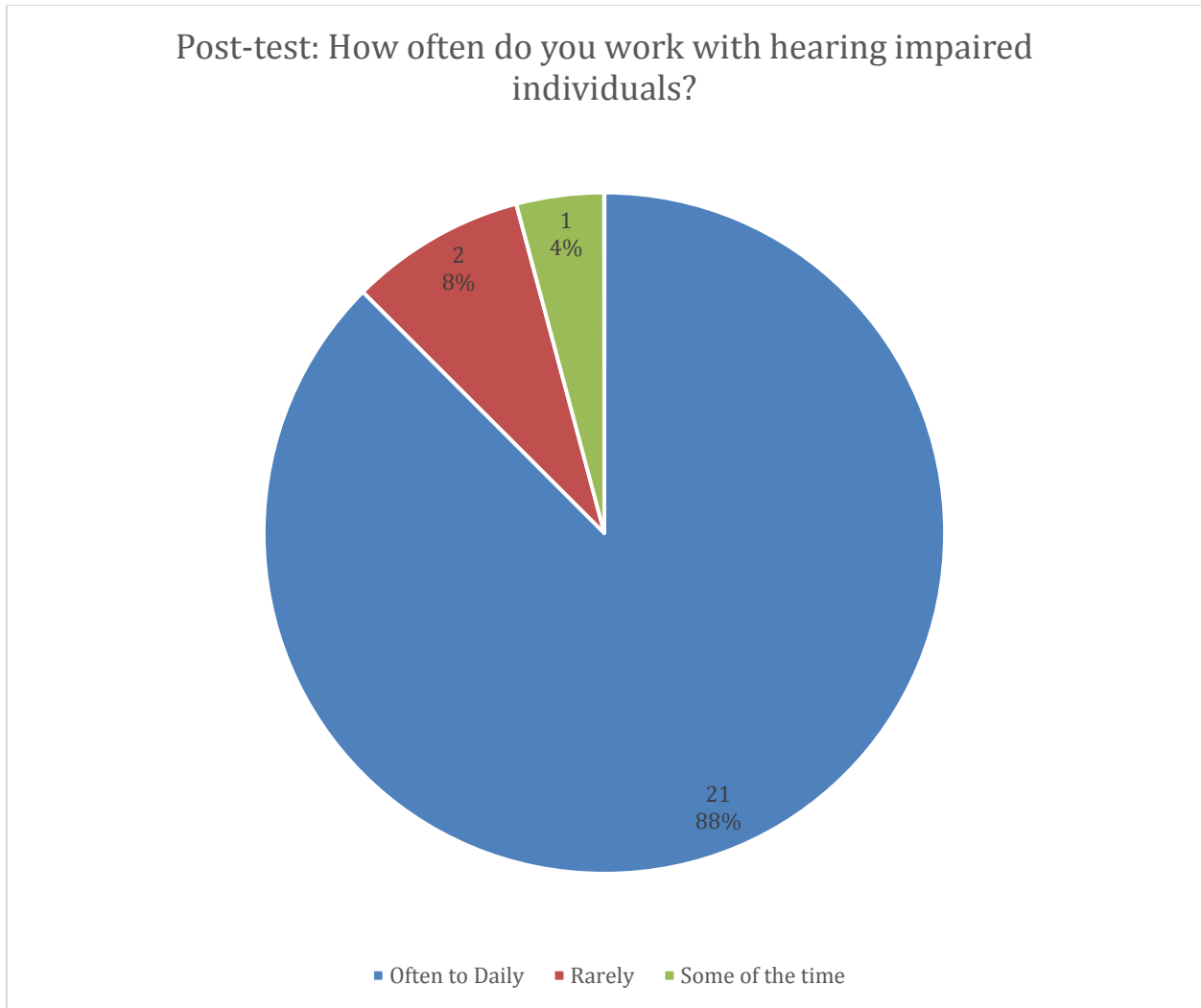


Figure 8. Post-test: How often do you work with hearing impaired individuals?

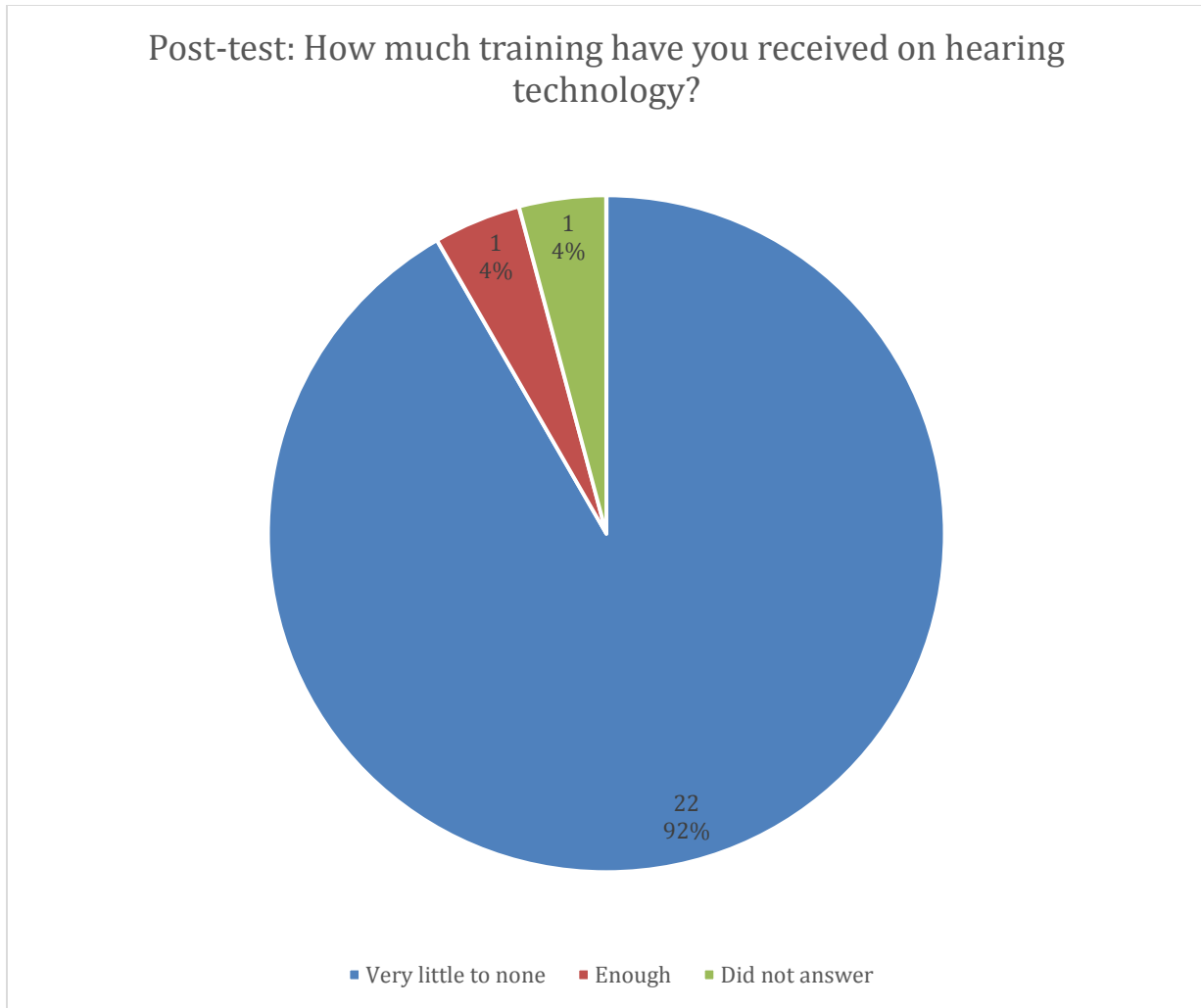


Figure 9. Post-test: How much training have you received on hearing technology?



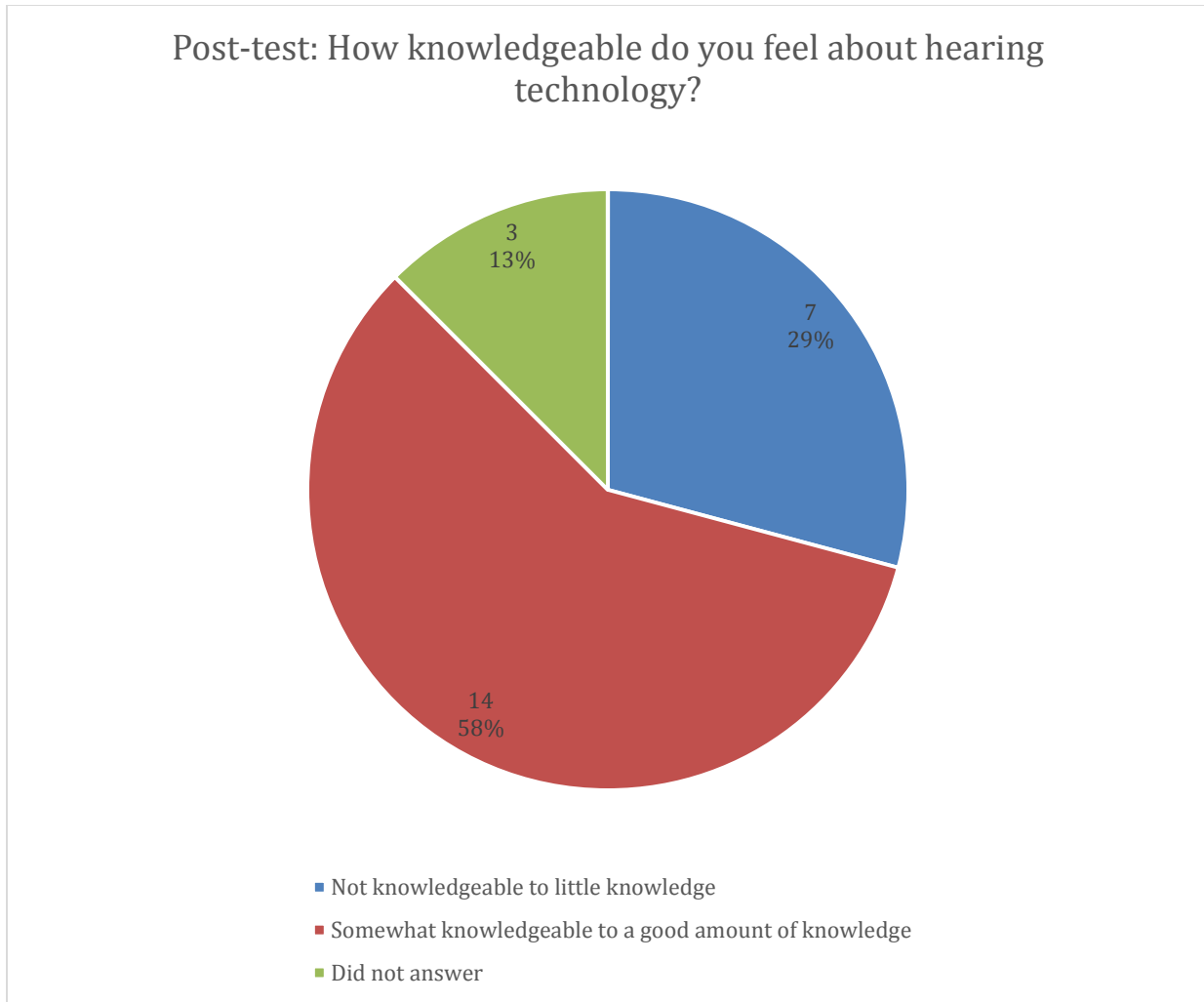


Figure 10. Post-test: How knowledgeable do you feel about hearing technology?

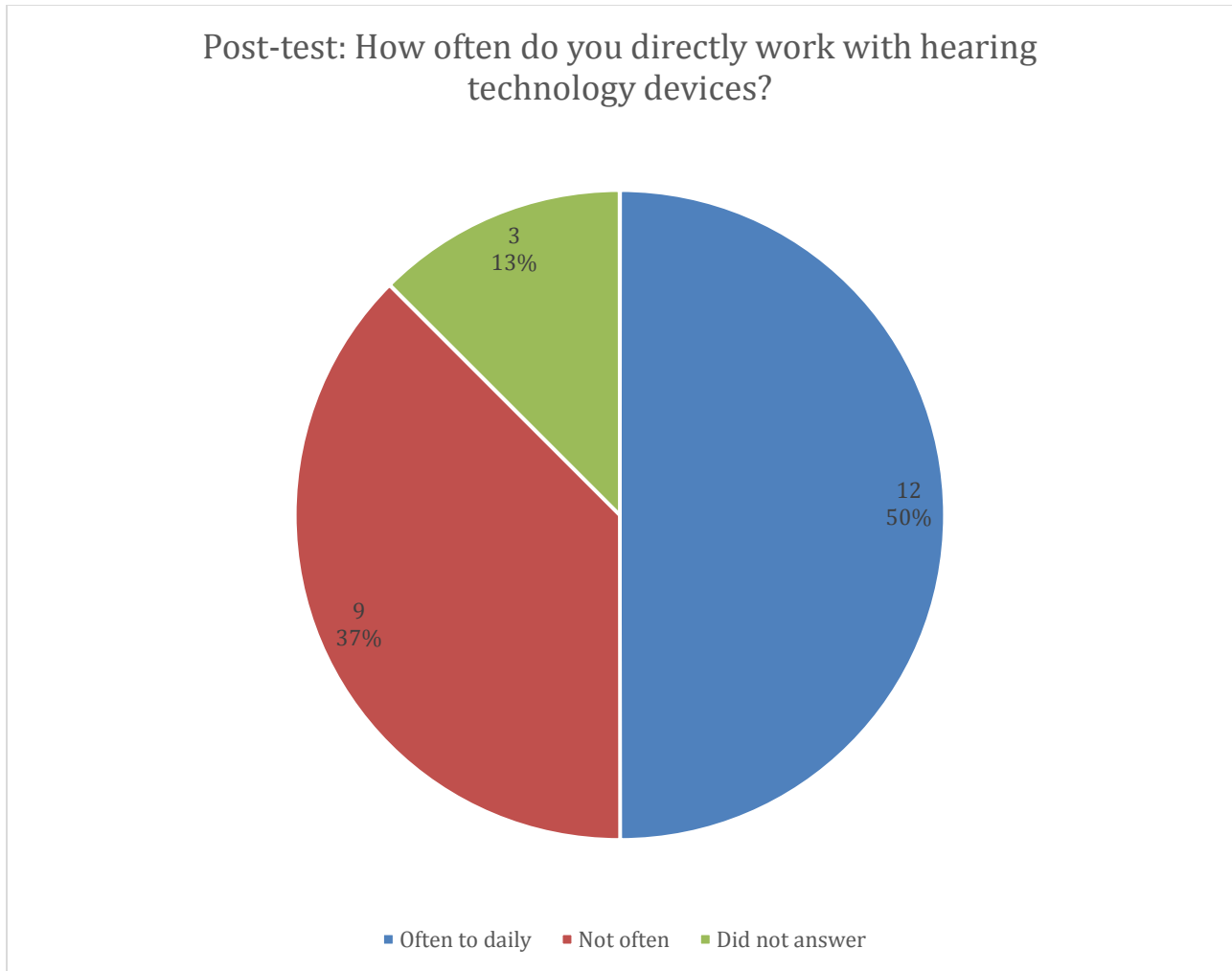


Figure 11. Post-test: How often do you directly work with hearing technology devices?

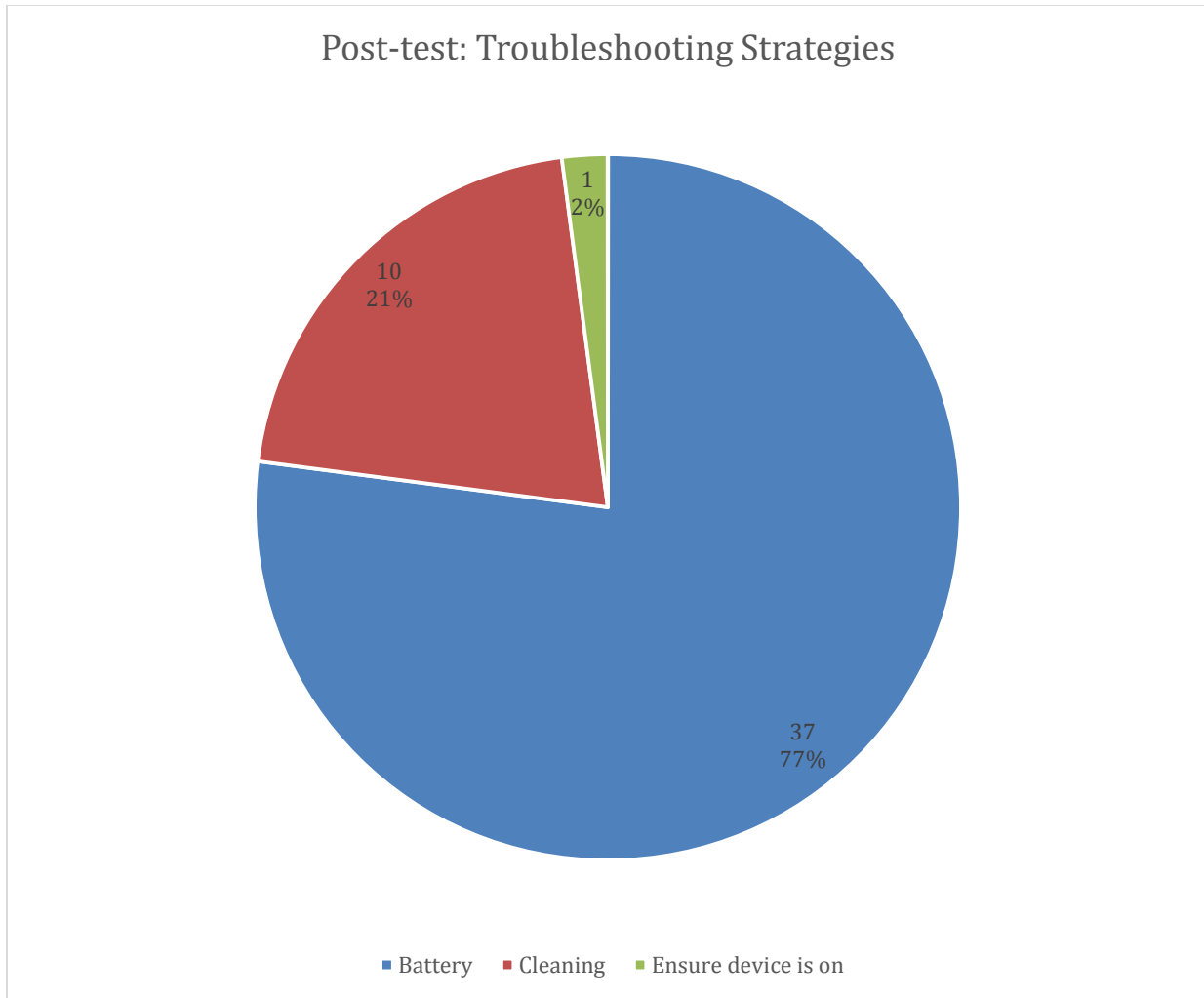


Figure 12. Post-test: Troubleshooting strategies

## APPENDIX A

ID Number \_\_\_\_\_

Pre-test

1. What is your job title? \_\_\_\_\_
2. What is your certification? \_\_\_\_\_
3. How often do you work with hearing impaired individuals?
4. How much training have you received on hearing technology?
5. How knowledgeable do you feel about hearing technology?
6. How often do you directly work with hearing technology devices?
7. What color indicates the technology is for the left ear?
  - a. Blue
  - b. Black
  - c. Red
  - d. Green
8. What color indicates the technology is for the right ear?
  - a. Blue
  - b. Black
  - c. Red
  - d. Green
9. Do different hearing aids use different batteries?
  - a. Yes
  - b. No
10. If a hearing aid stops working, what would you try first to troubleshoot?
11. If a hearing aid stops working, what would you try second to troubleshoot?

12. Of the following pictures below, which hearing aids are in correctly? Circle all that apply.



13. By looking at the hearing aid below, can you guess what the problem might be?

- a. Dead Battery
- b. Wax
- c. Not turned on



14. What is likely wrong with the hearing aid below?

- a. Dead Battery
- b. Wax
- c. Not turned on



15. What is likely wrong with the hearing aid below?

- a. Broken tube
- b. Wax
- c. Dead Battery



16. How do you turn a hearing aid off?

- a. Press the button on the back
- b. Open or crack the battery door
- c. Scroll the volume wheel down

17. What is a quick way to see if a hearing aid is working?

- a. Cup it in your hands to see if it squeals
- b. Get a new battery
- c. Press the button on the hearing aid

18. Which of the following are hearing aids? Circle all that apply.



19. What is the name of the device below? \_\_\_\_\_



20. What is the name of the device below? \_\_\_\_\_



21. Is there anything you would like to know more about in terms of hearing aids or troubleshooting?

## APPENDIX B

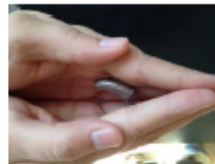


### Hearing Technology and Troubleshooting Guide

Washington University Program in Audiology and Communication Sciences

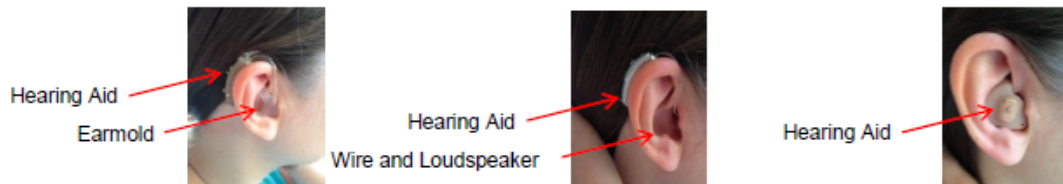
#### Quick Tips about Hearing Aids

- Hearing aids have specific colors that indicate which aid is for which ear. Red is for the right hearing aid, and blue is for the left hearing aid (found on outside of hearing aid or in the battery door).
- To turn on a hearing aid, close the battery door.
- To turn off a hearing aid, open or crack the battery door.
- To tell if a hearing aid is on or working, cup your hands around the device. It will squeal if it is on.



#### Styles of Hearing Technology

- ITE or "in-the-ear" technology fits snugly into the ear and can be various shapes and sizes depending on the ear and the power of the aid (below right).
- BTE or "behind-the-ear" technology fits with part of the aid in the ear and part of the aid behind it (pictured below middle and left).



#### Tips for Properly Inserting Hearing Aids

- Pull back on the ear to straighten the ear canal for easier insertion.
- For hearing aids behind the ear, the wire or tube should sit near the head rather than stick out.
- For hearing aids that sit only in the ear, earmolds, and a wire and loudspeaker, the hearing aid should sit securely in the ear. It is molded/picked for their ear and should fit in place like a puzzle piece.

#### Battery Information

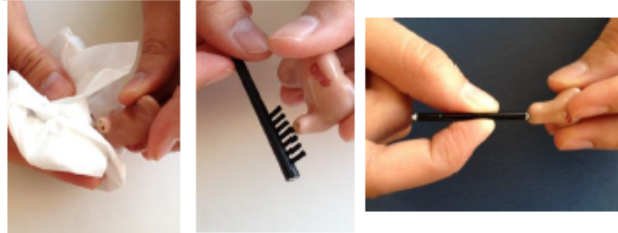
- Different hearing aids use different batteries, such as sizes 10, 312, 13, and 675.
- To replace a battery, remove the sticker from the top of the new battery and wait a full minute for the battery to charge. Batteries with 1.45 V are recommended.
- The battery goes in the battery door with the smooth side (sticker side) up. The door will not easily close with the battery in upside down.



Updated 11/2015

### Cleaning a Hearing Aid

- Wipe off wax or excess moisture with a tissue. To assist with cleaning, you may use hearing aid cleaning solution and tissues.
- Use a cleaning brush to brush off the microphones and remove any debris.
- If necessary, replace the wax guard. Take the replacement stick and put the blank end straight in and pull the white wax guard straight out. Turn the stick around and place the new wax guard straight in and pull the stick straight out.
- A drying kit may have been provided for the patient, and the aids may be placed in the kit to prevent moisture build-up.



### Troubleshooting a Non-Functioning Hearing Aid

- Check that the battery is properly inserted and that the battery door is closed all the way. An open battery door is illustrated to the right.
- Change the battery, as the battery may be dead.
- Check to see if wax is blocking the part that goes in the ear. If so, brush the wax away and/or replace the wax guard. A clean aid and an aid blocked with wax are illustrated on the right.
- If whistling is noted, the hearing aid may not be inserted properly. If it is inserted properly, the tube of the earmold may be broken or wax may be in the ear canal. Make an appointment with the audiologist if the latter is true.
- If troubleshooting measures are unsuccessful or if the aid is visibly broken, contact the audiologist/hearing technology provider.



### Surgically Inserted/Attached Hearing Technology

- The top right image is a cochlear implant. This hearing device uses a magnet to attach to the side of an individual's head and has a microphone that picks up sound and sends it electrically for the patient to hear.
- The bottom right image is a bone anchor hearing aid. This hearing device uses a magnet, headband, or post on the side of an individual's head and has a microphone that picks up sound and sends it through bone for the patient to hear.



Updated 11/2015



## APPENDIX C

ID Number \_\_\_\_\_

Post-test

1. What is your job title? \_\_\_\_\_
2. What is your certification? \_\_\_\_\_
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4. How much training have you received on hearing technology?
5. How knowledgeable do you feel about hearing technology?
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15. What is likely wrong with the hearing aid below?

- a. Broken tube
- b. Wax
- c. Dead Battery



16. How do you turn a hearing aid off?

- a. Press the button on the back
- b. Open or crack the battery door
- c. Scroll the volume wheel down

17. What is a quick way to see if a hearing aid is working?

- a. Cup it in your hands to see if it squeals
- b. Get a new battery
- c. Press the button on the hearing aid

18. Which of the following are hearing aids? Circle all that apply.



19. What is the name of the device below? \_\_\_\_\_



20. What is the name of the device below? \_\_\_\_\_



21. Would you be willing to provide your email address to be contacted with one email consisting of three questions about the effectiveness of this pamphlet in a practical setting in approximately 1 month's time?

Email: \_\_\_\_\_