



# LOW-INCOME HEARING HELP-SEEKERS' SELF-REPORTED PROFICIENCY WITH MOBILE DEVICES

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## INTRODUCTION

The average price of a hearing aid in the United States is about \$2,500. Neither Medicare nor Oklahoma Medicaid provides hearing aids for adults with low incomes which forces them to rely on "safety net" programs. The United Way Hearing Aid Bank (UWHAB) in the John W. Keys Speech and Hearing Clinic provides entry-level advanced digital technology (ADT) hearing aids at low cost to adults who are at least 1.7 times below the US Federal Poverty Level and live in one of seven central Oklahoma counties: Canadian, Cleveland, Kingfisher, Lincoln, Logan, Oklahoma, and Pottawatomie. The ADT hearing aids can be connected to patients' smartphones via an app for streaming, controlling settings, and remote programming from the audiologists' office via teleaudiology.

## PURPOSE

The purpose of the present study was to assess the self-reported proficiency with mobile devices of hearing help-seekers with low incomes.



## METHODS

The 28-item *Mobile Device Proficiency Questionnaire* (Roque & Boot, 2018) designed for this study was mailed to 106 patients who had obtained hearing aids through the UWHAB during the 4 years who had the ability to fill out a survey on their own. Each packet contained a \$10 Walmart gift card as an incentive for patients to complete the survey.

## RESULTS

Forty-two patients (M = 13; F = 29) with a mean age of 63.38 y (SD = 23) returned surveys for a response rate of 42% (42/[106-7 return to sender]).

Most took between 3 and 6 medications per day and had the following comorbidities: arthritis (50%; 21/42), hypertension (45%; 19/42), diabetes (43%; 18/42), ocular disorders/low vision (43%; 18/42), and hyperlipidemia (29%; 13/42). Patients reported living an average of 20 miles away from clinical services (M = 20.1; SD = 25) and 14% (6/42) did not have reliable transportation. Note that for all the data presented in each of the following categories, most (>50%) of the respondents reported whether they believed that they had these skills.

**Basic manipulation:** could turn devices on, charge batteries, navigate screen menus, use onscreen keyboarding, and adjust volume/brightness, but needed assistance or had never tried copying/pasting text, adjusting text size, and connecting to WiFi networks.

**Communication:** could open/send emails, view pictures in email, and post in social media, but needed assistance or had never tried instant and video messaging.

**Internet:** could use search engines to obtain information about health, hobbies/interests, and news, but needed assistance or had never tried making purchases, using bookmarks or the calendar to enter events, checking date/time of appointments, and setting up alerts.

**Entertainment:** could make purchases in Apple App/Google Play Stores, listen to music, and take pictures/video, but needed assistance or had never tried watching video/movies or reading a book.

**Privacy:** could change their passwords and erase pictures/video, but needed assistance or had never tried erasing Internet browsing or resetting the device to factory settings.

## DISCUSSION

The results of this study show that hearing help-seekers with low incomes would need instruction on using mobile devices to be able to leverage the benefits of pairing their ADT hearing aids with their smartphones or tablets. The fact that many of these respondents reported not having key skills simply because they had not tried them bodes well for how instruction from hearing healthcare providers may be all that is needed for success.

Case histories should include queries about mobile device proficiency so that auditory rehabilitation may include patient-centered instruction to help optimize patients' use of their hearing aids with smartphones/tablets.

The UWHAB provides entry-level ADT hearing aids that can be paired to a Smartphone. Our patients need basic skills with mobile devices to be able to leverage the advantages of the ADT hearing aids and to participate in teleaudiology. Therefore, assessment and management of mobile device skills must be addressed in hearing aid fittings and follow up appointments.

Limitations of this survey include self-selection bias, small sample size, patients from only one clinic, reliance on patients' self-reported rather than demonstrated abilities, and not asking about specific hearing aid/mobile device skills.

## CONCLUSIONS

Our personal experiences in other settings validate that these findings should generalize to most patients and other clinics and have implications for all allied health professionals who may be considering the use of telehealth with patients.

## REFERENCES

Roque NA, Boot, WR. A new tool for assessing mobile device proficiency in older adults: The Mobile Device Proficiency Questionnaire. *Appl Gerontol* 2018;37:131-156.