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## Nurse's Awareness of Hearing Impaired Patients' Communication Needs

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# **NURSE'S AWARENESS OF HEARING IMPAIRED PATIENTS' COMMUNICATION NEEDS**

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## **Abstract**

Anecdotal evidence suggests that most nursing school curricula do not provide formal training regarding the communication needs of hearing impaired patients. There is also a lack of continuing education opportunities related to hearing impaired patients and/or hearing devices to maintain nursing licensure. This project surveyed nurses' self-acknowledged skills and awareness of special communication needs associated with hearing impaired patients at a medical center who may or may not wear hearing aids or have cochlear implants. The survey (Appendix I) consisted of two demographic statements and ten knowledge/skill statements developed by the authors. Given the rapidly growing population of aging hearing impaired individuals and the associated increase in hospitalization of the aging population, along with the findings of the survey conducted in this project, there is sufficient evidence to consider the inclusion of the communication needs of the hearing impaired patient in the nursing curriculum. Specific findings and recommendations are discussed.

**Keywords:** Hearing Impaired, Nurse's Awareness, Communication

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## **Nurse's Awareness of Hearing Impaired Patients' Communication Needs**

### **INTRODUCTION**

Hearing loss is one of the most prevalent health issues in America today; there are an estimated 34 million Americans (greater than 10 percent of the population) that report hearing loss (HealthyHearing.com, 2013). The effects of aging are contributing to these numbers. Thirty percent of Americans between the ages of 65 and 74, and about 47% of Americans 75 years and older have hearing impairment (HearingHealthFoundation.org, 2013). But only forty percent of hearing impaired individuals with moderate to severe hearing loss use amplification devices such as hearing aids (Kochkin, 2009).

The majority of the hearing impaired population is diagnosed with a type of disorder that is medically non-restorable, and the most common way to improve communication is through the use of electronic amplification devices such as hearing aids or assistive listening devices. The vast majority of these amplification devices are battery powered and susceptible to failure due to loss of power and other malfunctions. Some training in battery replacement, hearing aid troubleshooting, and device manipulation is provided to all individuals who wear such devices. However, the degree to which a hearing impaired individual is trained is very broad and it is common for a device user to need assistance to assure proper usage. Therefore, when a hearing impaired individual becomes a healthcare patient, it is imperative that the healthcare provider is knowledgeable of the communication needs of the hearing impaired and their devices and has an appropriate comfort level in treating the patient.

A cursory overview of curricula in U.S. Nursing schools reveals little if any formal training regarding the communication needs of the hearing impaired patient. Topics addressing the

management of hearing impaired patients and/or hearing devices in continuing education courses to maintain nursing licensure were also not evident. Thus, there is reason for concern that nursing curricula are not sufficiently addressing the communication needs of the hearing impaired patient. Exacerbating this concern is that the prevalence of hearing loss in the United States is predicted to grow significantly because of an aging population and an increase in the opportunities for hearing impairment due to hazardous noise exposure as seen in the growing use of personal listening devices (Agrawal Y. P., 2008). Given this development, health care professionals will undoubtedly see more patients with hearing impairment. But because only one in four individuals with hearing loss elects to use hearing aids, (Kochkin, 2009) there may be no visible evidence that a patient has a hearing loss.

## **METHOD**

This project surveyed nurses' self-acknowledged skills and awareness of special communication needs associated with patients at a medical center who are hearing impaired and/or wear hearing aids or have cochlear implants. The survey (Appendix I) consisted of two demographic statements and ten knowledge/skill statements developed by the authors. The ten knowledge statements were intended to identify specific knowledge and skill areas such that, if a need for educational interaction was identified, this interaction could be made available. The two demographic questions addressed were employment status and length of employment at a facility. Response options to each knowledge/skill survey question were based on a four category scale ranging from "Strongly Agree" to "Strongly Disagree". The survey was distributed to 205 (101 at facility number 1 and 104 at facility number 2) professional nursing employees at two large medical facilities in the southeastern United States. Participants

completed the surveys in various places within each facility. All surveys were completed on the same day they were distributed.

## RESULTS

The responses to the two demographic statements showed that all participants were employed as nursing personnel and that their experience levels varied from less than five years to more than ten years. Responses to the four agreement categories for the ten knowledge/comfort level statements were combined to form two overall rating categories (agree/disagree). Table 1 shows the quantity and percentages of respondents for each statement. No formal statistical analyses were performed.

Table 1: Summary of responses provided by 205 nurses, combined across two medical centers.

SURVEY STATEMENT		AGREE DISAGREE	
1.	I know how to replace a battery in a hearing aid	90 (44%)	115 (56%)
2.	I know how to replace a battery in a cochlear implant	9 (4%)	196 (96%)
3.	I know how to place a hearing aid into a patient's ear	131 (64%)	74 (36%)
4.	I know how to troubleshoot a hearing aid to determine why it is not functioning	39 (19%)	166 (81%)
5.	I know how to verify that a hearing impaired patient has understood a verbal communication	164 (80%)	41 (20%)
6.	I am knowledgeable of the assistive listening devices that are useful for hearing impaired patients	99 (48%)	106(52%)
7.	I know how to troubleshoot a patient's hearing aid that is whistling	89 (43%)	116(57%)

8.	I know how to speak at an appropriate level and rate when communicating with a patient with a hearing loss	174 (85%)	31(15%)
9.	Patients with a hearing loss are more difficult to treat than normal hearing individuals	106 (52%)	99(48%)
10.	When I determine that a patient has a hearing loss, I tend to reduce my communications with them	22 (11%)	183 (89%)

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Note that for statements one through eight an “agree” response designates the respondent has the requisite knowledge or competence for that content area. While an “agree” response for questions nine and ten may designate a need for improving a nursing personnel’s comfort level with hearing impaired patients. Also, one must consider that statements of the type used in this survey are subject to interpretation. For example, an “agree” response to statement number ten may be interpreted in several ways. Some nursing healthcare professionals may reduce their communications with a hearing impaired individual because a particular hearing impaired individual may be profoundly deaf and incapable of perceiving spoken messages and may designate knowledge by the nurse that an alternative communication system, such as sign language, is required. On the other hand, some nursing healthcare professionals may reduce their communications with a hearing impaired individual because they are unaware of proper speaking levels or speaking rates. We have taken into consideration that each statement used in our survey is subject to interpretation. One consideration to control for variability in statement interpretation by respondents is to adapt a conservative criterion for identifying knowledge/comfort level areas that need improvement.

To identify potential educational needs, an arbitrary criterion of 80% or less was designated as indicative of an educational or comfort level area that needed improvement and for which continuing education seminars could be arranged. Given the criterion, we found that the following two statements are areas in which no additional education or awareness training is needed at the facilities surveyed:

- *I know how to speak at an appropriate level and rate when communicating with a patient with a hearing loss.*
- *When I determine that a patient has a hearing loss, I tend to reduce my communication with them.*

The following eight statements are knowledge/skills or comfort level areas in which curricular intervention is recommended:

- *I know how to replace a battery in a hearing aid*
- *I know how to replace a battery in a cochlear implant*
- *I know how to place a hearing aid into a patient's ear*
- *I know how to troubleshoot a hearing aid to determine why it is not functioning*
- *I know how to verify that a hearing impaired patient has understood a verbal communication*
- *I am knowledgeable of the assistive listening devices that are useful for hearing impaired patients*
- *I know how to troubleshoot a patient's hearing aid that is "whistling"*
- *Patients with a hearing loss are more difficult to treat than normal hearing individuals*

## **DISCUSSION**

The survey results suggest that the knowledge base and comfort level with hearing impaired patients for the nursing personnel involved in this project should be expanded to include the communication needs of the hearing impaired patient. Although this sample was small and limited to only one region it is reasonable to consider that it may be representative of other medical centers. Additionally, given that the hearing impaired population is growing, there is sufficient evidence to recommend that all nurses receive training in the communication needs of the hearing impaired. However, a more detailed survey of nursing curricula may reveal that indeed there are already some programs that contain the suggested curricular content regarding the needs of the hearing impaired patient. Also, the degree to which a curriculum should be expanded, or the manner in which it should be expanded, will certainly vary considerably from one institution to another. However, based on the results of this preliminary survey of a small sample of nursing personnel, a minimum curricular content for nursing training programs is suggested. This minimum curriculum change should address all the content areas contained in the survey's ten questions. The manner in which the suggested curriculum is introduced may also vary considerably, but may consist of adding a new course or increasing the scope of an existing course. Given these findings and considerations, researchers involved in this project have begun the task of developing a training module for a local university based nursing program, which will include lecture materials, training videos, hands-on orientation with hearing aids and cochlear implants, and return demonstration of knowledge and skills as they apply to the communication needs of the hearing impaired patient. Video and lecture content will be made available to the facilities that participated in this survey.



**CONCLUSION**

Given the rapidly growing population of aging hearing impaired individuals and the associated increase in hospitalization of the aging population, along with the findings of the survey conducted in this project, there is sufficient evidence to consider the inclusion of the communication needs of the hearing impaired patient in the nursing curriculum. In 2004 an estimated 28 million people in the United States were reported to be deaf or hard of hearing (U.S. Department of Health and Human Services, 2004). Current estimates indicate that the hearing loss population has grown to 34.25 million (Kochkin, 2009). Given this rapid increase in the population of hearing impaired individuals, the need for nursing personnel to be knowledgeable of their needs becomes paramount.

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## Appendix I

**SURVEY: Patients With Hearing Loss***Demographic Data:*

1. I am currently employed as an LPN or an RN:       **YES**           **NO**
2. I have been employed:                   **Less than 5 years** \_\_\_\_ **More than 5 years** \_\_\_\_

*Please read each statement below and place a checkmark beside the level of agreement that most accurately describes you:*

1. I know how to replace a battery in a hearing aid.
- Strongly agree \_\_\_\_
- Moderately agree \_\_\_\_
- Moderately disagree \_\_\_\_
- Strongly disagree \_\_\_\_
2. I know how to replace a battery in a cochlear implant.
- Strongly agree \_\_\_\_
- Moderately agree \_\_\_\_
- Moderately disagree \_\_\_\_
- Strongly disagree \_\_\_\_
3. I know how to place a hearing aid into a patient's ear.
- Strongly agree \_\_\_\_
- Moderately agree \_\_\_\_
- Moderately disagree \_\_\_\_
- Strongly disagree \_\_\_\_
4. I know how to troubleshoot a hearing aid to determine why it is not functioning.
- Strongly agree \_\_\_\_
- Moderately agree \_\_\_\_
- Moderately disagree \_\_\_\_
- Strongly disagree \_\_\_\_

5. I know how to verify that a hearing impaired patient has understood a verbal communication.

Strongly agree \_\_\_\_

Moderately agree \_\_\_\_

Moderately disagree \_\_\_\_

Strongly disagree \_\_\_\_

6. I am knowledgeable of the assistive listening devices that are useful for hearing impaired patients.

Strongly agree \_\_\_\_

Moderately agree \_\_\_\_

Moderately disagree \_\_\_\_

Strongly disagree \_\_\_\_

7. I know how to troubleshoot a patient's hearing aid that is "whistling"

Strongly agree \_\_\_\_

Moderately agree \_\_\_\_

Moderately disagree \_\_\_\_

Strongly disagree \_\_\_\_

8. I know how to speak at an appropriate loudness level and rate when communicating with a patient with a hearing loss.

Strongly agree \_\_\_\_

Moderately agree \_\_\_\_

Moderately disagree \_\_\_\_

Strongly disagree \_\_\_\_

9. Patients with a hearing loss are more difficult to treat than normal hearing individuals.

Strongly agree \_\_\_\_

Moderately agree \_\_\_\_

Moderately disagree \_\_\_\_

Strongly disagree \_\_\_\_

10. When I determine that a patient has a hearing loss, I tend to reduce my communications with them.

Strongly agree \_\_\_\_

Moderately agree \_\_\_\_

Moderately disagree \_\_\_\_

Strongly disagree \_\_\_\_