ORIGINAL RESEARCH

Understanding the Hospital Experience of Older Adults with Hearing Impairment

Findings from a qualitative study.

Although people can experience hearing difficulties at any age, advanced age is a strong predictor.[1] According to the National Institute on Deafness and Other Communication Disorders (NIDCD), almost 25% of adults ages 65 to 74 years, and 50% of those ages 75 years and older, experience disabling hearing loss.[1] Between 2012 and 2050, the number of older adults is expected to nearly double[2]; so it stands to reason that the number of those with hearing impairment will also rise. Hearing-impaired older adults are more likely to be hospitalized than those without such impairment,[3] and their mortality rates are also higher.[4] Clearly, communication difficulties resulting from hearing impairment will adversely affect information exchange. Such difficulties can also affect overall quality of life in various ways. These include decreased social functioning[5]; decreased physical functioning[6]; emotional reactions such as depression, loneliness, frustration, and anxiety[5]; and exacerbation of cognitive decline.[7] Among frail elderly patients with multiple comorbidities, hearing loss has been cited as a contributing factor "in common geriatric syndromes such as confusion, falls, social withdrawal, and failure to thrive."[8]

Addressing the needs of hearing-impaired patients in the hospital setting can be challenging, given that critical health-related information must be exchanged, often within time constraints. A recent national survey of hospice and palliative care providers found that 88% could recall a situation in which patients' hearing deficits hampered communication.[9] Indeed, patients with hearing loss may withdraw from conversation[5] or misinterpret its content, causing them to be mislabeled as confused.[10]

Little research has been conducted regarding the experiences of older hearing-impaired adults in the hospital setting. Yet it's well known that effective communication is crucial to ensuring positive patient experiences and outcomes. Nursing staff must appreciate the particular challenges involved in communicating with this population, and take steps to ensure that patients understand important information, both during hospitalization and during subsequent care transitions.[11]

Study rationale and purpose. Having a better understanding of the perceptions of hospitalized hearing-impaired older adults and addressing communication barriers in the hospital setting would improve both the patient's hospital experience and the quality of care. This study was conducted to assess the hospital experience of older adults with hearing impairment, and to use the findings in formulating suggestions for improving nursing care.

BACKGROUND

Literature review. We conducted a search of English-language, peer-reviewed publications in the databases Journals@OVID, MEDLINE, and CINAHL for the years 2010 through 2013, using the search terms *hospital experience* and *seniors*. This revealed two articles that focused on the hospital experience of older

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ABSTRACT

Background: Older hospitalized adults with hearing impairment are vulnerable to adverse outcomes. These patients are at risk for being labeled confused, experiencing a loss of control, experiencing heightened fear and anxiety, and misunderstanding the plan of care.

Objective: This qualitative study sought to assess the hospital experience of older adults with hearing impairment in order to formulate suggestions for improving nursing care.

Methods: Open-ended interviews were conducted with eight participants, ages 70 to 95 years, who were identified as having a hearing impairment and were admitted as inpatients to a midwestern medical center.

Results: Through data analysis, three common themes emerged: health care communication difficulties, passivity and vulnerability, and frustration with family.

Conclusions: Nurses will benefit from having a deeper understanding of the hospital experience of this vulnerable population. Efforts to address their needs can be accomplished through the following nursing actions: assess, accommodate, educate, empower, and advocate.

Keywords: hearing impairment, hospital experience, older adults

adults but did not specifically address hearing-impaired patients. One of these, a systematic review of qualitative studies published between 1999 and 2008, focused on the hospital experience of older adults and their family members.[12] The researchers found that communication difficulties may contribute to feelings of anxiety and powerlessness. The second article reported on a qualitative study conducted among frail elderly patients.[13] The researchers found that many such patients perceive the hospital setting as "an institution of power with which it is not possible to argue or disagree." Communication difficulties were cited as a barrier to information exchange.

We conducted additional searches using "*senior* or *older adults* or *elderly*" combined with *hearing loss*, *hearing aids*, *hospital experience*, *continuity of care*, or *communication*, and this revealed several more studies. We also consulted the reference sections of identified studies to locate additional sources, and we repeated the literature searches for the years 2013 through 2016 during the writing of this article. In one study that did not specifically consider hearing impairment, Rustad and colleagues interviewed hospitalized elderly patients about their experiences with the transition from the hospital to community health care services.[11] The researchers found that while some participants were content with "handing over the responsibility" for the transition, most wanted to be more actively involved and wanted more information. Citing other research, Rustad and colleagues noted that power inequities between patients and professionals leave patients "in a vulnerable position and [they] may therefore be reluctant to communicate their preferences." The identified articles that did involve hospitalized older adults with hearing impairment focused solely on hospice and palliative care patients. Smith and colleagues, using an illustrative "case presentation" of a hospitalized patient on palliative care, noted that patients may delay disclosure of hearing loss and that such loss can interfere with communication during care meetings.[14] Olson and McKeich provided three illustrative "case scenarios" involving hearing-impaired older adults (one hospitalized and two in home settings) to highlight the communication barriers these patients encounter.[15] Both articles recommend proactively screening patients for hearing loss, training providers in effective communication strategies for hearing-impaired patients, and using such strategies.[14, 15]

A few sources addressed hearing aids. According to the NIDCD, fewer than 30% of people ages 70 years and older who would benefit from using hearing aids actually do so.[1] And in an analysis of data from the 1999–2006 National Health and Nutrition Examination Survey, Chien and Lin found that only one in seven hearing-impaired adults ages 50 years and older used hearing aids.[16] The authors cited the absence of hearing aid reimbursement from insurers as one possible factor. The relatively high cost of these devices might also cause some patients to leave them at home during a hospitalization. Lastly, a study by Midha and Malik found that hearing aids were often ineffective.[17]

METHODS

Setting and sample. The setting was a 600-bed hospital in the Midwest. Institutional review board approval was secured before data collection began. A purposive sampling technique was used. Nurse managers on adult inpatient floors were educated on the study through leadership meetings and follow-up e-mails. The nurse managers were asked to share this information with bedside nurses, who then identified

potential patient participants. Once a nurse identified a potential participant, inclusion criteria were applied and verified. Inclusion criteria included being an inpatient, being 65 years of age or older, and having self-reported hearing loss. The exclusion criterion was having cognitive impairment severe enough to impede communication and prevent participation in an interview. Bedside nurses screened out such patients.

Eight patients who met the criteria consented to participate in the study. Efforts to recruit more patients were hampered by time constraints and a lack of referrals; nevertheless, this sample size was adequate to permit common themes to emerge. The participants were five men and three women, ranging in age from 70 to 95 years. All were white. Their lengths of hospital stay ranged from two to nine days. See Table 1 for more demographic information.

Both verbal and written informed consent were obtained before an interview began. The primary investigator (one of us, AF) conducted the open-ended interviews, which were held either in the patient's room or in a private lounge area, whichever the patient preferred. Each interview was audio recorded, and was subsequently transcribed by a member of the research team (AF, CG). In order to ensure confidentiality, pseudonyms were used in the transcribed interviews, and each transcript was assigned a number. The number key was kept in a different location from the transcripts and field notes. During the interviews, periodic checks were conducted to confirm the participant's willingness to continue. Participants were also monitored for fatigue; if fatigue was noted, they were offered a break. A personal sound amplifier was made available to participants during interviews but was not utilized. No reasons were given for declining its use. (Personal sound amplifiers work similarly to hearing aids, but are less expensive and don't require consultation with an audiologist; a variety of such devices is available.)

Table 1. Participant Demographics

Patient Pseudonym	Sex	Age (years)	Length of Stay (days)
Curt	male	88	3
Alice	female	95	7
Nate	male	70	7
Ava	female	84	3
Virgil	male	78	9
Matt	male	80	4
Irene	female	76	2
Ken	male	73	7

Data collection. Interviews were conducted between July 1 and December 31, 2014. Six interviews were conducted in a private hospital room and two were conducted in a private lounge area. The interviews followed the four phases outlined by Jovchelovitch and Bauer: initiation, narration, questioning, and concluding talk.[18] Each interview began with an open-ended invitation to the participant to share her or his experience as a hospitalized patient with hearing impairment. As each person's story unfolded, additional questions that arose naturally were asked. A brief concluding talk phase was completed after the recorder was turned off. Field notes were also taken.

Data were collected until saturation was reached. Saturation was defined as the point at which no new themes emerged from the interviews. The last two interviews provided no new information, but served to corroborate previous findings.

Data analysis. The interview transcripts were checked for accuracy by a member of the research team (AF, CG). Data from the interviews and field notes were coded for themes by all of the researchers, using a process described by Jovchelovitch and Bauer.[18] First, a serial paraphrasing procedure was used: paragraphs were paraphrased into summary sentences, and these sentences were further distilled into summary keywords or phrases. Then, as themes emerged from individual interviews, they were compiled into common themes or categories representing patients' hospital experience.

FINDINGS

Data from the interviews and field notes revealed three relevant themes: health care communication difficulties, passivity and vulnerability, and frustration with family.

Health care communication difficulties. All of the participants discussed communication barriers within the hospital setting. Some participants indicated that they avoided sharing with staff that they were having difficulty hearing. Barriers to such disclosure included frustration and embarrassment in relation to misunderstanding conversation and not wanting to inconvenience staff. For example, during a conversation with a nurse, one participant thought he heard a sexual comment, though he knew this didn't fit the context.

> [The nurse] didn't say anything like that. That could have caused me a good deal of embarrassment. (Nate)

Another participant commented,

> It gets a little irritating to have to say, "What'd ya say?"(Virgil)

It was also noted that participants evaluated both verbal (tone of voice) and nonverbal (facial expression)

cues of health care staff when deciding whether to disclose hearing loss.

Some participants mentioned trying to judge which conversations were important enough to warrant asking for clarification. Barriers to understanding conversations included speech with unfamiliar accents, staff speaking too loudly, difficulty hearing telephone conversations, and difficulty hearing conversations through the call system speakers. One participant said,

> I can't hear over [the call system speaker] when I call the nurse. I can't hear what she says back to me. (Irene)

Some participants noted that they had left their hearing aids at home with family members, out of concerns about loss and replacement costs.

Recommendations offered by participants for improving communication included staff exhibiting more patience, using pencil and paper to convey information, repeating things more than once, and sharing information about patients' hearing deficits at shift handoffs so patients don't have to keep reminding staff. As one participant noted,

> Once you know someone has trouble hearing, just change [your] behavior for the next encounters—don't ask them to keep reminding you and asking to repeat. (Matt)

Passivity and vulnerability. In all of the interviews, the frailty of the participants was noted. Their dependence on staff for help with even minor activities, such as finding the call light in the dark or moving up in bed, was a source of frustration and helplessness. Having hearing deficits added to this dependence, increasing their sense of vulnerability and contributing to a certain passivity. Asked whether there was anything staff could improve on with regard to communication, one participant (Alice) said, "No, you can't improve my hearing." Several participants reported that they had not told staff about specific barriers to hearing, such as difficulty with the call system speakers, multiple people speaking at once, and unfamiliar accents. The interviewer's impression was that participants were used to waiting for care rather than actively seeking it. The overall fast pace and noise of the hospital setting were also distressing, and exacerbated these feelings of frustration and helplessness.

One factor was a perceived disconnection from the staff who were providing care. Participants did not expect staff members to accommodate their hearing impairment and consequently withdrew from participating in their care. Several participants indicated that they only disclosed hearing loss to staff members who showed concern about, and interest in helping with, communication difficulties. One participant said,

> I usually don't [tell staff that I have hearing loss] unless they ask me about it. Sometimes I do, and other times I just figure—why bother? They don't really care. (Nate)

Several participants indicated that they only disclosed hearing loss to staff members who showed concern about, and interest in helping with, communication difficulties.

Even when participants did ask staff to repeat or clarify information, they reported that they often gave up if they still didn't understand or had to ask repeatedly. One participant said,

> It's disturbing, because needless to say I want to know what's being discussed. . . . I just lose interest after a while if I don't follow what's going on. (Matt)

Their vulnerability in this regard was often expressed as irritation or anger. Participants spoke of frustration not only with other people, but also with their own hearing deficits. Another participant stated,

> It just kinda irritates me that I am not able to hear. Or that . . . I thought I heard something that I did not hear. Yes, and then I get angry. Sometimes in return, they get angry. It just creates a very unpleasant experience. (Nate)

Frustration with family. Although participants weren't directly asked about family members, several disclosed emotional pain related to family interactions, both in the hospital setting and at home. Family members often participate in care conversations, and several participants indicated that family members actively assist them with health issues. Thus such disclosures are relevant, and are included with

the findings. Hearing-related communication issues with family members caused participants significant tension and distress, which was conveyed not only verbally but also through their facial expressions and tone of voice. One participant said,

> I tell you the truth—the one I have the most trouble understanding is my own son. He speaks so soft. And I'll say, "What did you say?" and he'll speak soft again and it'll keep going . . . "Talk up, would you?" I've had him repeat stuff often enough, you'd think he'd automatically raise his voice but he doesn't. (Virgil)

All of the participants discussed communication barriers within the hospital setting.

Several participants shared stories in which they missed the point of something that was said or responded incorrectly to questions, and family members laughed at these errors. One participant felt that, because of his hearing deficit, younger family members lacked respect for his life experiences and place in the family. Another said,

> My family all being younger, you know, I can't keep track of them. It becomes almost a joke. They know I am not picking up what's going on. And I repeat things I think they are saying. . . . They don't have the patience. They just go right on. "What you hear is what you hear, Dad." (Matt)

Another participant misunderstood something his sister said while visiting him in the hospital.

> She got angry. One day she was here, and I didn't understand. I said something, and she says, "Well, I'll just go back home." (Nate)

DISCUSSION

For the study participants, their communication difficulties were made worse when they had to contend with unfamiliar accents, telephone conversations, call system speakers, and not having brought their hearing aids. The interviews also revealed that the participants neither expected nor demanded accommodations, and that their communication difficulties contributed to strained family relationships. Participants indicated that impatience or derision from family members was deeply hurtful.

Some of the barriers to communication described by the participants have also been identified in the literature. In a study of frail elderly patients, Ekdahl and colleagues found that patients reported struggling to understand unfamiliar accents and perceived that hospital staff were too stressed and busy to accommodate their hearing deficits.[13] The researchers noted that these patients often felt powerless in the hospital setting. Smith and colleagues pointed out that denial of hearing impairment is not uncommon, both for sociocultural reasons and because slow incremental hearing loss may not prompt awareness.[14] Even when aware, patients may not disclose hearing deficits to providers. Midha and Malik found that hearing-impaired older adults, whether they used hearing aids or not, often experienced feelings of frustration and embarrassment.[17] A unique finding of our study was that participants considered both verbal and nonverbal cues from staff when deciding whether to disclose hearing loss.

Practice implications. Both at the bedside and in leadership roles, nurses can help improve the hospital experience of hearing-impaired older adults. Based on our study findings, the following primary nursing actions are recommended: assess, accommodate, educate, empower, and advocate.

Assess. Bedside screening for hearing impairment must be efficient and practical. Nurses should note any nonverbal signs of a hearing deficit, such as cupping the ear or turning the head to one side when asked questions, or misunderstanding questions. One method is simply to ask the patient whether she or he has a hearing impairment. But given that many people are unaware of or deny having such impairment, the screening should take the form of a short discussion rather than a yes-or-no question. The nurse should ask, "Can you tell me about any problems you have with hearing or understanding conversations?" If hearing problems are revealed, follow-up questions should be asked. These should focus on potential barriers, such as background noise, unfamiliar accents, and call system speakers. Once specific barriers are identified, the nurse should ask the patient her or his preferred methods for addressing them, such as using personal sound amplifiers, communicating with pen and paper, and using other written materials. This information can then be used in developing a quick plan for facilitating communication.

Another effective, objective hearing test is the finger rub test.[14,19] The test involves asking the patient to close her or his eyes; the clinician then stands six to 10 inches in front of the patient with arms extended and rubs the thumb and middle finger together, first vigorously and then faintly, switching from side to side. Failure to hear the sound two out of three times

Key Communication Strategies for Hearing-Impaired Older Patients[8, 14, 15, 17]

- Use nonverbal and verbal means of communication to convey a calm and caring presence.
- Reassure the patient that clarifying questions are expected and welcome.
- Position yourself at eye level with the patient, making sure she or he can see your mouth.
- Do not yell; instead, speak clearly and drop your voice to a lower pitch.
- Offer a personal sound amplifier. If the patient has brought hearing aids, encourage the patient to use them.
- Reduce extraneous noise by shutting off media devices and closing the room door.
- Use pictures and printed information to help convey information.
- Use the teach-back method—ask the patient to repeat or rephrase the information presented.
- If the patient asks you to repeat a question, rephrase instead of repeating it—different words may be more easily heard.

is considered a positive test. Referrals may be made for follow-up outside the hospital.

Accommodate. Ample time should be given to establishing trust and rapport, which can help a patient feel more willing to disclose hearing issues. The strategies described in *Key Communication Strategies for Hearing-Impaired Older Patients*[8, 14, 15, 17] should be used. For example, understanding and accommodating the need for a quiet setting, minimizing extraneous noises, and speaking clearly and slowly can all help to prevent or relieve frustration. It's important for nurses to document the patient-specific strategies used and to share this information during handoffs; doing so can foster more consistent behavior by staff. Nurses should also ensure that a supply of personal sound amplifiers and batteries are available on the unit.

improve patient outcomes during hospitalization and discharge, and may help prevent rehospitalization.

Nurses can add short, empowering statements during daily care. For example, the nurse might say, "If you have trouble hearing the doctors or nurses, please ask us to write the information down, speak more slowly, or explain in a different way. We want to make sure you hear us and understand what we're saying"; and "If we forget to turn off the television, close the door, and face you when we speak, please remind us!" Nurses should also invite and encourage patients to participate in care discussions,[11] and to ask staff to make necessary accommodations that facilitate communication.

Advocate. Nurse leaders can advocate system-wide education on hearing impairment in older adults. A lack of awareness of and knowledge about hearing

At the bedside, nurses can advocate for their patients by ensuring that hearing accommodations are followed.

Educate. Bedside nurses can help educate patients and families on the use of key communication strategies. A handout outlining these strategies should be made available. Given that many hospitalized patients leave their hearing aids at home, it's also important for nurses to explain the importance of using hearing-assistive devices during a hospital stay, and to ensure that patients and families know such devices are readily available.

Empower. Empowerment can be crucial for these patients, who may feel powerless and become passive. Patients have the right to be informed about their plan of care, and encouraging their active participation improves their understanding and involvement in decision making. As such it's also likely to

impairment will impede the identification of such patients and the prioritization of making accommodations. Although we could find no statistics specific to inpatient clinicians, a recent survey of hospice and palliative care providers found that only 21% had received training in the management of hearing loss.[9] Jenstad and Donnelly have reported that one barrier to addressing hearing-related communication difficulties is that providers have limited time and competing priorities when they assess older adults with multiple health care issues.[20]

Staff education should promote awareness that failing to address hearing deficits can have potentially serious consequences.[20] It should include information on how the various types of hearing loss can affect

communication,[20,21] and should cover the screening techniques and communication strategies described earlier. Nurses could lead an initiative to evaluate and improve system-wide processes for identifying and accommodating the needs of older patients with hearing impairment. At the bedside, nurses can advocate for their patients by ensuring that hearing accommodations are followed and by periodically reassessing the plan of care and its outcomes.

Limitations. Because all of the participants were white, the findings may not be generalizable to patients of other races or ethnicities. Only subjective measures of hearing loss and cognitive function were employed in assessing potential participants; the use of objective assessment methods would have been ideal. The sample size was small and may not fully represent the hospital experience of older adults with hearing deficits. Moreover, we were unable to reach saturation based on the number of interviews. Follow-up interviews with participants or the use of focus groups would have increased the strength of our findings.

Further research. The hospital experience of hearing-impaired older adults is unique, and much remains to be discovered. To improve our understanding, more patient interviews are needed. Specific areas that warrant further research include hospital procedures for accommodating the needs of this population, the knowledge level of staff, and adverse patient outcomes related to hearing deficit.

CONCLUSIONS

Hearing impairment in older adults impairs communication and functionality both within the health care system and the family. In the hospital setting, older patients with hearing deficits often withdraw from care discussions or misunderstand what is being said, thus missing crucial information. By addressing communication difficulties through screening and care planning, nurses can significantly improve the hospital experience of these patients. Nurses can educate patients and family members in how to use key communication strategies, and can advocate that clinicians make appropriate accommodations during the hospital stay. The patients' vulnerability and tendency toward passivity can be counteracted through empowerment, encouraging them to participate in care conversations. When possible, nurses should lead efforts to improve relevant policies and procedures within the health care system and advocate for better staff education regarding hearing impairment. Lastly, with patients' permission, nurses can address the frustration that hearing-impaired patients often feel regarding communication with family members. ▼

For five additional continuing nursing education activities on the topic of hearing impairment, go to www.nursingcenter.com/ce.

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