

Hearing Loss in Later Life: How Couples Cope

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This study used structured interviews with 14 older adults (7 couples aged 69-85) to investigate the impact of hearing loss on marital relationships in late life and examine how couples cope with hearing loss. Most respondents reported high marital satisfaction despite a number of difficulties associated with hearing loss, indicating adaptation and accommodation. A variety of coping strategies were conveyed. Results suggest a gender imbalance in coping, with women taking more responsibility. Knowledge of aural rehabilitation (aside from hearing aids) was severely lacking. Framing hearing loss as a natural part of the aging process may contribute to complacency with sub-optimal hearing.

Hearing loss is one of the most frequently occurring age-related chronic conditions. Recent analyses of data from the National Health and Nutrition Examination Survey have found that approximately 49% of 60- to 69-year-olds have thresholds greater than 25 dB HL in the speech frequencies (Agrawal, Platz, & Niparko, 2008); prevalence rises to 63% for the 70 and older population and to 80% for people over age 85 (Lin, Thorpe, Gordon-Salant, & Ferrucci, 2011). The aging of the Baby Boomer cohort, coupled with increases in the incidence of

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hearing loss that are independent of changes in the age composition of the population (Wallhagen, Strawbridge, Cohen, & Kaplan, 1997), mean that in the near future, a larger number and proportion of older adults will be experiencing hearing loss than ever before. As the number of people affected by hearing loss increases, it is essential to identify the negative effects of hearing loss and explore successful methods to minimize them.

Hearing loss has implications not only for the individual experiencing the hearing loss, but also for those with whom the individual interacts (Piercy & Piercy, 2002; Smith & Kampfe, 1997). Although individual variability is considerable, it is generally true that as hearing deteriorates with age, older adults experience increased difficulties with oral communication (Smith & Kampfe, 1997). For married individuals, spouses are also likely to be affected by these difficulties. Communication is an essential component of relationships and can be viewed as the process by which relationships are created and maintained (see Canary & Dainton, 2008). As a result, communication difficulties can contribute to the breakdown of communication in a marriage as previously relied-upon patterns of communicating are disrupted or are no longer effective (Piercy & Piercy, 2002). Previous research has found that hearing loss contributes to relationship strain and increases the probability of separation or divorce (Hallam, Ashton, Sherbourne, & Gailey, 2008; Jones, Kyle, & Wood, 1987; Thomas, 1984). This is a concern given that marital satisfaction and relationship quality have a profound influence on personal well-being, including physical health, depressive symptoms, self-esteem, global happiness, and life satisfaction (Proulx, Helms, & Buehler, 2007). Furthermore, married older adults are generally happier and healthier and live longer than their non-married counterparts (Manzoli, Villari, Pirone, & Boccia, 2007; Schoenborn, 2004). The purpose of this study, therefore, was to investigate the impact of hearing loss on the marital relationship and to examine how older couples cope with this condition. We also explored the role of aural rehabilitation services in facilitating coping with hearing loss among older couples and identified unmet needs.

Empirical studies have demonstrated that hearing loss and its personal impact have a significant influence on the well-being of spouses. Using longitudinal data, Wallhagen, Strawbridge, Shema, and Kaplan (2004) found that across physical, psychological, and social domains, increased hearing loss in one spouse predicted decreased well-being in the other spouse. Analyses by gender indicated that the negative effects on spouses' sense of well-being may be more pronounced in wives than in husbands. Also, perceptions of the participation restrictions and activity limitations imposed by hearing loss are strongly associated with measures of negative affect such as depression, sadness, worry, annoyance, and irritation, both for individuals with hearing loss and for their spouses (Preminger & Meeks, 2010b).

Differences between spouses in their evaluation of the severity and influence

of hearing loss are related to well-being as well. Preminger and Meeks (2010b) found that incongruence in hearing-related quality of life scores between persons with hearing loss and their significant others was individually associated with negative affect in both partners. Significant others reported lower levels of negative affect when they underestimated their hearing-impaired spouses hearing handicap relative to their spouse's reports, and higher levels of negative affect when they overestimated the hearing handicap. This is consistent with research reporting negative consequences of denied hearing loss on a spouse. In a study of couples in crisis due to a denied hearing loss, Armero (2001) found that the spouses of the person with a denied hearing loss were more likely than their partners to report reductions in social activities and problems with telephone use. Even when hearing loss is acknowledged, problems related to hearing can be denied or minimized. While denial is more commonly observed in the person with hearing loss, spouses have also been observed to deny or minimize the impact of hearing loss (Hallberg 1999; Hallberg & Barrenas, 1993).

Hearing loss also has distinct behavioral and emotional effects on significant others. In a study of patients being considered for their first hearing aid at an audiological rehabilitation clinic and their significant others, Stephens, France, and Lormore (1995) asked participants to list the difficulties they experienced as a result of hearing loss as well as the difficulties their significant other experienced. Both patients and significant others reported a greater number of psychosocial difficulties being experienced by the significant other than by the individual with hearing loss. The need to repeat oneself, the loudness of the television/radio, frustration, the need to speak loudly, and the need to talk on behalf of the person with hearing loss were identified as the most common problems. The findings also suggest that individuals with hearing loss underestimate the influence the loss has on their significant others (Stephens et al., 1995). Spouses of individuals with hearing loss or denied hearing loss often describe feelings of resentment, anger, depression, tiredness, frustration, and annoyance with the effects the hearing loss has on their everyday life (Armero, 2001; Hallam et al., 2008; Scarinci, Worrall, & Hickson, 2008; Stark & Hickson, 2004; Stephens et al., 1995).

The behavioral and emotional responses to hearing loss in both the person with hearing loss and their spouse have the potential to impact the nature and quality of the marital relationship. Spouses of individuals with hearing loss report a reduction in the amount and quality of communication in the relationship, especially with regard to spontaneous or intimate communication (Hétu, Jones, & Getty, 1993; Scarinci et al., 2008). In addition, the hearing loss often leads to a decrease in shared social and leisure activities such as going out to movies or concerts, socializing with mutual friends, or watching television together (Hallam et al., 2008; Hallberg, 1999; Scarinci et al., 2008). Although in some relationships the negative effects of hearing loss contribute to deterioration or complete breakdown of the marriage (Hallam et al., 2008; Scarinci et al., 2008), couples have

also demonstrated resilience in response to hearing loss (Yorgason, Piercy, & Piercy, 2007) or claimed no effect on the marital relationship (Hallberg, 1999; Scarinci et al., 2008).

Overall, the impact of hearing loss on both spouses as it relates to the marital relationship is poorly understood, particularly among older couples (Donaldson, Worrall, & Hickson, 2004). In a study of five female and five male spouses of older adults with hearing loss, Scarinci et al. (2008) explored this impact, but only from the perspective of the significant other. In addition, research is needed to investigate how older couples think about and adapt to hearing loss (Wallhagen et al., 2004). Yorgason et al. (2007) took an initial look at these questions in their study of seven older couples where one partner had a hearing loss; however, by interviewing couples together, each partner may have minimized any negative responses or revelations. Finally, a number of authors have emphasized the importance of a family perspective on rehabilitation (e.g., Hallam et al., 2008; Hallberg, 1999; Héту et al., 1993; Preminger, 2003; Preminger & Meeks, 2010a; Scarinci et al., 2008). Significant others report an improvement in quality of life when patients begin using a hearing aid (Brooks, Hallam, & Mellor, 2001; Stark & Hickson, 2004), and the involvement of significant others in group audiological rehabilitation programs has shown substantial benefits in a number of areas for both the person with hearing loss and their significant other (Preminger, 2003; Preminger & Meeks, 2010a). These studies demonstrate the benefits of participation in aural rehabilitation for individuals with hearing loss and their significant others on a range of outcomes. However, these assessments have often been conducted with closed-ended questions examining the effects of aural rehabilitation on specific problems. It is possible that the individuals with hearing loss or their significant others may have had needs that were not captured by the assessment questions. As aural rehabilitation broadens to encompass a family perspective, we need to identify additional needs that may not have been previously considered or addressed.

Given the current state of knowledge about the impact of hearing loss on older couples, how they cope, and the role of aural rehabilitation in the coping process, the current study was guided by the following research questions:

1. What impact does hearing loss have on the marital relationships of older adults?
2. How do older married adults with hearing loss and their spouses cope with the difficulties experienced as a result of hearing loss, and what advice would they offer to others embarking on the same experience?
3. What role do aural rehabilitation services play in coping with hearing loss among older married adults, and what additional resources are needed?

METHOD

Participants

Criteria for inclusion in this study were that participants had to be married, both spouses had to be age 65 or older, at least one of the spouses had to have at least a mild hearing loss, and both spouses had to agree to participate in the study. Couples were recruited from Senior Ears, a participant database maintained by the Speech Acoustics and Perception Laboratory at the University of Kansas, which was directed by the second author. A letter describing the present study was mailed to all married couples in the database (a total of 13 couples). Couples were then contacted by telephone to invite them to participate; seven agreed. Four couples did not return calls, one couple no longer resided locally, and one member of one couple was deceased. The 14 participants in this study ranged in age from 69 to 84 years ($M = 76$) and were non-Hispanic white. Three couples had been married for 5 to 10 years, while the other four had been married between 50 and 64 years. All participants had at least a high school diploma, with the majority having at least some college.

Each participant had received a comprehensive audiological evaluation upon joining Senior Ears; these evaluations took place within 2 or 3 years of the present investigation. Participant hearing status is shown in Table 1. All but 3 of the participants had hearing loss, resulting in four couples where both spouses had hearing loss and three where only one had hearing loss. Of the participants with hearing loss, 1 had a long-standing unilateral conductive hearing loss while the others had bilateral, essentially symmetrical sensorineural hearing loss. All participants had good speech understanding abilities (at least 88% correct on a list of 50 monosyllabic words presented in quiet at a comfortable level). Couples are ordered in Table 1 to aid readers referring to the table as they read excerpts below from various participants. The three couples in which only one spouse had hearing loss are listed first followed by those in which both spouses had hearing loss; within each sub-group, couples are listed by ascending degree of hearing loss for the poorest-hearing spouse.

Procedures

This study was approved by the University Human Subjects Committee and took place in the spring and summer of 2008. All participants were given written details of the study and provided informed consent to participate. Prior to being interviewed, participants were mailed a questionnaire with instructions requesting they complete it and bring it with them to their interview. The questionnaire was used to collect demographic information and details about self-rated hearing status, spouse's hearing status, hearing aid use, and marital satisfaction. In most cases, participants' self-rated hearing status in each ear was consistent with how their spouse rated their hearing using the categories of good, a

Table 1

Participant Hearing Status as Determined From Results of Audiometric Evaluation

Couple	Pseudonym	Hearing status	Hearing aid
1	Liz	Mild-to-moderate unilateral hearing loss	No
	Matt	Normal hearing	No
2	Terry	Normal hearing	No
	David	Mild-to moderate hearing loss	No
3	Hope	Normal hearing	No
	James	Moderate-to-severe hearing loss	No
4	Jill	Mild-to-moderate hearing loss	No
	Tom	Mild-to-moderate hearing loss	Yes/sometimes
5	Jenny	Moderate hearing loss	No
	Bob	Mild-to-moderate hearing loss	No
6	Cathy	Mild-to-moderate hearing loss	No
	Tony	Moderate hearing loss	Yes
7	Rose	Mild-to-moderate hearing loss	No
	Bill	Moderate-to-severe hearing loss	Yes

little trouble, a lot of trouble, or deaf. Three of the participants reported owning hearing aids, but only 2 wore them regularly and were wearing them at the time of the interview.

Marital satisfaction was measured on the questionnaire using six items from the Relationship Assessment Scale (RAS). The RAS has demonstrated sound psychometric properties including high test-retest reliability, construct validity, and internal consistency (Hendrick, Dicke, & Hendrick, 1998). Respondents were asked: (a) How well does your mate meet your needs?; (b) In general, how satisfied are you with your marriage?; (c) How good is your marriage compared to most?; (d) To what extent has your marriage met your original expectations?; (e) How much do you love your mate?; and (f) How many problems are there in your marriage? Responses to each question were indicated on a 5-point scale with higher scores indicating greater satisfaction (question f was reverse coded). Responses to the six items were summed and divided by 6 to create a final score.

A structured interview guide that allowed for open-ended responses was developed by the first and third authors based on the study objectives and findings from previous research. The interview questions focused on the effect of hearing loss on participants' marital relationships and how they and their spouses coped with various difficulties experienced as a result of hearing loss. In addition to general questions (e.g., How has the hearing loss impacted your relationship with your spouse? What strategies do you use to cope with your spouse's hearing loss?), specific questions were asked about the impact of hearing loss on social

life, shared activities, and communication. Participants were also asked what kind of advice they would offer to someone who is starting to experience hearing loss and to that person's spouse. In addition, specific questions were asked regarding hearing aid use and participation in aural rehabilitation programs as well as the resources the participants would like to have to help them cope with their or their spouse's hearing loss. To prompt participants to bring up any additional experiences or concerns not voiced during the course of the interview, the final question in each interview was: "Is there anything else you would like to share with me about your (spouse's) experience of hearing loss and how it has affected your marital relationship?" This procedure ensured consistency across interviews in that all participants were asked the same questions, and at the same time allowed participants to describe their experiences from their perspective and in their own words without limiting them to any preconceived ideas or topics (Hallberg, 1999; Scarinci et al., 2008).

The interviews were conducted by the third author, who had prior experience communicating with and interviewing individuals with hearing loss. Each participant was interviewed individually while his or her spouse waited in a separate room, yielding a total of 14 interviews. Interviews lasted 8 to 20 min and took place in a quiet, well-lit, private office on campus. The interviewer made a conscious effort to make sure she was heard by the interviewees by choosing an appropriate location for the interview, sitting close to the participants, and facing them when speaking (Wenger, 2002). All interviews were transcribed verbatim by the interviewer and complete transcripts were compared with the original audio-recordings to ensure accuracy. During the transcription phase all participants were assigned pseudo-names to protect confidentiality.

The style of the interviews was designed to solicit information from participants directly addressing the research objectives with minimal input from the interviewer. This approach differs from the semi-structured or thematically guided in-depth interviews seen elsewhere in qualitative research studies where the interviewer co-produces a narrative with the respondent by probing and allowing new questions to be brought up during the interview based on the responses. The role of the interviewer in this study was to ask a formalized, limited set of questions, be an empathetic listener, and audio-record the responses. This yielded shorter interviews than semi-structured or thematically guided in-depth interviews but produced more detailed responses than would be expected from a paper-and-pencil survey.

Analysis

The verbatim transcriptions of the 14 interviews were analyzed using qualitative content analysis. Inductive qualitative content analysis was chosen because of this project's focus on the informational content of the data, rather than on theory testing or development (Elo & Kyngas, 2007; Forman & Damschroder, 2008;

Hsieh & Shannon, 2005; Knudsen et al., 2011). QSR Nvivo 8, a qualitative software program, was used to organize and manage the data and facilitate team coding. Analysis of the data occurred in three phases: immersion, coding, and interpretation.

In the immersion phase, the first and third authors read all of the transcripts in their entirety several times to capture a holistic view of the data and gain a general impression of the participants' experiences. The data were then broken down into smaller segments of text (meaning units) composed of a sentence or a sequence of sentences related by content and context (Graneheim & Lundman, 2004). The content of each meaning unit was then assigned one or more codes. A code can be viewed as a short descriptive label for the content of a meaning unit that often comes directly from the text; therefore if a meaning unit contains more than one idea it can have multiple codes. Codes were freely generated as they appeared in the data, reflecting an inductive approach to analysis. Forman and Damschroder (2008) argue that most content analysis involves both inductive and deductive codes, with deductive codes being those that existed prior to data analysis. In addition to codes constructed from the relevant theoretical literature, they argue that deductive codes include codes identified based on previous research, the questions asked in the data collection process, and even the units of analysis (e.g., race of the respondent). In this light, some of the codes developed in our analysis could be viewed as deductive codes because they reflect responses to specific questions asked during data collection. Nonetheless, our analysis was inductive in that our codes were derived from the data and were not limited to codes developed a priori.

The coding of the data was an iterative, negotiated process whereby the first and third authors independently coded the data, compared their coding, reflected on the codes, and resolved discrepancies through discussion and negotiation (Forman & Damschroder, 2008; Graneheim & Lundman, 2004). During this process codes were created, renamed, collapsed, and expanded, requiring the researchers to frequently revisit the data and recode with the newly refined codes. After the coding was completed using this consensus process and a final codebook generated, the second author read through the transcripts and independently coded the data using the codebook, while at the same time being open to new codes emerging in the data. No new codes were identified, indicating that the established codes captured the entire range of ideas expressed in the data. Inter-rater reliability was 95.6% indicating high coding reliability.

After the data were coded, the text was rearranged from individual interview transcripts into code reports listing all of the text associated with each particular code (Forman & Damschroder, 2008). The first author then read each code report to make connections between codes and allow for analysis at a higher analytical level. This abstraction resulted in nine sub-themes that clustered under three major themes (see Table 2). The data in each sub-theme were then analyzed

Table 2
Themes and Sub-Themes Emerging From the Data

Sub-themes	Themes
Communication difficulties Changes in shared activities Negative emotional responses	Challenges of hearing loss
Normalizing Applying positive attitudes Developing specific techniques Consulting experts	Coping strategies
Pushing for testing or treatment Implementing daily coping strategies	Taking responsibility

by looking for common and contrasting patterns across cases (both individual cases and couples). The data were revisited in whole and in parts to look for alternative explanations and negative cases. Descriptive and interpretive summaries of the data contained in each category were produced and quotes were chosen from the data to exemplify each of the identified categories. The second and third authors read the results and substantiated their consistency with the data.

RESULTS

Almost all of the participants reported high levels of marital satisfaction. The average Relationship Assessment Scale score for the participants in this study was 4.3 out of 5, indicating high marital satisfaction and non-distressed partners (Hendrick et al., 1998). Participants overwhelmingly responded to direct questions about the marital impact of hearing loss with declarations of no effect. However, analysis of the interviews demonstrated consistent reports of marital adaptation and accommodation in response to hearing loss. This adaptation and accommodation was evident in the three major themes related to the experience of hearing loss that emerged from the data: challenges of hearing loss, coping strategies, and taking responsibility. Each of these themes was comprised of a number of sub-themes. The results section is organized by theme and sub-theme, as shown in Table 2 and detailed below.

Challenges of Hearing Loss

Three sub-themes reflecting challenges associated with hearing loss emerged from the data: communication difficulties, changes in shared activities, and negative emotional responses. All participants reported difficulties or losses in one or more of these areas. No one in our study mentioned or alluded to any positive

effects of hearing loss.

Communication difficulties. Hearing loss contributed to frequent misunderstandings regarding what was said or heard. Our respondents noted that these misunderstandings were often inconsequential or caused only momentary distress. Occasionally, however, they led to larger problems such as missed events. In addition, there was some concern among respondents that over time, if the hearing loss progressed, the problems associated with communication difficulties wouldn't be as easy to overlook. For example, Terry said, "it's not that much you know; it's just occasionally maybe a little frustration like that's not what I said you know, something like that. But not dramatic, not yet (laughs)."

Another response to hearing loss that was mentioned was foregone communication. Some couples evaded communication problems in noisy environments by not talking to each other, choosing instead to remain silent and save conversation for later. In group settings, some respondents chose to focus on listening to everyone else and refrained from contributing to the conversation. Cathy, who has mild-to-moderate hearing loss, reported that when she is having difficulty hearing in a noisy environment, she just tries "to listen to everybody else and not really communicate." Other respondents said, "give up" or "don't even try" if conditions are not ideal to hear your partner or have them hear you. Although all of the spouses in our study were aware of their significant other's hearing loss, this awareness did not prevent the occasional suspicion that their spouse was only pretending not to hear them. Indeed, one respondent even admitted to pretending not to hear on occasion, but this was not typical. Overall, there was a sense that the hearing loss contributed to less frequent spontaneous conversations or commentary between spouses that persisted even when environmental conditions were conducive to communicating.

Changes in shared activities. Changes in social activities were often attributed to aging instead of hearing loss. Cathy said, "I think that we don't do a lot of things more because of our age than we do of the hearing." However, it may be difficult to disentangle the effects of aging and the effects of hearing loss. For example, while Matt claimed, "as you grow older we actually prefer to have more peace and quiet than loud noises or loud music or something like that," other participants said they avoid large crowds and noisy environments such as sporting events because of their hearing loss. The overpowering background noise makes it difficult for them to carry on a conversation or follow what's going on, making these activities less enjoyable. In contrast, some respondents felt that their social activities had not changed specifically because they were older and they felt others were accepting of the hearing loss because of this. For example, when asked if his social life had been impacted by his hearing loss, Bill said no, because "a lot of the people are, you know, my age and they've all got hearing loss." This suggests a certain level of tolerance for communication difficulties associated with hearing loss among older adult peers.

Many participants reported difficulties watching television together. Hope said: “we can’t watch television together because it just drives me out of the room.” Her husband James admitted, “80% of the TV we watch I’m watching one set and she is watching another.” Others reported coming to some sort of compromise, but this did not always result in a satisfactory experience for both individuals. Terry explained, “I know sometimes . . . he misses some of it, because you know I want it turned down a little bit . . . because he will say to me ‘what did they say?’ or something like that.”

Negative emotional responses. Expressions of anger, annoyance, and frustration were common reactions to communication difficulties experienced as a result of hearing loss. For example, Hope described how she reacts when her husband James doesn’t respond when she speaks to him: “First I quietly fume and then I will repeat it or say ‘you didn’t hear me, did you?’” It was not only the spouses of individuals with hearing loss that expressed these negative emotions. Continually having to remind others of one’s own hearing loss and to educate others on how to more effectively communicate with them also took its toll on the individual with hearing loss. As Liz describes, “So at times it is very frustrating when you’ve told people over and over and they still ignore it. They still will not come and face you and will not speak clearly. It is very annoying.”

Respondents with hearing loss and their spouses also reported negative emotional responses to specific coping strategies. For example, respondents with hearing loss expressed annoyance and frustration with having to ask for repeats. Similarly, spouses reported getting tired of the partner with hearing loss asking them to repeat. One participant, Cathy, reported not knowing how to control her tone when she is asked to repeat herself:

I think it causes minor problems because when he doesn’t hear me and then I repeat it, I repeat it in a tone he thinks I am mad . . . and that’s a little bit sad. I don’t know how else to shout at him if that’s what you call it because when I do repeat it I guess my voice has an angry tone and that’s probably my fault but that’s what happens.

Whether or not Cathy is angry about having to repeat herself, the manner in which she repeats herself conveys the message that she is. While her spouse Tony did not relate this specific example of communication difficulties during his interview, when asked about advice he would give the spouse of someone else who was experiencing hearing loss he was quick to say, “. . . don’t get upset with them” and “. . . don’t be too hasty and get mad.” This type of interaction likely contributed to Tony reporting that he sometimes feels disconnected from his spouse as a result of his hearing loss.

Coping Strategies

Four sub-themes representing coping strategies emerged during data analysis: normalizing, applying positive attitudes, developing specific techniques, and con-

sulting experts. All of the respondents were able to identify coping strategies that they had adopted in response to the problems they were experiencing due to hearing loss. These strategies were conveyed directly when answering general questions about coping strategies, but also indirectly when responding to other questions and through advice offered to others.

Normalizing. Most participants normalized the experience of hearing loss by framing it as a natural part of the aging process and described a tolerance for communication difficulties because of their older age. This framing was accompanied by downplaying or minimizing the implications of hearing loss. When asked how she reacted to her husband's hearing loss, Rose said with a laugh, "it's just kind of an accepted thing when you're over seventy, over sixty, whatever we were." Jenny said,

you know it just, it kinda goes with the territory at this age . . . we've reached an age where we are not shy about it (laughs). And you know it doesn't embarrass us as it might when we were much, much younger . . .

For some, aging was synonymous with hearing loss. In trying to remind her daughters that she has trouble hearing them Rose said she tells them, "you know I'm getting older," as if this statement would automatically trigger the understanding that they need to speak up so she can hear them.

Respondents felt that the large number of other older adults undergoing hearing loss made it easier to cope. Liz, who experienced her hearing loss in her late 30s, explained how it is easier to deal with her hearing loss now that she is older:

. . . when I was younger I would get very frustrated. Now I just sort of laugh about it. Because so many people, older people, are hard of hearing that a lot of us have this problem. So I have lots of company now and it's very nice.

As an older adult, Liz has peers experiencing the same difficulties, and while she had difficulty coping when she was younger, she now claims, "it's not a big deal at my age." Liz and others described an environment among older peers where hearing loss and its associated difficulties appeared to be tolerated and accepted as a normal part of life at older ages. In talking about peers with hearing loss who were not seeking hearing help, Bob said, "you don't know what to say. I mean you don't, you just back off. I do. I mean I'm not gonna push it. That's their decision."

The experience of hearing loss was also normalized by treating it as part of the regular challenges associated with marriage. Hearing loss was viewed as "just one more thing" to work on in the relationship, and ongoing support from spouses was frequently acknowledged. This was particularly evident among the four couples in our sample where both spouses had hearing loss. Jenny said of her relationship with her husband Bob: "We're both in this together . . . I feel we help each other out . . . I think we're pretty supportive of each other 'cause we both have about, I think, the same level of hearing loss." Rose expressed this senti-

ment in a slightly different way. When asked what impact hearing loss has had on her relationship with her husband Bill, she explained, “actually it hasn’t made that much difference ’cause neither one of us can hear. So we’re pretty tolerant of each other.”

Applying positive attitudes. Two attitudes were mentioned as helpful in coping with hearing loss: having a sense of humor and patience. When used as coping strategies, these attitudes served to buffer some of the negative impact of hearing loss. Rather than getting angry when misunderstandings occurred, participants sometimes reported finding humor in the situation. Rose explained,

You hear the wrong thing. Sometimes they are quite amusing. Just certain words will sound different to you when you’re in conversation. You have in mind what they said which is not all what they said. I find it amusing.

Responding to the challenges of hearing loss with a sense of humor provided an atmosphere more conducive to moving past these challenges in a positive way. Jenny said, “We laugh it off, and then try to work it out.” In addition to explicit statements about the importance of humor, many of the interviews were punctuated by laughter as respondents demonstrated the use of their sense of humor in talking about the difficulties associated with hearing loss.

Having a patient attitude was also valued in coping with hearing loss, because it was viewed as indicative of a supportive relationship. For some, being patient was how they provided support, or how they saw their spouse as being supportive of them. This could be why the absence of patience was noted to be problematic and why even those who tried to be patient felt they could do better. Cathy joked that a spouse of someone with hearing loss should “buy some patience in a bottle” and claimed she could become a millionaire overnight if she could find enough to bottle it and sell it. Having patience and keeping a sense of humor were both frequently offered as words of advice to other married individuals dealing with hearing loss. However, when advice to be patient was offered, it was usually directed at the spouse of the person with hearing loss. An exception to this was Jenny, who cautioned the individual with hearing loss to “just be patient . . . You get frustrated and you get annoyed with yourself, but if you don’t want to get cut out of things, you just really have to keep working at it.” Here we see recognition that dealing with the challenges of hearing loss is an ongoing process, and concern that if an individual with hearing loss is not steadfast in dealing with it, he or she might miss out.

Developing specific techniques. Participants reported developing specific techniques to help them avoid or contend with the challenges of hearing loss. Most of these techniques were directed towards improving communication and were used frequently. A summary of participant-developed communication strategies and recommendations can be found in Table 3. The most commonly used coping strategy for the person with hearing loss was asking for clarification or repeats, while for the spouse it was providing repeats. When asked what ad-

Table 3

Participant Developed Communication Strategies and Recommendations

Be patient
Keep a sense of humor
Reduce competing noises (e.g., television)
Use eye contact and read lips
Shave mustache off to help your spouse read lips
Face your spouse when talking to them
Avoid talking to your spouse from a separate room
Sit on the side of the ear that's better
Ask for clarification when you don't understand
Verify that you have been heard
Get hearing aids if you need them

vice they would offer to older adults experiencing hearing loss or their spouses, respondents felt it was important for others to understand that it might be necessary to repeat things more than once. For the most part the strategy of asking for and providing repeats was effective but, as previously noted, it was also viewed as exhausting and emotionally taxing at times. As a result some respondents reported giving up or not bothering to try, implying that the communication wasn't worth the effort. In addition, it is sometimes the case that only the last word in a sentence is missed, and not all information needs to be repeated. As Liz explained: "When we say that we want you to repeat just the last word in a sentence, don't give us the whole paragraph . . . because the last word in that paragraph will still drop in tone and you miss it!" Being specific when asking for clarification and paying attention to these specific requests when responding could make this strategy more effective and less burdensome in some cases. Verifying that a person with hearing loss has heard what was said was also noted to help communication.

The necessity of being deliberate and intentional when communicating was noted by our respondents, and failing to do so often contributed to the need for repeats. Jenny described how she and Bob communicate in a noisy and crowded environment: "We've gotten to the place where we say 'What?' and you know we both are aware that we might not hear, and so we will face each other and repeat it." In this example Jenny and Bob became more intentional in their communication by facing each other before repeating what was said, allowing the person with hearing loss to concentrate on what was being said and to incorporate visual cues. The partner of a person with hearing loss also plays an important role in facilitating lip reading. A number of tips about how to do this were offered, including not saying anything until you are facing each other, shaving off facial hair around the mouth, enunciating more clearly, moving the lips more, and trying to separate words and sentences.

Tom emphasized being intentional when communicating by saying:

If you're talking to them, talk to them, not to the television set or the kitchen stove or kitchen sink or go into the bathroom and turn the hair drier on and start talking to your spouse . . . More or less talk to them, not other things.

In addition to facing your partner and eliminating competing noises, another technique used to increase the chances of hearing or being heard was to reduce the physical distance between communication partners. Sometimes this involved moving to be in the same general location, such as the same room when at home, and other times this meant getting very close, particularly when respondents were out together in noisy environments. Tony said, "I just have her talk in my ear." Participants reported changing seats or places to accommodate the person with the hearing loss, particularly if the hearing in a particular ear was perceived to be better than the other. For spouses of individuals with hearing loss, speaking more loudly and slowly were also techniques that were used. Rose explained, "you know you tend to yell at 'em if they don't hear you after the third or fourth time." However, respondents varied in how often they used any of these techniques, and in whether they used them proactively or only in response to communication breakdowns.

Although some couples reported no longer being able to watch television or listen to the radio together because of differences in volume preferences, two couples had successfully overcome these difficulties through the use of technology. Jill explained, "I have those TV ears so I can hear whatever I want to hear and he can hear whatever he wants to hear." Liz uses a similar strategy for the radio: her husband sets the volume at any level he wants and she uses a separate portable radio with headphones so she can make it loud enough for her to hear. This strategy, however, does not work for everyone. Hope described buying ear buds for her husband but he refused to wear them, claiming they didn't work and that he didn't like them.

Consulting experts. Most respondents recommended that individuals experiencing hearing loss admit there is a problem, get their hearing tested, monitor the situation, and get a hearing aid. Hope said, "be aware of it [the hearing loss] and that it probably won't improve, and if it doesn't don't be afraid to go for assistance." However, for most of the respondents in this study, getting tested meant participating in a hearing-related research program or getting a basic screening at a local health fair. Few had actually gotten their hearing tested by a specialist for the purpose of treatment or gone forward with getting a hearing aid. Except for the three who owned hearing aids, none of the participants reported utilizing aural rehabilitation services. Most participants did not know what aural rehabilitation services were, or were not aware of the existence of services beyond getting a hearing aid. When asked what sort of resources would make it easier to cope with hearing loss Jill explained: "I don't know what's out there, so I don't know what to wish for."

Even though respondents recommended that others should get a hearing aid, most had not done so themselves. Of the three participants with hearing loss who reported using hearing aids (see Table 1), two reported problems or dissatisfaction with the instruments and one almost never wore his as a result. Tony's wife reported that he had difficulty hearing even with the hearing aids, and Tom described how wearing his hearing aid was "just like walking around with something poked into your ear." Denial, skepticism, and cost were barriers to adoption for those without hearing aids. Only one participant mentioned vanity as a potential reason why his wife did not yet have a hearing aid. Overall, most participants felt that things were not bad enough yet for them to need a hearing aid, although their spouses (and their audiograms) did not necessarily concur. Rose put it this way: "It isn't to the point where I don't hear yet, but I'm just aware that it's not what it should be."

In addition to not thinking they needed hearing aids yet, participants reported learning about problems with hearing aids from their friends who were using them, leading them to believe that hearing aids might not be helpful. For example, Jenny, who has moderate hearing loss, said she is reluctant to get a hearing aid. She described how many of her friends have hearing aids but "they aren't really very effective for them, and they're disappointed in them, and I guess I'm hoping that there will be more strides in improving them before I take that step." She said she is not quite ready for hearing aids but imagines that at some point she will get them, if she can be "assured that they will be helpful."

There was also suspicion expressed about the hearing aid industry and the high cost involved. Even Tom, who has hearing aids, recommended getting a second opinion just to be safe. He said:

Make sure that um, um that they don't get somebody to test their hearing that is after the money, and push something off onto them. Um, I would recommend to at least get a couple of opinions. Even if you go to buy hearing aids, get the second opinion of what type you should get . . . Make sure that you get the right one for you, not for the person that's testing you.

Although many participants felt that hearing aids were too expensive, Bill, the only participant who was satisfied with his hearing aids, cautioned, "I know there is cheaper available (laughing). I know a lot of people got cheap ones sitting on their dresser." His wife reported that he spent about \$5,000 on his most recent set of hearing aids. The high cost of hearing aids acted as a barrier to receiving treatment for some, and to receiving adequate treatment for others. Frustration was expressed that Medicare doesn't cover hearing aids. Liz complained, "they do fine if you're blind, and there is tax breaks if you're blind, but there is very little or nothing if you are deaf or you need hearing aids. You get no financial aid whatsoever." Cathy confessed that even though her husband's hearing aids were not working effectively for him he was "not willing to put out the money for the top of the line."

Taking Responsibility

Analysis of the data looking at couples rather than individual participants as the units of analysis revealed an imbalance of responsibility for coping with hearing loss in five of the seven couples that fell along gender lines. This was observed in two areas: pushing for testing or treatment, and implementing daily coping strategies.

Pushing for testing or treatment. Wives were often the ones to encourage their husbands to acknowledge the hearing loss and seek testing or treatment. Bob even offered as advice to spouses of individuals with hearing loss “help them to get there, to take the test,” indicating that some husbands are receptive to this kind of involvement by their wives. Cathy was successful in her efforts to encourage her husband Tony to get a hearing aid, but she did have to “holler at him to do something about it.” Hope had been working on getting a similar outcome with her husband. She responded to James’ hearing loss by recommending that he get a hearing test. Now that he has had a hearing test she wants him to get a hearing aid. In addition to showing her husband newspaper advertisements for hearing aids she told us: “I also quoted him about what he used to say about a very close friend: ‘I wonder when Joe is gonna get a hearing aid?’ And I said ‘James, I think people might be saying that about you now.’” Hope joked that James thinks she is a nag because of this behavior, but James described it as supportive and couldn’t think of anything his wife did that was not useful for him.

For the women with hearing loss in our study, there were no similar occurrences of husbands being the motivating force behind their testing or treatment. When asked about what resources he would like to have to better meet the needs of his wife, Matt responded by saying “right now I can’t think of anything really. It’s a matter of her problem. If she ever goes to a hearing aid then that would be a help.” Even though he thought a hearing aid would be helpful for his wife, Matt didn’t appear to see an active role for himself in that decision the way many of the wives in our study did.

Implementing daily coping strategies. A more subtle gender difference also emerged from the interviews pertaining to which partner was responsible for implementing daily coping strategies. While Liz complained that “the one with the loss has to go the extra mile,” a comparison of the responses of couples revealed that it is often the wife that has to go the extra mile. For example, Liz and David both have hearing loss and are married to a spouse without hearing loss:

Liz: I have to get up out of my chair and go where he is and say “what did you say?”

David: I think she ought to be talking to me when she’s in the same room instead of two rooms away.

Both Liz and David described a coping strategy of moving physically closer to the person who is communicating with them, but in both cases it is the wife who

is responsible for physically moving closer to the husband. David also described how his wife Terry frequently directs him to do things to make it easier for him to hear her, such as turning the TV down or having them sit closer together.

This gendered pattern in coping responsibility was also evident in couples where both partners had some degree of hearing loss. For example, Tony and Cathy are married to each other, and both have hearing loss. Cathy is often the one who will walk to wherever Tony is if they are having trouble communicating in separate rooms. In this couple, Cathy is also the one who facilitates communication between her husband and other members of the family. When asked about difficulties communicating with family members who do not live in the same household, Tony replied: "Oh they kinda get used to it and ask mom what to say or what I said." Jill also reports that in her relationship she is the one who has to physically move to facilitate communication with her husband Tom. When asked about communication difficulties Tom admits, "I don't hear all that she's saying and I don't really think it's all my fault." He complained that she mumbles all the time and indicated that if she wanted to be heard she needed to take certain actions, such as raising her voice and being close enough to be heard.

Even though none of the wives in this study wore hearing aids themselves, it was not uncommon for the wives of husbands who have hearing aids to be involved in facilitating their daily use. Two out of the three wives of husbands who have hearing aids reported having to encourage her husband to wear his hearing aid(s), to get new batteries, or to get them fixed if necessary. Cathy said that even though she doesn't mind having to remind Tony to change the batteries in his hearing aid, she thinks he ought to remember himself.

DISCUSSION

In contrast with previous studies that have found hearing loss contributes to relationship strain and increases the probability of separation or divorce (Hallam et al., 2008; Jones et al., 1987; Thomas, 1984), the couples in this study enjoyed high levels of marital satisfaction. This is consistent, however, with other research focused on older adults (Scarinci et al., 2008; Yorgason et al., 2007). Overall, our findings demonstrate that the marital relationships of older couples can adapt in response to hearing loss, and when challenges experienced as a result of hearing loss are not completely remedied by coping strategies, these couples were capable of accommodating the difference. The high levels of marital satisfaction were present despite the presence of communication problems, changes in shared activities, and negative emotions related to hearing loss. Respondents acknowledged these specific challenges but did not connect these problems with having an impact on their marital relationship. As a result, we recommend that future assessments of the impact of hearing loss in later life avoid global measures of relationship quality or satisfaction as potential indicators and focus on specific problems or irritations that may be occurring.

There are several possible reasons for the high levels of marital satisfaction and the apparent imperviousness of the marital relationship to the impact of hearing loss reported by the participants in this study. Relationships in later life may be less affected by hearing loss than those of younger adults because hearing loss is viewed as a natural part of the aging process. The mutual impairment of both spouses in many of our couples may also have been a factor. The shared experience of hearing loss may be less damaging to the partnership because it allows them to depend on each other and share the burdens of being both a person with hearing loss and the partner of a person with hearing loss. In addition, although at least one partner in each couple had some hearing loss, most losses were in the mild-to-moderate hearing loss range. It may be that older couples are resilient in dealing with hearing loss in this range, but would have been less so if the hearing loss were severe or profound. Alternatively, couples that have not successfully adapted to hearing loss may have been less likely to participate in the study. Furthermore, since only intact couples were recruited, couples whose relationships ended as a result of hearing-related or -exacerbated problems were not represented here.

The frequency of verbally framing hearing loss as a natural part of the aging process is an interesting finding. Attribution theory proposes that perceived causes of behavior and perceived responsibility can accentuate or attenuate the negative consequences of behavior (Anderson & Noble, 2005; Piercy & Piercy, 2002). Attributing hearing loss to aging may have led to more favorable evaluations of experiences and greater acceptance than has been reported in previous studies of individuals experiencing hearing loss in mid-life. Noble (1983) suggested that the normal world should be expanded to incorporate individuals with hearing loss. For the older couples in this study, hearing loss is seen as a normal part of life, at least the lives of older adults. While this acceptance reduces the stigma of hearing difficulties, it also led many respondents to accept not being able to hear well and become complacent with sub-optimal hearing. This tolerance of hearing loss and associated communication difficulties may be a barrier to pursuing treatment, leading older adults to delay or even forgo any form of treatment or rehabilitation.

All participants in this study encountered difficulties as a result of hearing loss in themselves and/or their spouse, although to varying degrees. The problems that they identified, such as miscommunication, forgone communication, changes in shared activities, anger, and frustration, have been reported in prior studies (e.g., Heine & Browning, 2004; Heine, Erber, Osborn, & Browning, 2002; Lormore & Stephens, 1994; Stephens et al., 1995). As was reported in previous research (Yorgason et al., 2007), participants in this study used humor along with various communication strategies to help them cope with their hearing loss and/or that of their spouse. Throughout all the interviews, participants answered difficult questions using a sense of humor. Despite not having received any aural re-

habilitation services, the couples in this study independently developed very similar strategies to cope with hearing loss. Asking for clarification and repetition were the most commonly mentioned techniques for coping with the hearing loss. These strategies, however, were also the most likely to cause fatigue, annoyance, frustration, and anger for both the individual with hearing loss and his or her spouse. Participation in an aural rehabilitation program could help these couples expand their repertoire of communication repair strategies and learn how to reduce their reliance on such repair strategies by proactively preventing communication breakdown.

Most couples in this study exhibited a gender imbalance in responsibility for coping with hearing loss. Both women with hearing loss and women who were married to a partner with a hearing loss demonstrated greater responsibility than their husbands for instigating testing and treatment for hearing loss as well as for maintaining communication with their partners. Scarinci et al. (2008) noted a similar pattern in their Australian study of five wives and five husbands with normal hearing who had a spouse with hearing loss. These findings are consistent with research that demonstrates married men are subject to more control of their health behaviors than married women, and that women are more likely than men to attempt to control the health behaviors of others (Umberson, 1992). If we view assisting a spouse having difficulties due to hearing loss as caregiving (Yorgason et al., 2007), then these findings are also consistent with broader research that finds women are more likely to be socialized into a caregiving role, resulting in women making up the majority of informal caregivers (Brewer, 2001).

This study clearly demonstrates the need to educate older adults and their spouses about aural rehabilitation services and how such services can benefit both partners. Our findings support previous recommendations to involve spouses in aural rehabilitation and treatment (Hallberg, 1999; Preminger, 2003; Scarinci et al., 2008). The health monitoring and supportive behaviors of spouses should be utilized to promote hearing assessments and the adoption of treatment strategies. Most consultations about hearing loss are a result of prompting by family members (O'Mahoney, Stephens, & Cadge, 1996), and there is no indication that this type of reason for referral impedes the outcomes of aural rehabilitation (Wilson & Stephens, 2003). Education campaigns about hearing loss and the benefits of aural rehabilitation targeting spouses could be used to increase the number of older adults with hearing loss presenting for treatment. Furthermore, continued involvement of spouses in the treatment process can improve outcomes for both partners. Preminger (2003) reported that adults with hearing loss who attended an aural rehabilitation program with their significant others showed more frequent use of communication strategies and a reduction in the negative consequences of hearing loss. The involvement of both spouses in aural rehabilitation could also promote greater equity in the responsibility for coping as both partners learn and practice techniques for facilitating communication.

Many of the participants in this study were not enjoying the benefits of hearing aids for a variety of reasons, including negative perceptions about the effectiveness of hearing aids, concerns that a hearing aid will cause more problems than it will solve, and financial considerations. Several participants believed that they were not yet at the point of needing a hearing aid even though their audiogram suggested that they would benefit from one, and some of their spouses felt that they needed one. Two out of the three hearing aid users in this study were not satisfied with them and could have benefited from further services. These findings highlight a lack of awareness and accessibility of aural rehabilitation services. Public awareness campaigns to educate older adults about the benefits of aural rehabilitation are needed, as well as programs that increase availability and access. In addition, while many studies point to stigma as a barrier to help-seeking and hearing aid use (e.g., Southall, Gagné, & Jennings, 2010; Wallhagen, 2009) our study demonstrates that perceptions about the effectiveness of hearing aids and complacency with sub-optimal hearing among older adults also need to be addressed.

While this present study provides valuable insights into the impact of hearing loss in older married adults and their coping strategies, the results must be interpreted with a few limitations in mind. The first limitation is the small, non-representative sample. While the results represent the experiences of the older couples in our study, they may not represent the experiences of all older couples dealing with hearing loss. Thus, it is unclear how well the findings can be generalized. Second, participants were recruited from an existing research participant pool. Since these are couples who volunteered for hearing-related research, they may be more sensitive to issues surrounding hearing loss and be better adjusted than the general public. Finally, our results provide only a snapshot of these couples at a single point in time and are unable to tell us anything about the process of adjustment over time. Recruiting older adults without hearing loss and following them over time would reveal how couples adjust to hearing loss at various stages and determine factors that identify couples that successfully cope with hearing loss. Future research should also consider a comparative study on the experiences of older and younger adults to explore the role of age norms and expectations in the consequences of hearing loss and how they contribute to adaptation, acceptance, and treatment. Additional consideration should also be given to investigating the prevalence, experience, and implications of mutual hearing impairment in older couples, as much of the research has been focused on individuals with hearing loss and their non-hearing-impaired partners.

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