

Differences in Perceived Hearing Handicap as Reported by Listeners With Hearing Loss and Their Significant Others

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The purpose of this study was to examine the perception of hearing handicap by 25 adults with hearing impairment (HIs) and their significant others (SOs) in order to explain discrepancies among the published findings of Newman and Weinstein (1986, 1988) and Chmiel and Jerger (1993, 1996). In the Chmiel and Jerger studies, significantly greater handicap was reported by the SOs compared to the HIs, while in the present study and in the Newman and Weinstein studies, significantly greater handicap was reported by the HIs. Possible reasons for the discrepancies across studies were explored, including participant selection, severity of hearing impairment, slope of the audiogram, and degree of HI-reported handicap. Negative findings ruled out all but the latter as a likely source of discrepancy between HIs and SOs. HIs who report greater degrees of handicap may experience greater handicap than what is perceived by their SOs. HIs who report lesser degrees of handicap may have either a similar perception of the degree of the handicap as their SOs, as shown in the present study, or have less handicap than that perceived by their SOs, as shown in the studies of Chmiel and Jerger. Future research is necessary in order to confirm or dispute this hypothesis. If this hypothesis is true it has implications for HI and SO counseling regarding participation in audiologic rehabilitation.

Hearing handicap has been defined as the disadvantage imposed by a hearing impairment on a person's communicative performance in the activities of daily liv-

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ing (American Speech-Language-Hearing Association [ASHA] Task Force on the Definition of Hearing Handicap, 1981). Although hearing impairment in terms of hearing thresholds and/or speech recognition scores is correlated with hearing handicap, it does not explain the variability found in hearing handicap for adults with similar hearing losses (Weinstein & Ventry, 1983). Instead, hearing handicap is an individual reaction to hearing loss that is based on a number of interrelated factors (ASHA, 1981).

Hearing handicap is typically measured with a paper and pencil questionnaire. Two scales in common use are the Hearing Handicap Inventory for the Elderly and the Hearing Handicap Inventory for Adults (HHIE/A; Newman, Weinstein, Jacobson, & Hug, 1991; Ventry & Weinstein, 1982). These are 25-item scales divided into two subscales: Social function and Emotional function (as related to hearing loss). The HHIE/A has been used to measure the reduction of hearing handicap experienced by adults with hearing loss as the result of hearing aid use (Malinoff & Weinstein, 1989; Newman & Weinstein, 1988) and as the result of group audiologic rehabilitation classes (Abrams, Hnath-Chisolm, Guerreiro, & Ritterman, 1992; Preminger, 2003).

Not only can hearing loss result in a hearing handicap for an individual with hearing loss, it can create communication difficulties for significant others (SOs; Hallberg, 1999; Héту, Jones, & Getty, 1993; Héту, Lalande, & Getty, 1987; Stephens, France, & Lormore, 1995). The handicap experienced by SOs has been measured through in-depth interviews (Hallberg, 1999; Héту et al., 1993) and questionnaires (Héту et al., 1987; Stephens et al., 1995).

A commonly used scale which measures the SO's perceptions of the partner's hearing handicap is the HHIE-SO (Newman & Weinstein, 1988). Questions from the HHIE are changed, for example, from "Does a hearing problem make you irritable" to "Does a hearing problem make your significant other irritable" on the HHIE-SO.

Investigators have used the HHIE and the HHIE-SO as tools to compare perception of hearing handicap and hearing aid benefit reported by individuals with hearing impairment (HIs) to the perceptions of their SOs (Chmiel & Jerger, 1993, 1996; Newman & Weinstein, 1986, 1988). There have been discrepancies among the findings of these studies. The Newman and Weinstein studies consistently found that HIs report their hearing handicap to be significantly greater than do their SOs. Chmiel and Jerger found the opposite. They found that SOs report greater perceived handicap than the handicap reported by their HIs. The participants in both studies were similar in age and degree of hearing loss.

In the present study, perception of hearing handicap was measured as reported by 25 HIs and their SOs. The purpose of this study was to explore alternative explanations for the previously published discrepant findings regarding the agreement between HIs and SOs in reporting the degree of the HIs' hearing handicap.

METHOD

Participants

HIs were patients of the private audiology practice associated with the University of Louisville School of Medicine, and were recruited for this study through an offer to participate in group audiologic rehabilitation classes. All adult patients who had purchased hearing aids within the past 2 years were invited to participate if they had at least 6 months of hearing aid experience and an SO whom they saw on a daily basis and who also agreed to participate. The HIs were fairly evenly distributed between male and female (see Table 1). They ranged in age from 51 through 84 years, with the majority of subjects ($n = 19$) above age 65. Their hearing impairments ranged from mild to severe. All HIs were experienced hearing aid users.

In order to participate, HIs were also required to score greater than 30 on the HHIE/A. HIs also participated in a separate experiment, which involved the evaluation of the effectiveness of group audiologic rehabilitation classes (Preminger, 2003). This minimum score was established so that all HIs had the potential to demonstrate a significant improvement in their HHIE/A scores. The SOs were not required to have a minimum score on the HHIE/A-SO.

Procedures

Hearing handicap was measured with the HHIE (Ventry & Weinstein, 1982) for HIs 65 years of age and older, and with the HHIA (Newman et al., 1991) for those under 65. SOs 65 years of age and older were given the HHIE-SO (Newman & Weinstein, 1988). The HHIA was adapted to become the HHIA-SO for the current experiment (similar to the adapted HHIE-SO by Newman & Weinstein) for those SOs with an HI younger than 65. The HHIE/A is a 25-item scale composed of statements which assess attitudes and emotional response to hearing loss and the perceived effects of hearing loss in different listening situations. Respondents can respond *yes* (4 points), *sometimes* (2 points), or *no* (0 points) to each statement. Scores can range from 0, suggesting no perceived hearing handicap, to 100, suggesting a significant perceived handicap (Ventry & Weinstein, 1982). A score of 18 or greater is suggestive of a perceived handicap (Weinstein & Ventry, 1983).

All scales were completed by the HIs and their SOs in the presence of an audiologist, or student in a Doctor of Audiology program. The audiologist or student was available to answer any questions and to determine that the scale was filled out correctly and completely.

RESULTS AND DISCUSSION

In the present experiment hearing handicap was greater for respondents with hearing impairment than was perceived by their significant others. This is shown

Table 1
Demographic Information for Participants With Hearing Loss

| | Present study | N & W 1986 | N & W 1988 | C & J 1993 | C & J 1996 |
|--------------|--|-------------------|-------------------|---|---|
| N | 25 | 30 | 18 | 42 | 56 |
| Percent male | 52 | 100 | 100 | 71 | 54 |
| Age in years | | | | | |
| Mean | 71.2 | 71.7 | 70.5 | 70.4 | 72.1 |
| (Range) | (51-84) | (65-90) | (66-84) | (60-83) | (60-85) |
| PTA | Better ear | Better ear | Better ear | Better ear | Right ear |
| Mean (SD) | PTA1 ^a : 47.4 (15.1) PTA2 ^b : 55.9 (13.4) | PTA1: 42.8 (18.6) | PTA1: 43.1 (20.5) | PTA2: 40.14 | PTA1: 39.9 PTA2: 50.4 |
| HA use | All | 25% | None | None | Unknown ^c |
| SO | Spouses 72% Adult child 12% Friend/neighbor 16% | Wives 100% | Wives 100% | Spouses 74% Adult child 14% Friend/sister 12% | Spouses 70% Adult child 12% Friend/other relative 18% |
| HHIE/A | | | | | |
| Mean (range) | 50.9 (16.4) | 62.6 (19.4) | 67.1 (17.9) | 27.19 (13.9) | 29 |

Note. The data in column 3 are from "Judgments of Perceived Hearing Handicap by Hearing-Impaired Elderly Men and Their Spouses," by C.W. Newman and B.E. Weinstein, 1986, *Journal of the Academy of Rehabilitative Audiology*, 19, p. 112. Copyright 1986 by the Academy of Rehabilitative Audiology. Adapted with permission from the authors. The data in column 4 are from "The Hearing Handicap Inventory for the Elderly as a Measure of Hearing Aid Benefit," by C.W. Newman and B.E. Weinstein, 1988, *Ear and Hearing*, 9, p. 83. Copyright 1988. Adapted with permission from the authors. The data in column 5 are from "Some Factors Affecting Assessment of Hearing Handicap in the Elderly," by R. Chmiel and J. Jerger, 1993, *Journal of the American Academy of Audiology*, 4, p. 252. Copyright 1993. Adapted with permission from the authors. The data in column 6 are from "Hearing Aid Use, Central Auditory Disorder, and Hearing Handicap in Elderly Persons," by R. Chmiel and J. Jerger, 1996, *Journal of the American Academy of Audiology*, 7, p. 197-198. Copyright 1996. Adapted with permission from the authors.

^aPTA1 = average of 500, 1000, and 2000 Hz. ^bPTA2 = average of 1000, 2000, and 3000 Hz. ^cHearing aid users (26 out of 89 total subjects) may or may not have been part of the group of 56 who provided HHIE data; therefore, 0-46% of the HHIE respondents may have been experienced hearing aid users.

in the left-most columns of Figure 1. The average score on the HHIE/A for the HIs was 50.9 ($SD=16.4$) and the average scores given by the SOs was 38.4 ($SD=23.4$). These results were significantly different ($t=2.241$, $df=45$, $p<.05$), in agreement with the findings of Newman and Weinstein (1986, 1988) who also

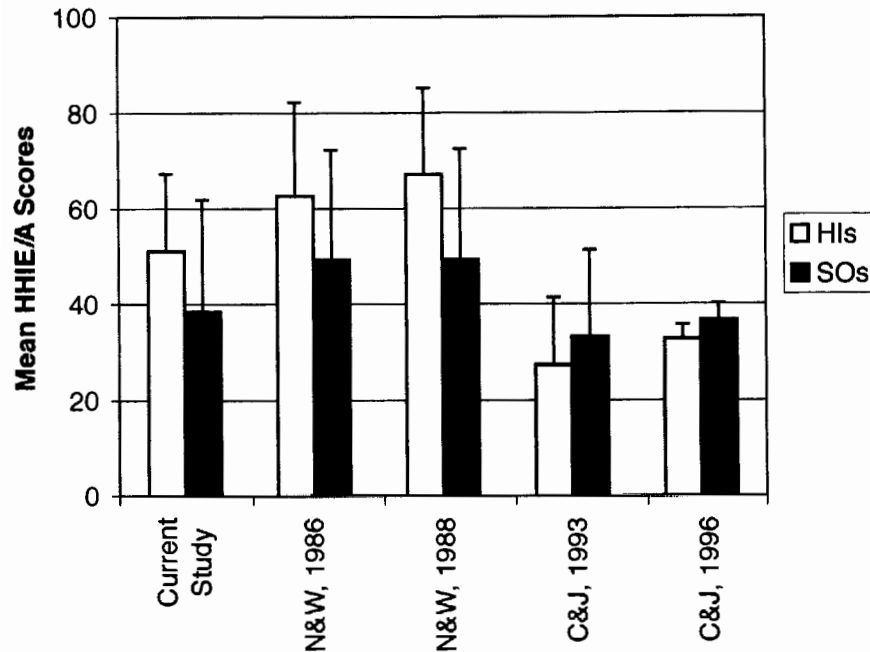


Figure 1. Mean total Hearing Handicap Inventory for the Elderly and the Hearing Handicap Inventory for Adults (HHIE/A) scores. HI=Hearing impaired. SO=Significant other. N&W=Newman and Weinstein. C&J=Chmiel and Jerger. All HI-SO mean differences are significant ($p<.05$). The data shown for "N&W, 1986" are from "Judgments of Perceived Hearing Handicap by Hearing-Impaired Elderly Men and Their Spouses," by C.W. Newman and B.E. Weinstein, 1986, *Journal of the Academy of Rehabilitative Audiology*, 19, p. 112. Copyright 1986 by the Academy of Rehabilitative Audiology. Used with permission from the authors. The data shown for "N&W, 1988" are from "The Hearing Handicap Inventory for the Elderly as a Measure of Hearing Aid Benefit," by C.W. Newman and B.E. Weinstein, 1988, *Ear and Hearing*, 9, p. 83. Copyright 1988. Used with permission from the authors. The data shown for "C&J, 1993" are from "Some Factors Affecting Assessment of Hearing Handicap in the Elderly," by R. Chmiel and J. Jerger, 1993, *Journal of the American Academy of Audiology*, 4, p. 252. Copyright 1993. Used with permission from the authors. The data shown for "C&J, 1996" are from "Hearing Aid Use, Central Auditory Disorder, and Hearing Handicap in Elderly Persons," by R. Chmiel and J. Jerger, 1996, *Journal of the American Academy of Audiology*, 7, p. 198. Copyright 1996. Used with permission from the authors.

measured greater hearing handicap perceived by HIs as compared to their SOs. These results are contrary to the findings of Chmiel and Jerger (1993, 1996).

Comparison of Participants Across Studies

The purpose of this paper was to analyze the difference between HI and SO scores and to compare the results with other published data. Before the hearing handicap scores can be compared, it is important to first compare the characteristics of the participants across all studies. A comparative summary appears in Table 1. Although the Newman and Weinstein (1986, 1988) studies had only male HIs, the Chmiel and Jerger (1993, 1996) studies and the present study had a mix of both males and females with hearing loss. The mean age of the HIs is quite similar across the five studies. The youngest HIs were 65 in the Newman and Weinstein studies and 60 in the Chmiel and Jerger studies. In the present study only 3 HIs were under the age of 60. These younger HIs were included because their lifestyles were similar to the HIs in the present study who were over the age of 60; the majority of HIs in the present study were working full-time or part-time and/or were involved in many activities outside of their homes.

It is difficult to compare average hearing loss across the studies because this was reported in different ways. Most studies reported either the average of 500, 1000, and 2000 Hz or the average of 1000, 2000, and 4000 Hz for the better ear. It appears that the average hearing loss was about 5 to 8 dB poorer for the HIs in the present study; this is consistent with the fact that all of the HIs in the present study were experienced hearing aid users. Two of the other four studies also had HIs who were experienced hearing aid users.

In the Newman and Weinstein (1986, 1988) articles all SOs were wives of male HIs with hearing loss. In the present study and in the Chmiel and Jerger (1993, 1996) studies, the majority of SOs were spouses and the remainder were adult children, close friends, or neighbors.

Hearing aid use was not consistent across the five studies. Data from the present study were collected from experienced (at least 6 months) hearing aid users and their SOs. A percentage of the HIs were experienced hearing aid users in the Newman and Weinstein (1986) and the Chmiel and Jerger (1996) studies. The HIs in the remaining two studies (Newman & Weinstein, 1988; Chmiel & Jerger, 1996) were all being evaluated for hearing aid use, but were not hearing aid users when the hearing handicap scales were completed. The majority of HIs in the comparison studies were not experienced hearing aid users at the time of the HHIE/A evaluation, while all of the HIs in the present study were experienced users.

As illustrated in the bottom row of Table 1, the mean HHIE/A scores for the HIs were remarkably different across studies. The mean HHIE scores were highest in the Newman and Weinstein (1986, 1988) studies, lowest in the Chmiel and Jerger (1993, 1996) studies, and intermediate in the present study. It should be

Table 2
Hearing Impaired Participant (HI) Demographic Characteristics and Their Relation to Hearing Handicap Inventory for the Elderly and the Hearing Handicap Inventory for Adults (HHIE/A) Scores for the HIs

| Participant characteristics | HHIE/A group means (differences between means) |
|--|--|
| Gender Male: $n = 13$, female: $n = 12$ | Male: 48.8, female: 58.2 ($t = .662$, $df = 23$, $p = .515$) |
| Significant other Spouse: $n = 18$, other: $n = 7$ | Spouse: 52.6, other: 45.3 ($t = .948$, $df = 23$, $p = .353$) |
| Participant characteristics | Correlation with HHIE/A scores |
| Age in years | $r = -.052$, $p = .804$ |
| Mean PTA in dB HL | $r = .453^*$, $p = .023$ |
| Hearing aid use in years | $r = .248$, $p = .231$ |

* $p < .05$

recalled that only HIs with scores greater than 30 were invited to participate in the present study.

Demographics and Handicap Scores in the Current Study

As shown in Table 1, the HIs in the present study were a diverse group of adults with hearing loss and were not demographically similar to all of the HIs in the other studies shown in Table 1. There is always the concern that subject characteristics may confound the findings and limit generalizability. The demographic characteristics in Table 1 were investigated to determine whether each characteristic was significantly related to HHIE/A scores for the HI. The results are shown in Table 2.

Gender is a dichotomous variable, so HHIE/A scores between males and females were compared using a t test. SO type was also analyzed in a dichotomous manner by comparing the mean HHIE/A score for the 18 HIs whose spouses participated, to the mean score for the 7 HIs who had adult children or close friends participating as their SO. The mean HHIE/A scores were not significantly different in either comparison, suggesting that HI gender and SO type did not influence HI HHIE/A scores in the current study.

The remaining variables are continuous, so correlations between each variable and HHIE/A scores were calculated. Examination of Table 2 shows only one significant finding, the correlation between PTA in dB HL and HHIE/A scores. This is to be expected because, in general, HHIE/A scores increase as the degree of hearing loss increases (Weinstein & Ventry, 1983). Correlations for the remaining factors of age and years of hearing aid use were not significant for the HIs. The HI group in the current study included some younger HIs than in the com-

parison studies. In addition, the HI group in the current study had hearing aid experience while the majority of the HIs in the comparison studies did not. Because HI age and HI years of hearing aid use were not significantly correlated with HI HHIE/A scores, this suggests that these demographic characteristics did not influence the measured HHIE/A scores.

HI Versus SO Handicap Scores

Analysis of group mean differences. Across all data represented in Figure 1, there were significant differences between perceived handicap as reported by HIs and by SOs; however, the significant differences were not all in the same direction. The results cannot be compared statistically across studies, because only the means and standard deviations are available for the comparative data.

Exploration of Reasons for Discrepant Findings

Subject selection. Three of the studies examined here reported significantly greater handicap perceived by HIs, while two studies reported significantly greater perceived by the SOs. Chmiel and Jerger (1993, 1996) commented that the differences in results across studies could be due to where the subject populations were gathered. The Newman and Weinstein (1986, 1988) HIs were all male veterans, most of whom did not yet wear hearing aids. The Chmiel and Jerger HIs were recruited from community centers. Chmiel and Jerger surmised that the Newman and Weinstein HIs had incentive to exaggerate their degree of hearing handicap in order to procure no-cost hearing aids through the VA system. The SOs in the Newman and Weinstein studies had no incentive to exaggerate their judgments of hearing handicap. This could explain why the HIs had greater reported handicap than perceived by their SOs.

The present study also found greater reported handicap by HIs compared to their SOs. The HIs in the present study were all patients from a private practice associated with the University of Louisville School of Medicine, and all HIs were experienced hearing aid users. There was no apparent need to exaggerate handicap in this group, yet there was considerable overlap in the extent of hearing handicap reported by these private practice patients compared to the VA group. Therefore, the subject recruitment mechanism is insufficient to explain the differences measured across studies.

Severity of hearing loss. Newman and Weinstein (1988) investigated degree of hearing loss to explain why HHIE scores were significantly different between their HIs and SOs. They calculated correlations separately for HIs with better ear PTAs less than 40 dB HL and for those with PTAs greater than 40 dB HL. They measured a non-significant correlation ($r = .14$) between HI and SO scores for their 11 HIs with PTAs less than 40 dB HL, and a non-significant but greater correlation ($r = .74$) for their 7 HIs with PTAs greater than 40 dB HL. Despite the non-significant findings, it is possible that degree of hearing loss may influence

the agreement between HIs and SOs.

With degree of hearing loss as a factor in mind, the data from the current study were examined. The mean binaural PTA was approximately 55 dB HL. (The PTA reported in Table 1 is the better ear PTA.) The HHIE/A mean scores for HIs and SOs were examined separately for the group of HIs with binaural PTAs less than 55 dB HL, and for the group with binaural PTAs greater than 55 dB HL. The mean HHIE/A scores for these two groups are shown in Figure 2. While the mean HHIE/A scores are greater for the HIs as compared to their SOs, regardless of PTA group, the differences between HI scores and SO scores are not significant in either group (PTA < 55 dB HL group: $t = 1.92$, $df = 22$, $p > .05$; PTA > 55 dB HL group: $t = 1.52$, $df = 24$, $p > .10$, with Bonferroni adjustments). Examination of the data in Figure 2 does show a tendency for greater handicap scores, from both HIs and SOs, with greater HI hearing loss (this is also shown in the second to last row of Table 2). It seems unlikely, therefore, that severity of hearing loss can adequately explain the different HI-SO patterns.

Slope of the audiogram. Another patient characteristic that was studied previously was slope of hearing loss. Chmiel and Jerger (1993) reported better agreement between HIs and SOs for HIs who had more gradual hearing losses rather than steep or very steep losses. Interestingly, HIs in the gradual slope group reported greater handicap than their SOs, and HIs in the steep slope group reported

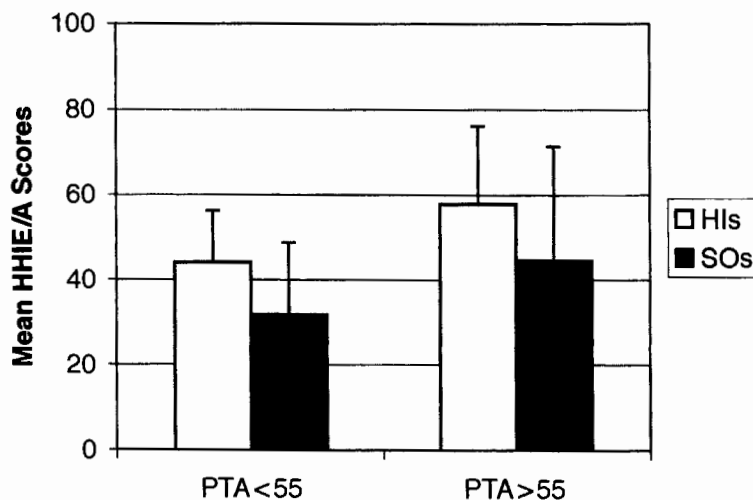


Figure 2. Mean total Hearing Handicap Inventory for the Elderly and the Hearing Handicap Inventory for Adults (HHIE/A) scores for adults with hearing impairment (HIs) and their significant others (SOs). Bars on the left show data for HIs with hearing losses less than 55 dB HL and their SOs. Bars on the right show data for HIs with hearing losses greater than 55 dB HL and their SOs.

less handicap than their SOs. Although these differences were not significant, the results for their HIs with gradual losses were the only results that agreed with the HI-SO pattern shown in the present paper and in the Newman and Weinstein (1986, 1988) papers).

With slope of hearing loss in mind, HIs in the present study were separated into two groups. Those with average octave-threshold differences less than 25 dB were classified as flat or gradual and those with average octave-threshold differences of 25 dB or greater were classified as sloping. With the participants divided in this manner, the mean HHIE/A scores for HIs and SOs are shown in Figure 3. While the mean HHIE/A scores are greater for the HIs as compared to their SOs in each group, the differences are not significant with the Bonferonni correction applied (flat/gradual group: $t=1.316$, $df=26$, $p>.10$; sloping group: $t=2.14$, $df=20$, $p=.045$). It seems unlikely that audiogram slope can explain the discrepant results across studies.

Degree of perceived handicap. There is an alternate explanation for the discrepancy of results across the five studies that has not been discussed previously. The pattern of HI and SO scores may be associated with the degree of handicap experienced by the HI. Figure 1 shows large differences in HHIE/A scores for the HIs across the five studies. It is possible that HIs who experience a more severe degree of handicap are likely to have a greater perceived handicap than their

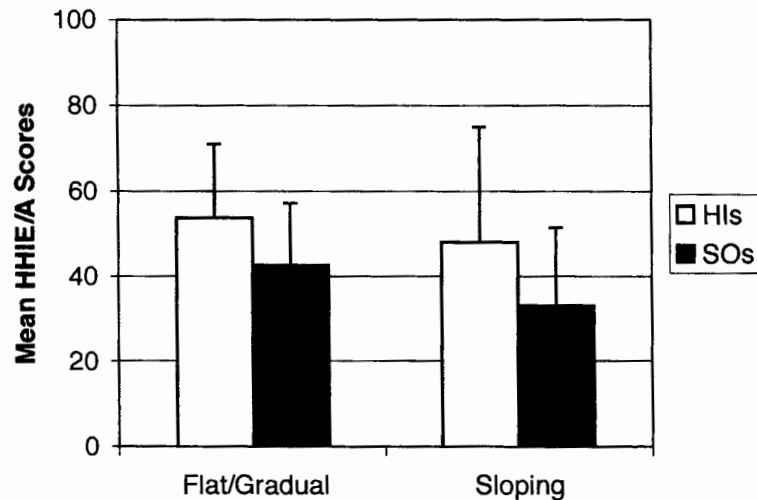


Figure 3. Mean total Hearing Handicap Inventory for the Elderly and the Hearing Handicap Inventory for Adults (HHIE/A) scores for adults with hearing impairment (HIs) and their significant others (SOs). Bars on the left show data for HIs with flat or gradual hearing losses and their SOs. Bars on the right show data for HIs with sloping hearing losses and their SOs.

SOs perceive, and HIs with a more mild degree of handicap are likely to have a lesser perceived handicap than their SOs perceive. With this hypothesis in mind, the data from the current study were re-analyzed.

The mean HHIE/A score was 50.9 across all HIs, so the data were examined separately for HIs with HHIE/A scores less than or equal to 50 ($n=12$) and for HIs with HHIE/A scores greater than 50 ($n=13$). The mean results for SOs and HIs are shown in Figure 4. Visual inspection of Figure 4 reveals similar HHIE/A scores for HIs and SOs in the HHIE/A ≤ 50 group ($t=0.795$, $df=22$, $p=.10$), and much greater handicap reported by the HIs in the HHIE/A > 50 group compared to their SOs. The difference in HHIE/A scores was significant for the HHIE/A > 50 group with the Bonferroni correction applied ($t=2.589$, $df=24$, $p<.025$).

The Minimization Effect

Hétu et al. (1993) explored the impact of hearing loss on the relationship between HIs and SOs. They explained that many adults with acquired hearing loss deny or minimize their hearing difficulties in order to avoid the stigma associated with hearing loss. It is possible that individuals who have not come to terms with their hearing loss have lesser hearing handicap scores than their SOs. We can call

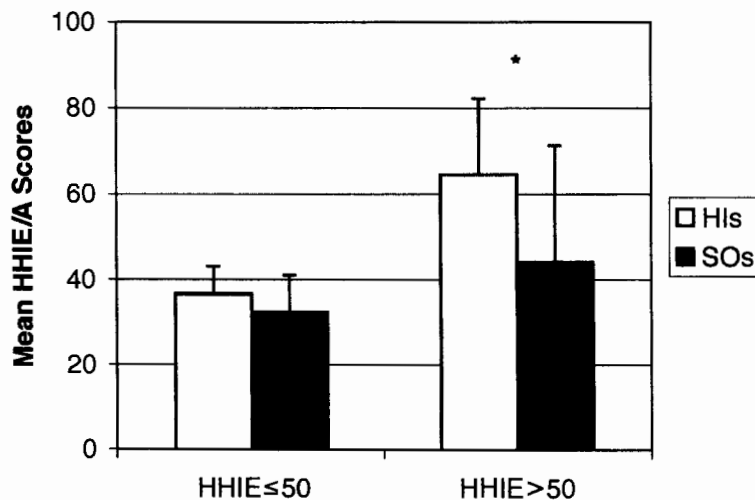


Figure 4. Mean total Hearing Handicap Inventory for the Elderly and the Hearing Handicap Inventory for Adults (HHIE/A) scores for adults with hearing impairment (HIs) and their significant others (SOs). Bars on the left show data for HIs with HHIE/A scores less than or equal to 50 and their SOs. Bars on the right show data for HIs with HHIE/A scores greater than 50 and their SOs. A significant difference between HI and SO scores ($p < .025$) is shown with an asterisk.

this the “HI-Minimization Effect”; HIs may minimize the effect of their hearing loss on communication while their SOs may be frustrated by the communication breakdowns that occur because of their HI’s hearing loss. This would explain the results in the Chmiel and Jerger (1993, 1996) studies. We did not see many of these HIs in the present study because we only evaluated HIs who had HHIE/A scores greater than 30. By setting this HHIE/A cutoff we effectively eliminated those listeners with hearing loss who minimize their hearing difficulties.

The HIs in the present study were all experienced hearing aid users who wanted to participate in a group audiologic rehabilitation class. These individuals were actively seeking solutions to their hearing handicap and clearly felt no need to minimize or deny their handicap. The SOs of this group of HIs may not fully understand the daily frustrations faced by the HIs due to recurrent communication breakdowns. The SOs may, in fact, minimize the hearing handicap experienced by their HIs; we can call this the “SO-Minimization Effect.”

It is possible, then, that the relation between the perceptions of HIs and their SOs can be explained by the handicap experienced by the HI. HIs who report a minimal or mild handicap (e.g., HHIE/A < 30) may in fact be minimizing their communication difficulties and their SOs may be reporting a more accurate assessment of the effects of the HIs’ hearing impairment on their relationship. HIs who report a moderate or severe handicap (e.g., HHIE/A > 50) are clearly frustrated by their handicap and their SOs may not truly appreciate the extent of the handicap experienced by their partners. Handicap scores should be collected on greater numbers of HIs and SOs in order to determine whether the HI-Minimization Effects and the SO-Minimization Effects really do occur, and if so, what the HHIE/A cut-offs are for each of these effects.

SO Hearing Handicap

It is also important to remember that the HHIE/A-SO scores are not a reflection of the handicap experienced by the SOs, but rather what the SO perceives is the handicap experienced by the partner or friend with hearing loss. Héту et al. (1993) explained how the perceptions of the SO could be evaluated using a one-sided or a two-sided analysis. A one-sided analysis is one in which the SO is asked about the communication difficulties experienced by the partner with hearing loss. A two-sided analysis is one in which the SO is asked about the communication difficulties that he/she experiences as a result of the partner’s hearing loss, in addition to the handicap that the SO perceives is experienced by the partner. There are published scales available that may provide more of a two-sided analysis of hearing handicap. Recently, the International Outcome Inventory for Hearing Aids (IOI-HA) has been revised in order to measure the SO’s perceptions of the partner’s hearing loss (IOI-HA-SO; Noble, 2002). In this scale three of the seven questions refer to the individual with hearing loss, while the other four refer to the SO’s feelings and attitudes about the hearing handicap and hearing aid use.

An alternate possibility is to modify the HHIE/A-SO in order to provide a two-sided analysis. Regardless of the actual scale used, it would be useful to administer a two-sided handicap analysis in future studies.

Summary and Clinical Relevance

In summary, the results of the present investigation have shown that the relationship between perceived hearing handicap of HIs and their SOs is inconsistent across different studies, and this may be related to the degree of handicap experienced by the HI. HIs who report greater degrees of handicap may in fact experience greater handicap than that which is perceived by their SOs (possibly an SO-Minimization Effect). HIs who experience lesser degrees of handicap may report lesser degrees of handicap than their SOs (possibly an HI-Minimization Effect) in agreement with Chmiel and Jerger (1993, 1996).

If the HI- and SO-Minimization Effects do occur, this would be useful to note when counseling HIs and their SOs regarding hearing aid use and participation in audiologic rehabilitation programs. HIs with the HI-Minimization Effect may not seek out audiologic rehabilitation services, despite the fact that their SO notices their hearing handicap. SOs with the SO-Minimization Effect may not realize that they need to actively seek out communication repair strategies, despite the fact that their HIs feel handicapped by their hearing losses. Future research is necessary to see if these effects do occur and to determine whether these findings are consistent regardless of HI age and hearing aid experience.

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