Evaluation of Hearing Aid Benefit Using the Shortened Hearing Aid Performance Inventory

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Abstract
To date, little quantitative data regarding hearing aid benefit has been produced in New Zealand. The 38-item Shortened Hearing Aid Performance Inventory (SHAPI) was administered by mail to hearing aid clients aged over 50 years who had been fitted with hearing aids in the previous 2 years. Based on subjects' responses, three items with low applicability were dropped from the analysis. The overall mean rating was higher than that of comparable studies, indicating a lower hearing aid benefit level. Mean rating was positively correlated with subject age but was not correlated with weekly hours of use. Factor analysis revealed three significant factors that were consistent with factors identified in previous studies: listening under favorable conditions, listening to speech in background noise, and listening with reduced cues. Consistent with previous studies, internal consistency was very high.

Key Words: Benefit, elderly, hearing, hearing aids, questionnaire

The process of aural rehabilitation typically consists of provision of hearing aids and/or the development of psychological coping strategies as well as verbal and nonverbal communication skills. Evaluation of the degree of benefit or success of this process has traditionally involved measurement of speech reception. Self-report questionnaires provide an attractive alternative to clinical speech tests that have poor reliability (Birk-Nielsen and Ewertson 1974; Walden et al, 1983; Dempsey 1986; Cox and Gilmore, 1990; Mulrow et al, 1990).

The majority of hearing aids are used by the elderly (Cranmer, 1988). Unfortunately, many of the physical changes that accompany aging adversely affect successful use and acceptance of hearing aids (Mulrow et al, 1990). Diminished central auditory function and cognition, reduced mobility, and depression (Poon, 1985; McCarthy, 1987) can exacerbate the psychological and social communication barriers resulting from hearing impairment. Reduced dexterity in handling hearing aids can be a cause for hearing aid rejection (Meredith and Stevens, 1993).

The 64-item Hearing Aid Performance Inventory (HAPI) was developed by Walden et al (1984) to assess hearing aid benefit in a variety of listening situations across a wide range of ages. Walden et al (1984) identified four broadly defined factors that emerged as variables affecting hearing aid benefit. These were speech in quiet, speech in noise, speech with reduced information in the signal, and nonlive speech or nonspeech. The questionnaire had high internal reliability.

In response to concerns regarding the length and appropriateness of the HAPI for the elderly (Newman and Weinstein, 1988), Schum (1992) developed a shortened version of the HAPI for use with elderly hearing aid clients. Schum (1992) selected 38 items that elicited responses from at least 90 percent of elderly subjects. Analysis of responses to the 38 items revealed three factors that were similar to those defined by Walden et al (1984). A high degree of internal consistency was found between the 38 items.

The HAPI was also modified by Dillon (1994), at first to a 40-item version. Factor
analysis revealed three factors, listed as conversation in noise, listening with reduced visual cues, and a "miscellaneous" factor incorporating listening in quiet, at a short distance, and listening to nonspeech sounds. These three factors together accounted for 50 percent of the variance across items. The statistics for each item (number of subjects answering, standard deviation, item total correlation, and highest factor loading) were standardized, summed, and ranked in descending order. The seven lowest ranking items plus eight others to which less than 70 percent of subjects responded were eliminated, resulting in a 25-item questionnaire. Dillon (1994) deemed this version to be as valid as the original 64-item HAPI. Neither Schum (1992) nor Dillon (1994) identified a factor consistent with Walden et al's (1984) fourth factor, representing nonspeech or nonlive speech.

In the present study, Schum's (1992) 38-item Shortened Version of the HAPI (SHAPI) was used on a population of older hearing aid users in New Zealand. Schum's (1992) version was chosen for investigation rather than Dillon's (1994) more restricted 25-item HAPI in order to find a wider range of questionnaire items applicable to the New Zealand population.

The SHAPI was incorporated into a larger questionnaire that examined patterns of hearing aid use and the accessibility of local aural rehabilitation services. The questionnaire, entitled the Hearing Aid Support Service Questionnaire, had two parts. The first part was the SHAPI and the second part examined the accessibility of local hearing aid rehabilitation services. In this paper, SHAPI questionnaire results are presented.

Factor analysis was performed on SHAPI responses in order to highlight similarities and differences in factor structure between data from the present study and Walden et al (1984) and Schum (1992). Subject age, monaural versus binaural fitting, and weekly hours and duration of hearing aid use were compared to SHAPI ratings.

METHOD

Questionnaire

The questionnaire contained a section requiring details about age, whether hearing aid use was monaural or binaural, hourly use per week, and duration of hearing aid use. The SHAPI that followed this section consists of items describing specific listening situations. The subject judges the hearing aid according to a 5-point numeric rating scale where 1 is "very helpful," 2 is "helpful," 3 is "very little help," 4 is "no help," and 5 is "hinders performance." All questions have a "does not apply" option. SHAPI items (Schum, 1992) are listed in the Appendix.

Subjects

Subjects were selected by hospital staff from the files of public hospital audiology clinics (n = 154) and one private hearing aid clinic (n = 43) within the Auckland region. Clinic staff were asked to select subjects aged 50 years and older who had attended the clinics during 1992, 1993, and 1994. Candidates were identified only by clinic, and each was assigned an arbitrary subject number. Due to client confidentiality, audiometric data were not available.

Procedure

Six hundred and thirty-six forms inviting subjects to participate in the study were sent to hearing aid clinics. These were distributed to selected clients by clinic staff. Two hundred

<table>
<thead>
<tr>
<th>Variable</th>
<th>Present Study</th>
<th>Schum (1992)</th>
</tr>
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<tbody>
<tr>
<td>Mean age (SD)</td>
<td>70.4 yr (9.4 yr)</td>
<td>71.7 yr (4 yr)</td>
</tr>
<tr>
<td>Monaural vs binaural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monaural</td>
<td>51%</td>
<td>45%</td>
</tr>
<tr>
<td>Binaural</td>
<td>49%</td>
<td>55%</td>
</tr>
<tr>
<td>Mean weekly use (SD)</td>
<td>65.2 hours (36.7 hours)</td>
<td>49.6 hours</td>
</tr>
<tr>
<td>Duration of use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 6 mo</td>
<td>3.1%</td>
<td>12%</td>
</tr>
<tr>
<td>6-24 mo</td>
<td>25.0%</td>
<td>53%</td>
</tr>
<tr>
<td>2-5 yr</td>
<td>20.3%</td>
<td>18%</td>
</tr>
<tr>
<td>Over 5 yr</td>
<td>51.6%</td>
<td>17%</td>
</tr>
</tbody>
</table>
ninety-one (45.8%) replied. Thirteen of these subjects were excluded as their ages fell outside the required age range. Each subject was then sent a copy of the questionnaire, together with an introductory letter and information sheet explaining the project. Sixty-eight percent of questionnaires (197) were returned. Ninety-four of the respondents were men and 103 were women. There was no follow-up procedure for subjects who failed to return the questionnaire. Table 1 provides descriptive information regarding age, monaural and binaural hearing aid use, and hours per week and duration of use for respondents.

Analysis

Factor analysis was conducted to determine whether more than one variable, or dimension, of perceived hearing aid benefit could be identified. All items with variance loadings above 0.35 on a specific factor were grouped with that factor. Each factor can be interpreted as representing a broadly defined category of listening situation. Overall mean SHAPI ratings and means for each factor were calculated for individual subjects.

RESULTS

Questionnaire Response Rates and Respondent Characteristics

Three questionnaire items, numbers 9, 18, and 21, generated more than 20 percent "does not apply" responses and were not included in the analysis. Fifty-five subjects responded to fewer than 25 of the 35 items and were not included. A further 13 of the subjects selected by clinic staff were excluded as their ages fell outside the required age range. Thus, the analysis was based on 129 of the 197 returned questionnaires.

Within the final group of 129 subjects, ages ranged from 53 to 29 years (mean = 72.3, SD = 7.0 years). Fifty-seven percent of subjects reported that they were monaural hearing aid wearers. Only one subject reported no longer wearing hearing aids. On average, subjects reported wearing their hearing aids for 59.8 hours per week (SD = 38.5 hours).

Correlation between SHAPI Ratings and Other Variables

The overall grand mean SHAPI rating for subjects included in the analysis was 2.50 (SD = 0.52). This was significantly higher than the mean of 2.30 found by Schum (1992) (z = 2.52, p = .006) and 2.13 found by Walden et al (1984) (z = 4.066, p < .0001), indicating a lower overall mean level of hearing aid benefit in the present study. Overall SHAPI ratings and age were positively correlated (Pearson’s r = .193, p = .034). Since higher SHAPI ratings indicate lower benefit, this indicates a trend of reducing hearing aid benefit with increasing age, as shown in Figure 1. There were no significant differences in mean ratings between monaural and binaural hearing aid users (t [127] = 1.261, p = .209) or between the three categories of duration of use defined in Table 1 (t [58, 70, 58] ≤ .510, p ≥ .612). The correlation between overall SHAPI ratings and weekly hours of hearing aid use was also not significant (Pearson’s r = .008, p = .927).

Factor Analysis

Principal components factor analysis with orthogonal rotation (Varimax method) was performed using SAS® software, revealing three factors with Cronbach’s alpha measures of internal consistency above .85 (Weinstein, 1984). Table 2 shows the item content of the three factors. Also shown are the four factors from Walden et al’s (1984) study, with items numbered as listed in the 38-item shortened HAPI (Schum, 1992). The three factors identified by Schum (1992) are also shown. Mean ratings, standard deviations, and factor loadings for each item in the present study are shown in Table 3. Only factor loadings ≥ .35 are shown.
Table 2  Item Listings for Each Factor for the Present Study and for Walden et al (1984) and Schum (1992)

| Present study | Factor A | 1, 2, 4, 7, 10, 11, 12, 13, 15, 16, 17, 20, 22, 23, 24, 26, 27, 28, 32, 33, 36, 37 |
| Schum (1992) | Factor 1 | 1, 2, 7, 10, 11, 13, 15, 16, 17, 23, 24, 27, 28, 36, 37 |

Items 9, 18, and 21 are excluded as not included in present analysis.

Thirteen of 22 items contained in Factor A in the present study represented a quiet listening environment with no distraction or with talker close. Table 2 shows that, after the low response items 9, 18, and 21 were removed from the comparison, Factor A contained all items in Walden et al’s (1984) Factors 2 and 4. Factor A also contains all items in Schum’s (1992) Factor 1. Walden et al’s Factor 2 and Schum’s Factor 1 represent a quiet listening environment with talker close. Walden et al’s Factor 4 consists of nonspeech or nonlive speech items. There was no factor in the Schum study that compared with Walden et al’s Factor 4.

Nine of 17 items contained in Factor B identified in the present study represented listening with absence of or reduced visual cues. Factor B included 81.8 percent of items in Walden et al’s Factor 3 and 91.7 percent of items in Schum’s Factor 2. All items in Factor C represented a noisy listening environment. Factor C contained 61.5 percent of items in Walden et al’s Factor 1 and 87.5 percent of items in Schum’s Factor 3. Thus, it appears that Factors B and C in the present study are reasonably consistent with factors described by Walden et al and Schum representing listening with reduced information in the speech signal and listening in background noise, respectively.

Table 4 shows the items in each of the factors that had the highest and lowest factor loadings. Item 16, with the lowest mean SHAPI rating (i.e., highest benefit), showed the highest loading on Factor A. Item 35, with the highest loading on Factor C, showed the second highest mean SHAPI rating (i.e., low benefit). As indicated by the items in Table 4, each of the factors identified in the present study represents a diverse set of listening situations; thus, only general labels should be given to the factors.
Table 4 Items with Highest and Lowest Factor Loadings for Each Factor

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loading</th>
<th>Wording</th>
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<tr>
<td>Factor A 16</td>
<td>0.79</td>
<td>You are at home in face-to-face conversation with another member of your family.</td>
</tr>
<tr>
<td>28</td>
<td>0.35</td>
<td>You are in a crowded reception room waiting for your name to be called.</td>
</tr>
<tr>
<td>Factor B 34</td>
<td>0.81</td>
<td>You are talking to a large group and someone from the back of the audience asks a question in a relatively soft voice. The audience is quiet as they listen to the question.</td>
</tr>
<tr>
<td>26</td>
<td>0.37</td>
<td>You are talking with a bank teller at the bank.</td>
</tr>
<tr>
<td>Factor C 35</td>
<td>0.73</td>
<td>You are in a large, noisy party and are engaged in conversation with one other person.</td>
</tr>
<tr>
<td>17</td>
<td>0.38</td>
<td>You are at a large busy department store and are talking with a sales clerk.</td>
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Table 5 Means and Standard Deviation for the SHAPI Overall and for Each of the Significant Factors in the Present Study and for Equivalent Factors in Walden et al (1984) and Schum (1992)

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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Overall</td>
<td>2.50</td>
<td>0.52</td>
</tr>
<tr>
<td>Factor A</td>
<td>2.21</td>
<td>0.55</td>
</tr>
<tr>
<td>Factor B</td>
<td>2.58</td>
<td>0.57</td>
</tr>
<tr>
<td>Factor C</td>
<td>2.92</td>
<td>0.65</td>
</tr>
</tbody>
</table>

listening in noise and in quiet. In each of the situations described by these items, it is likely that the level of noise could vary considerably. Items 26, 27, 32, and 37 showed loadings on Factors A and B, representing listening in quiet and with reduced or absent visual cues.

Values for Cronbach's alpha were .94 for the overall questionnaire, .90 for Factors A and B, and .86 for Factor C, indicating a high level of internal consistency overall and for each of the three factors. Similar values (.85-.95) were reported by Schum (1992).

Comparison of SHAPI Factor Means

Hearing aid benefit varied significantly across the three dimensions of listening environment represented by the three factors. Factor A showed the lowest and Factor C the highest mean SHAPI rating, indicating that the highest mean benefit was attained in listening situations described by items included in Factor A, and the lowest benefit was attained in situations described by Factor C (Table 5). There were significant differences between mean SHAPI ratings for Factors A and B (t [128] = 3.942, p < 0.0001). There were also significant differences between the overall mean SHAPI rating and each of Factors A, B, and C (t [128] > 3.942, p < 0.0002). Mean SHAPI ratings for each of Factors A, B, and C were significantly higher than for the equivalent factors identified by Schum (1992) (z ≥ 2.52, p ≤ 0.0059) and Walden et al (1984) (z ≥ 4.07, p ≤ 0.00003), indicating less benefit overall in the present study.

Table 6 shows the 10th, 25th, 50th, 75th, and 90th percentile ratings for the SHAPI overall and for each of the three factors. Equivalent data from Schum (1992) are included for comparison. The use of percentile ratings, when represented graphically (Fig. 2), allows an individual's mean overall and factor ratings on the SHAPI to be plotted and evaluated with respect to data specific to the subject population.

DISCUSSION

Factor Analysis

Factor analysis revealed that hearing aid benefit varied across three dimensions. The first mainly consisted of quiet listening situations with talker close, associated with the highest benefit level. The second represented listening with reduced visual cues or reduced information in the speech signal. The third factor represented listening in background noise and was associated with the lowest benefit level. The same ranking of these three factors was seen in previous studies (Walden et al, 1984; Schum, 1992). The overall mean rating of 2.50 was exactly halfway between the SHAPI response categories of "helpful" (2) and "very little help" (3), representing only a moderate level of hearing aid benefit. The mean ratings for each of Factors A (2.21), B (2.58), and C (2.92) also lie between these response categories.
The high benefit observed for quiet listening environments with signal close, represented by Factor A of the 35-item SHAPI, demonstrates the importance of a high signal-to-noise ratio in maximizing hearing aid benefit. Factor A also included five of the items in Walden et al.'s (1984) Factor 4 that represented listening to nonspeech or nonlive speech. The four nonspeech items in Factor A represent a relatively easy listening task, as only detection of the signal is necessary and not understanding or interpretation as for speech. The one nonlive speech item in Factor A, involving listening to television, may also represent an easy listening task as the listener is able to control the acoustic qualities of the signal, that is, level and tone. It is likely that older individuals, possibly living alone, listen to television in a quiet room. This is consistent with the view that Factor A represents easy or favorable listening conditions.

**Variables Influencing SHAPI Ratings**

Higher SHAPI values found in the present study for the overall questionnaire and each of the factors suggest that the general level of satisfaction with hearing aids was lower for this subject sample than that found by Schum (1992) and Walden et al. (1984). Mean subject age in the present study was slightly higher than in these previous studies. Older subjects, with more restricted lifestyles and poorer health (Poon, 1985; Ronch and van Zanten, 1992), are likely to obtain less benefit from hearing aids. Central processing difficulties associated with aging can also adversely affect hearing aid benefit (Hayes, 1985; Kauser, 1988). This is consistent with the present study's finding that age was correlated with mean SHAPI rating. Perceived hearing aid benefit as measured by the SHAPI in the present study was correlated to subject age. The difference in mean age between the present study and Schum (1992) was very small, however, and thus it is difficult to explain the difference in SHAPI ratings on the basis of age alone.

Kochkin (1995) found that overall satisfaction with hearing aids declined as age of the instrument increased from 1 to 6 or more years. Schum's (1992) subjects all had been fitted with new hearing aids in the previous 3 years. In contrast, most subjects in the present study had been fitted with new hearing aids but some had visited the clinics for repairs or modifications of existing hearing aids; thus, hearing aids were probably older on average. Differences in hearing aid age could account for at least some of the difference in SHAPI ratings between the present study and Schum (1992).

Hearing aid benefit as measured by the mean SHAPI rating was not related to monaural or binaural hearing aid use, duration of use, or weekly hours of use. Schum (1992) also found that monaural versus binaural use and duration of hearing aid use were not correlated with overall SHAPI ratings. The relationship between use time and benefit or overall satisfaction has been inconsistent across studies. Schum (1992) found that daily hours of use were weakly correlated (r = .33) with SHAPI ratings. Kochkin (1995), using the Abbreviated Profile of Hearing Aid Benefit (Cox and Alexander, 1995), also found that people who wear their aids more receive more benefit. In contrast, Bentler et al. (1993) found no correlation between use time and benefit measured using the Hearing Performance Inventory. Brooks (1985) and Satherley (1992) found that hearing aid use time and overall satisfaction were related, but this was not found by Parving and Philip (1991) or Bentler et al. (1993).
The reasons for the discrepancies across studies, including the present study, are not clear. In general, however, it appears that the perception of hearing aid benefit or satisfaction is not simply reflected by the number of hours hearing aid users wear their aids.

Perceived benefit has been found to vary over periods of up to 1 year after fitting (Demorest and Walden, 1984; Dempsey, 1986; Cox and Alexander, 1992; Taylor, 1993). Average duration of use was similar in the present study to Walden et al (1984); thus, this variable is unlikely to account for the difference in mean rating. The majority of subjects in the present study had worn aids for more than 5 years, whereas Schum's subjects had mostly had aids for 6 to 24 months. For both studies, however, most subjects had worn hearing aids beyond the initial 6-month period during which subjects tend to give higher ratings of hearing aid benefit (Taylor, 1993). To our knowledge, no study has examined subjects' perceptions of hearing aid benefit over several years to see whether further changes occur.

It is possible that subjects in the present study had greater hearing loss than in the Schum (1992) analysis, since subjects in the present study were wearing hearing aids more often and had worn them longer on average despite being a similar age. As one might expect, people with greater hearing loss wear their hearing aids more often (Brooks, 1985; Satherley, 1992). The reported relationship between audiometric thresholds and hearing aid benefit ranges from nonsignificant (Schum, 1992) to significant (Kochkin, 1995). The discrepancy between the latter two studies may be due to the use of different instruments to measure benefit and the larger sample size in Kochkin's MarkeTrak IV survey. Kochkin found that hearing aid wearers with greater hearing loss obtained greater benefit as measured by the Abbreviated Profile for the Hearing Impaired. Based on Kochkin's findings, if subjects in the present study were more hearing impaired, they should have reported greater hearing aid benefit than Schum's (1992) subjects. Thus, the suspected difference in degree of hearing loss does not readily account for the discrepancy in reported benefit between the present study and Schum (1992). Further research is needed to clarify the impact of degree of hearing loss on hearing aid benefit in the New Zealand population.

**Effects of Attitude on Perceived Benefit**

Variables such as prefitting attitude and expectations regarding hearing aids can influence hearing aid benefit and level of satisfaction (Kapteyn, 1977a, b; Kricos et al, 1991). A poor attitude may outweigh the perceived benefits of hearing aids, ultimately leading to rejection (Kasten, 1992). Individual attitudes, as opposed to technical problems, have been identified as causes for dissatisfaction (Brooks, 1985, 1989). A recent study found that older New Zealanders generally have a positive outlook on life, but 60 percent expressed an attitude that they must accept what comes to them and that they did not believe they were able to improve their quality of life (Colmar Brunton Research, 1990). It is thus possible that relatively low overall benefit levels in the present study may be associated with acceptance of inadequately fitted or poorly functioning hearing aids.

**CONCLUSION**

The potential of the HAPI, or the 38-item shortened version, as a measure of hearing aid benefit in the routine clinical setting has previously been noted (Schum, 1992). The results of the present study for the 35-item modified shortened version of the HAPI support this in the New Zealand context. The high internal consistency of the overall questionnaire and each of the factors found in the present study is similar to that found by Schum (1992) and confirms that the shortened HAPI is a robust measure of hearing aid benefit.

SHAPI items consist of specific listening situations with which subjects are assumed to be familiar. The need to drop three of the items from the analysis due to poor response levels indicates the importance of cultural and lifestyle differences when administering questionnaires to different populations. Two of the three questions with high nonresponse rates related to attending church, and the third involved hearing the news from a car radio. Apparently, the New Zealand respondents in the present study did not identify strongly with these situations.

Subjects who responded to less than 25 SHAPI items were older on average and in general had worn their hearing aids for less time. Lack of experience with certain listening environments could be expected with the restricted lifestyle and poorer health associated with aging in some individuals. Subjects who had worn hearing aids for less time were also using them in a more restricted range of listening situations than more experienced hearing aid users.

For clinical purposes, the three dimensions of hearing aid benefit identified here and previously suggest that a profile of hearing aid bene-
fit consisting of up to three scores, one for easy listening, one for difficult listening in background noise, and one for listening with reduced cues, would provide a more accurate representation of hearing aid benefit than a single, global score. A mean rating that lies above a criterion value such as the 75th SHAPI percentile could indicate a candidate for ongoing rehabilitation help. Comparing an individual's profile of scores to group data as shown in Figure 2 allows quantitative determination of the need for rehabilitation.

Acknowledgment. The authors would like to thank Dr. Peter Thorne for ongoing support and advice. The authors would also like to thank Elizabeth Robinson of the School of Medicine's Biostatistics Unit for her help with the statistical analysis. Audiology Clinic staff at Auckland, Green Lane, and Middlemore Hospitals and at Waitakere Hearing Centre are also thanked for their time and cooperation in selecting subjects and distributing information forms.

REFERENCES


APPENDIX

Items of The Shortened Hearing Aid Performance Inventory (Schum, 1992)

1. You are sitting alone at home watching the news on TV.
2. You are involved in an intimate conversation with your partner.
3. You are watching TV and there are distracting noises such as others talking.
4. You are at home engaged in some activity and the telephone rings in another room.
5. You are at home in conversation with a member of your family who is in another room.
6. You are listening to a speaker who is talking to a large group and you are seated toward the rear of the room. The speaker’s back is partially turned as he/she makes notes on a blackboard.
7. You are starting to cross a busy street and a car horn sounds a warning.
8. You are walking in the downtown section of a large city. There are the usual city noises and you are in conversation with a friend.
9. You are driving your car and listening to a news broadcast on the radio. You are alone and the windows are closed.
10. You are in a crowded grocery store checkout line and are talking with the cashier.
11. You are at home watching TV and the doorbell rings.
12. You are taking an evening stroll with a friend through a quiet neighbourhood park; there are the usual environmental sounds around (e.g., children playing, dogs barking, birds singing).
13. You are at home alone listening to your stereo system (instrumental music).
14. You are in whispered conversation with your partner at an intimate restaurant.
15. You are in the kitchen in conversation with your partner during the preparation of the evening meal.
16. You are at home in face-to-face conversation with one member of your family.
17. You are shopping at a large, busy department store and are talking with a sales clerk.
18. You are in church listening to the sermon and sitting in the front pew.
19. You are listening to a speaker who is talking to a large group and you are seated towards the rear of the room. There is occasional noise in the room (e.g., whispering, rattling papers, etc.).
20. You are having a conversation in your home with a salesperson and there is background noise. (e.g., TV, people talking, etc.) in the room.
21. You are in church listening to the sermon and sitting in the back pew.
22. You are talking with a friend outdoors on a windy day.
23. You are driving your car with the windows up and radio off and are carrying on a conversation with your partner, who is in the front seat.
24. You are ordering food for the family at a fast-food restaurant.
25. You are at home reading the paper. Two family members are in another room talking quietly and you want to listen in on their conversation.
26. You are talking with a bank teller at the bank.
27. You are in conversation with a neighbour across the backyard fence.
28. You are in a crowded reception room waiting for your name to be called.
29. You are in your backyard gardening. Your neighbour is using a noisy power lawnmower and yells something to you.
30. You are listening in a small, quiet room to someone who speaks softly.
31. Someone is trying to tell you something in a small, quiet room while you have your back turned.
32. You are driving your car with the windows down and are carrying on a conversation with others riding with you.
33. You are in a quiet conversation with your family doctor in an examination room.
34. You are talking to a large group and someone from the back of the audience asks a question in a relatively soft voice. The audience is quiet as they listen to the question.
35. You are at a large noisy party and are engaged in conversation with one other person.
36. You are at the dinner table with your whole family and are in conversation with your partner.
37. You are one of only a few customers inside your bank and are talking with a teller.
38. You are riding in a car with friends. The windows of the car are wound down. You are in the back seat carrying on a conversation with them.