

# Counseling Adolescents with Hearing Loss with the Use of Self-Assessment/Significant Other Questionnaires

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## Abstract

After adapting a pair of adult Self-Assessment/Significant Other questionnaires, the first author explored the value of the modified questionnaires in providing counseling to adolescents with hearing loss. Twenty adolescents with hearing loss served as subjects; peers with normal hearing were selected as their Significant Other to capitalize on the importance of peer relationships and opinions during adolescence. Each dyad completed a 12-item questionnaire designed to explore the communicative, emotional, and social impact of hearing loss. Responses to each pair of questionnaires were reviewed by the adolescent and the audiologist and served as a basis for counseling. Subsequent dialogues revealed recurring themes as the teens attempted to face age-appropriate developmental challenges as individuals with hearing loss. Based on their responses to a follow-up questionnaire, most of the adolescents found the counseling process beneficial.

**Key Words:** Counseling, hearing loss, questionnaires

**Abbreviations:** PTA = average of the pure-tone threshold hearing levels at 500, 1000, and 2000 Hz; SO = Significant Other

## Sumario

Después de adaptar un par de cuestionarios de auto-evaluación del adulto y con la intervención de "otra persona significativa", la primera autora exploró el valor de los cuestionarios modificados para proveer consejería para adolescentes con hipoacusia. Los sujetos fueron veinte adolescentes con pérdida auditiva; los compañeros con audición normal fueron seleccionados como su "otra persona significativa", para capitalizar sobre la importancia de las relaciones y opiniones entre amigos y compañeros durante la adolescencia. Cada dúo completó un cuestionario de 12 preguntas, diseñadas para explorar el impacto comunicativo, emocional y social de la pérdida auditiva. Las respuestas de cada par de cuestionarios fueron revisadas por el adolescente y el audiólogo, y sirvió como base para la consejería. Los diálogos subsecuentes revelaron temas recurrentes que aparecían conforme los adolescentes intentaban enfrentar retos del desarrollo apropiados para la edad como individuos con un trastorno auditivo. Basados en sus respuestas a un cuestionario de seguimiento, la mayor parte de los adolescentes encontró beneficio en el proceso de consejería.

**Palabras Clave:** Consejería, hipoacusia/ pérdida auditiva, cuestionarios

**Abreviaturas:** PTA = promedio de los umbrales de nivel auditivo con tonos puros a 500, 1000 y 2000 Hz; SO = "otra persona significativa"

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The provision of counseling to individuals with hearing loss is a component of hearing health care that can and should be provided by audiologists. Counseling involves not only the conveyance of factual information about hearing loss and appropriate (re)habilitation measures (informational counseling), but also the discussion of the psychological, social, and emotional impact of hearing loss (affective or personal adjustment counseling). Although both informational and personal adjustment counseling are within audiologists' scope of practice, research by Clark (2001) and by English (2000) suggests that many audiologists are not prepared to assume that responsibility.

One group of individuals for whom counseling may be particularly essential is adolescents with hearing loss. During the teen years, the impact of hearing loss can be most obvious and influential, when developmental challenges include the establishment of autonomy, identification of self, and affiliation with a peer group (Altman, 1996). Cohen (1978) reports on adolescents' increased reliance on verbal communication to maintain friendships. Meeting these communicative expectations may be difficult for teens with hearing loss. As a result, some of the social and emotional challenges of adolescence may not be fully met. As important as it may be to engage adolescents in the counseling process, it can be a daunting task. Elkayam and English report that this age group poses "a particular challenge in counseling as they are less likely to be forthcoming about their communication problems" (1999, 50).

One tool that can be used to facilitate counseling is the self-assessment questionnaire (McCarthy and Alpiner, 1983; Kopun and Stelmachowicz, 1998; Armero, 2001). In describing the value of self-assessment as a counseling tool, English (2000) stated, "it gives the patient and the audiologist a neutral 'third thing' to talk about, which seems to ease the discomfort that can come with self-disclosure" (2000, 15). Furthermore, questionnaires that rely on input from a Significant Other (SO) in addition to the individual with hearing loss may have particular value for counseling purposes (Schow and Nerbonne, 1982; McCarthy and Alpiner, 1983; Kopun and Stelmachowicz, 1998; Armero, 2001). Most

self-assessment questionnaires, either with or without an SO component, were designed for adults. Examples include the *Abbreviated Profile of Hearing Aid Benefit (APHAB)* (Cox and Alexander, 1995) and the *Client Oriented Scale of Improvement (COSI)* (Dillon et al, 1997). Questionnaires such as the *Children's Auditory Performance Scale (CHAPS)* (Smoski et al, 1998) and the *Screening Instrument for Targeting Educational Risk (S.I.F.T.E.R.)* (Anderson and Matkin, 1989) are designed to be used with children but are not true self-assessments as they typically obtain input from adults, either parents or teachers. The few pediatric questionnaires that obtain information directly from the child do not specifically address adolescent needs. *The Listening Inventory for Education: Student Appraisal of Listening Difficulty* (Anderson and Smaldino, 1998) and the *Children's Peer Relationship (CPR) Scale* (English, 2001a) are designed to be used with elementary school children. An exception to this is a survey recently created for middle school students with hearing loss (Lambert and Goforth, 2001).

The purpose of the present project was to modify an adult self-assessment questionnaire for adolescent populations and to report the outcome of its use as a counseling tool. A questionnaire with an SO component was selected to offer the teen additional perspective on the impact of the hearing loss. It was hypothesized that using a peer with normal hearing as the Significant Other might provide the adolescent with insight from someone whose opinion and influence can be paramount during this time of life.

## METHODS

### Subjects

Twenty subjects (12 males, 8 females) participated in the investigation (mean age = 14.49 years; range = 12 to 18 years). These adolescents met the following subject criteria: they (1) had bilateral hearing loss characterized by pure-tone average (PTA) of 25 dB HL or greater in the better ear (mean PTA = 42.47 dB HL; range = 25 dB HL to 67 dB HL), (2) communicated through listening and speaking, and (3) received either no special education services (17 of 20 students) or services that were limited to those provided

by a teacher of students with hearing loss, a speech/language pathologist, or both (3 of 20 students). Although not part of the eligibility criteria, information regarding hearing aid use was gathered. Hearing aids had been recommended for all the students. Nine wore the instruments regularly, two others on a perceived as-needed basis, and the remaining nine had discontinued hearing aid use.

Subjects were selected from the caseload of the investigator, an educational audiologist. The SOs selected by the adolescents attended school with them and had at least one class in common; they also interacted out of school. The adolescents and SOs were informed verbally and in writing that their participation was voluntary and they could refuse continued participation at any time (per National Institutes of Health, 1999).

### **Instruments**

Three instruments were used in this study: a pair of self-assessments, a rating scale designed to investigate the validity of modifications made to the self-assessments, and a follow-up survey designed to obtain subjects' perceptions of the counseling process. These are described below.

#### ***Self-Assessments***

**Selection Criteria.** In addition to a Significant Other component, desirable components of the questionnaire included brevity, a multiple choice response format, and age-appropriate language and examples. Also, because quantification of responses was not an element of counseling, and to shield the adolescent from having to answer potentially uncomfortable questions, there was no requirement to respond to all items. In fact, reluctance to answer certain questions could itself be a source of discussion. Finally, the questionnaire should address not only communicative issues both in and out of school but also social and emotional impact of hearing loss.

With the above issues in mind, the *Self Assessment of Communication (SAC)* and *Significant Other Assessment of Communication (SOAC)* (Schow and Nerbonne, 1982) were judged to be questionnaires that either already met the above criteria or could easily be modified to do so. The SAC and SOAC are each ten-item questionnaires that assess

communication difficulties in various situations, general feelings about the hearing loss, and the perceived attitudes of others toward the individual with hearing loss. Respondents are asked to rate the frequency with which specific behaviors or feelings occur along a five-point continuum ranging from "almost never/never" (one point) to "practically always/always" (five points).

#### **Modification of Original Instruments.**

The SAC and SOAC were modified by the investigator and renamed the *Self-Assessment of Communication—Adolescent (SAC-A)* and *Significant Other Assessment of Communication—Adolescent (SOAC-A)*, after receiving permission from the original authors. Three types of modifications were made to create the new instruments. These involved changes in examples, alterations in language, and the addition of two questions. See Table 1 for a comparison of the original SAC questions and the modified SAC-A questions. The complete questionnaires are shown in Appendix A (SAC-A) and Appendix B (SOAC-A).

#### **Validation of Modifications**

Prior to the administration of the self-assessments, three professionals (one educational audiologist, one school social worker, and one school administrator/teacher of students with hearing loss) rated the validity of the modifications by responding to a three-item questionnaire. A Likert five-point continuum scale was used. The average ratings to all items was 4.8, indicating high face validity for the changes made to these instruments. The questionnaire and mean responses to each statement are shown in Appendix C.

#### **Follow-Up Survey**

A follow-up survey was developed to explore the perceived benefit of the counseling process. The five-question survey was mailed to the adolescent a few weeks after completion of the SAC-A and SOAC-A and counseling session with the investigator. The survey was designed to determine if new information had been learned or if there were any changes in attitude, self-perceptions, or behavior on the part of the adolescent as a result of

**Table 1 Comparison of SAC and SAC-A**

<b>SAC</b>	<b>SAC-A</b>
<b>Do you experience communication difficulties...</b>	<b>Do you experience communication difficulties...</b>
<b>...in situations when speaking with one other person?</b> (for example, at home, at work, in a social situation, with a waitress, a store clerk, with a spouse, boss, etc.)	<b>...when speaking with only one other person?</b> (for example, when talking to: a teacher or classmate; a clerk at a store; a server at a restaurant; a co-worker or your boss; someone providing information/directions, etc.)
<b>...in situations when conversing with a small group of several persons?</b> (for example, with friends or family, co-workers, in meetings or casual conversations, over dinner or while playing cards, etc.)	<b>...when talking with a small group of people?</b> (for example, during holidays or other family gatherings; in language or science labs or in small group discussions; while driving or riding in a car; during extracurricular activities like sports, clubs, etc.)
<b>...while listening to someone speak to a large group?</b> (for example, at a church or in a civic meeting, in a fraternal or women's club, at an educational lecture, etc.)	<b>...when listening to someone speak in a large group?</b> (for example, during class discussions or school assemblies; when taking notes in school; in a house of worship, etc.)
<b>...while participating in various types of entertainment?</b> (for example, movies, TV, radio, plays, night clubs, musical entertainment, etc.)	<b>...while participating in various types of entertainment?</b> (for example, movies, TV, radio/CD's, musical entertainment, plays, shopping, talking with friends, etc.)
<b>...when you are in an unfavorable listening environment?</b> (for example, at a noisy party, where there is background music, when riding in an auto or bus, when someone whispers or talks from across the room, etc.)	<b>...in situations when other people could also have trouble hearing?</b> (for example, at a noisy party; when there is background noise/music; when someone whispers or is soft-spoken; when someone talks while moving around, from a great distance or outdoors; in the hallways at school before, after or between classes; in the cafeteria or gym, etc.)
<b>...when using or listening to various communication devices?</b> (for example, telephone, telephone ring, doorbell, public address system, warning signals, alarms, etc.)	<b>...when using or listening to various communication devices?</b> (for example, telephone, telephone ringing, doorbell, radio, PA system at school, alarms, computer, etc.)
<b>Do you feel that any difficulty with hearing limits or hampers your personal or social life?</b>	<b>Does your hearing loss interfere with your social life?</b>
<b>Does any problem or difficulty with your hearing upset you?</b>	<b>Does any problem or difficulty with your hearing upset you?</b>
<b>Do others suggest that you have a hearing problem?</b>	<b>Do other people ever notice that you have a hearing loss?</b>
<b>Do others leave you out of conversations or become annoyed because of your hearing?</b>	<b>Do you feel left out of conversations or do other people become frustrated when talking to you because of hearing problems?</b>
<b>DOES NOT APPEAR ON ORIGINAL</b>	<b>Do you think that your hearing loss keeps you from doing things that might be fun?</b>
<b>DOES NOT APPEAR ON ORIGINAL</b>	<b>Do people get a wrong impression when they first meet you because of hearing problems?</b>

participating in the project. That questionnaire is shown in Appendix D.

**Procedures**

All adolescents from the caseload of the investigator who met subject criteria, and their parents, were contacted by telephone

and provided a verbal description of the project. After the subject selected a friend with normal hearing to serve as the SO, written assent and consent was obtained from the students and their parents, respectively.

The investigator met independently with each member of the dyad to facilitate

**Table 2 Average (Mean) Responses to Each Question on the SAC-A and SOAC-A**

Question #	1	2	3	4	5	6	7	8	9	10	11	12
Subjects	1.9	2.4	2.1	2.0	2.8	1.9	1.6	1.7	1.2	2.5	2.0	1.4
SOs	1.7	1.7	1.9	1.7	2.6	1.9	1.4	1.5	1.1	1.8	1.2	1.2

completion of the SAC-A or SOAC-A, as appropriate. The investigator then met with the adolescent with hearing loss to examine, compare, and discuss answers provided by both respondents. Both informational and personal adjustment counseling was provided, with the specific content of each session guided by the responses on the questionnaires as well as the interests or concerns acknowledged or suggested by the adolescent. The meeting was audiotaped to facilitate recall of the session. Subsequently, the adolescent was sent the follow-up questionnaire to investigate perceived benefit from the process.

### Analysis

Quantitative data collected from both self-assessment instruments were evaluated to determine the level of correlation (Pearson's  $r$ ) between responses of the subjects and those of their SOs. The transcribed audiotaped interviews were analyzed by the first author as qualitative data according to a file-card protocol described by Denzin and Lincoln (2000). Responses were reviewed to identify recurring themes. As a reliability check, the second author independently analyzed the transcriptions using the same file-card protocol and then compared her results to those obtained by the investigator.

Ordinal data collected from the follow-up questionnaire were computed for mean and range of responses. In addition, the number of adolescents who reported that their participation in the project was a positive experience, that it resulted in changes in behavior or self-perception, that it yielded increased information about their hearing loss or a combination of the above was calculated.

## RESULTS

Of the 20 subjects and their parents who signed assent and consent forms, respectively, five subjects withdrew prior to completion of the project. Reasons for

withdrawal were: a severed friendship with the SO, and no other friend to recruit; parental withdrawal of consent because of emerging school difficulties; unrelated personal or family health issues (two students); and unspecified reasons that the remaining student did not wish to discuss.

### Self-Assessment Questionnaires

Average (mean) responses to each of the 12 questions from the 15 subjects and SOs who completed the project were calculated and are shown in Table 2. Average (mean) responses from each of the Subjects and each of their SOs to all of the questions were calculated and are shown in Table 3. The average responses from both groups and for all questions tended to cluster toward the lower end of the continuum, suggesting only minimal perceived impact of the hearing loss.

Analysis of the degree of agreement between Subjects and SOs revealed only

**Table 3 Average (Mean) Responses from Each Subject on the SAC-A and SOAC-A**

Subjects	SAC-A	SOAC-A
MA	1.4	2.0
TO	2.5	2.1
MS	2.6	1.4
MW	1.5	1.2
LS	2.0	1.4
JA	1.5	1.3
AG	2.1	1.8
ZC	1.4	1.3
LB	1.8	2.3
SV	1.6	1.5
WS	2.3	2.1
MS	3.0	1.3
LE	2.1	2.0
LS	1.7	1.4
ZD	1.8	1.8

**Table 4 Themes Identified Following Qualitative Analysis of Transcripts**


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The Inherent Isolation of Hearing Loss
Identity and Self-Concept
Cosmetics and Other Hearing Aid Issues
Problem Solving
Self-Acceptance

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weak correlation between the two groups for each of the questions. The level of correlation (Pearson's  $r$ ) ranged from  $-.35$  (question 7) to  $+.46$  (question 11). At most, there was only (barely) moderate agreement for one item that inquired into the perceived frequency of feelings of isolation or frustration.

### Qualitative Data

The audiotapes made during the counseling session were transcribed and analyzed in a manner designed to identify themes common to the adolescent subjects. Using a technique described by Denzin and Lincoln (2000), the following themes were identified: the Inherent Isolation of Hearing Loss; Identity and Self-Concept; Cosmetics and Other Hearing Aid Issues; Problem Solving; and Self-Acceptance (see Table 4). The triangulation process (having an independent reviewer read and summarize transcripts) resulted in complete agreement with these themes.

#### *The Inherent Isolation of Hearing Loss*

Feelings of isolation were expressed in two ways: (1) the limited ability of others to understand the experience of being hard of hearing and (2) the limited ability of the adolescents to participate fully in conversations. Twelve of the 15 subjects reported slightly greater impact (one point higher) than their friend on questions that addressed communication difficulties and the feelings that result from having a hearing loss. Those differences were interpreted by the adolescents as reflecting a lack of understanding on the SO's part of the experience of hearing loss. The adolescents' comments included "Well, he knows me pretty well, but he just doesn't always understand what it's like"; "She doesn't understand the effect it's having on a high schooler and I really wish she understood"; "It's just too much. It's kind of frustrating because when they don't understand you have to give more

and more detail each time and then when you run out of detail they still don't understand and you get really frustrated." One subject said that she was not surprised by her friend's underestimation of the communication difficulty caused by her hearing loss because it confirmed her belief that no one really understands her experiences. As much as the students would have liked others to understand their needs, few discuss their hearing loss even with their closest friends. They attributed this to a variety of factors, including the perceived futility of such a conversation or the fact that "it doesn't come up very often."

The isolating feelings caused by hearing loss also included a reported inability to fully participate in conversations or activities. Several students commented on an inability to hear whispered conversations; they reported difficulty participating in conversations if friends speak rapidly or if several people are speaking simultaneously. Some reported frustration because they were unable to learn the lyrics of popular songs as accurately or quickly as their friends. Hearing the dialogue in movies was compromised if the audience was not quiet. One student acknowledged that she often avoids participating in social activities with friends because the communication challenges can be overwhelming.

#### *Identity and Self-Concept*

Comments made by the teens with respect to identity and self-concept addressed how they feel about themselves and what they believe others think of them. Some of them struggle to find their social niche in the hearing world. One adolescent with a mild-to-moderate hearing loss sometimes tells others that she is deaf as an explanation for her communication difficulties. Another believes that life is easier for her (deaf) sister because she has friends with whom she can communicate (in sign language). One student who has the academic credentials and capability to attend his local high school has chosen to attend the high school that houses a program for students who are hard of hearing and deaf so he can be among a critical mass of students and teachers who will understand his communicative needs. Another student subsequently has chosen a similar path because she feels that she "can't

do this by myself anymore.” Some students voiced discomfort with being the only student in their grade or school with hearing loss; others did not find it problematic.

One feeling that predominated was a sense of being judged negatively by others if hearing aids are worn or because of the communication difficulties that accompany hearing loss. Another student feared that if she wore hearing aids, classmates who do not know her well “might start rumors like ‘Oh she’s got a brain problem.’” There was a report by one student of a teacher who “didn’t think I could do as much as I did, so I guess maybe to them the hearing aids meant I was stupid or something, so they didn’t expect much and then when I was one of the best students I guess they were surprised.” A source of concern for most of the students was their need to have information repeated and the accompanying certainty that this was frustrating for their communicative partner. Some of them expressed surprise or relief that friends were not as frustrated as they feared at having to repeat information. Others felt that their friends were denying the frustration the adolescents “knew” they felt. They commented on seeing “weird looks” on their friends’ faces or being ignored if they asked for clarification more than once.

### ***Cosmetics and Other Hearing Aid Issues***

All of the students expressed feelings and attitudes about hearing aids. For the most part, the comments reflected negative attributes frequently associated with the “hearing aid effect.” Hearing aids are the obvious and visible representation of hearing loss. They constantly reminded the students that they have a hearing loss, accentuated their differences from peers, and evoked negative thoughts and statements from others. However, there are other features of hearing aids that contributed to the teens’ attitudes toward using them. Students commented on their physical discomfort; management issues, including fear of losing such expensive items; the minimal communicative benefit they offer some students with a milder degree of hearing loss; the fact that hearing is not restored to normal; and the questions they evoke from others (“Sometimes I hate having to wear the hearing aids and I hate having to explain to people ... they’re just like a hazard to me”).

### ***Problem Solving***

Students identified communication style or environmental factors as potential sources of listening difficulty. A rapid rate of speaking, a whispered voice, or facing away from the student can interfere with understanding. The presence of background noise or competing conversations was also a frequent source of communicative frustration.

To address these difficulties, some of the students accessed one or more classroom and teaching accommodations, including assistive listening devices, closed captioning, previewing of videos, flexible classroom seating, or notetakers. They often reported academic settings to be less communicatively challenging or frustrating than social ones. In the latter situations, the technique they most often employed to facilitate communication was asking for information to be repeated, albeit reluctantly. One student acknowledged that she sometimes tries to monopolize conversations.

### ***Self-Acceptance***

A variety of emotions and attitudes regarding self-acceptance and denial of hearing problems emerged during the counseling session. Some students blamed others for their communicative challenges. Even when acknowledging listening difficulties, one student attempted to convince the investigator that it did not bother him, stating, “I could tell you day and night about all the things I’m missing, but it’s not a big deal ... I mean I could tell you a million things that I can’t understand, but it’s okay.”

There was a sense of resignation on the part of some of the students that they would not always be able to hear everything. One student who relied on closed captioning said that if it is not available “Well, then I don’t understand.” Another student reported being challenged by a teacher who wanted to know why she needed closed captioning. She said, “I’m like forget it, it’s not going to be on the test anyway and it bothers other people when the closed captioning is on so just forget it.” Although most students expressed a desire to have normal hearing, a few expressed an emerging acceptance of the hearing loss. One student described the constant and daily effort she puts forth to understand conversations as something she simply has to do. Another student expressed an attitude

**Table 5 Average (Mean) Responses and Range of Responses for Each Statement**

Questions:	Mean	Range
1. I learned new information about my hearing loss.	3.53	1-5
2. I have changed, or will think about changing, my behavior with respect to my hearing loss.	2.73	1-5
3. I feel differently about myself as a person with a hearing loss.	2.53	1-5
4. Talking about my hearing loss has been helpful.	3.4	1-5
5. I would like to have more opportunities to talk about my hearing loss.	2.8	1-5

of acceptance about being the only student in her school with a hearing loss: "My parents all my life have said I'm very unique. I'm very special and having hearing aids just kind of adds to it and makes me feel good that I'm different."

### Follow-Up Questionnaire

The follow-up questionnaire, shown in Appendix D, asked the students to rate along a five-point continuum the extent to which new information was learned, behavior had been or would be changed, self-perceptions were altered, the counseling session was beneficial, and additional opportunities for discussion would be helpful. The two lowest ratings (1 or 2) indicated that no benefit was conferred or no changes occurred. The two highest ratings (4 or 5) indicated that benefit was conferred or changes occurred. A middle rating (3) implied neutrality of opinion.

Average responses from all subjects to each question were calculated and are shown in Table 5. These averages clustered around a neutral opinion, but individual responses ranged along the entire continuum. In addition to disguising this response variability, use of mean values masked each subject's perception of the value of participating in the project. Twelve of the 15 students (80 percent) responded to at least one question with a high rating of four or five. Of those 12, 10 (60 percent of total) responded to more than one question with the two highest ratings. Learning new information about their hearing loss was the most commonly reported outcome (9 of 15 participants). There was no apparent linkage between the statements. For example, deriving benefit from the counseling session

did not necessarily result in changes in behavior.

### DISCUSSION

Comparison of responses provided by adolescents with hearing loss and a friend on the *Self Assessment of Communication—Adolescent* and the *Significant Other Assessment of Communication—Adolescent*, respectively, revealed that the degree of correlation between the two groups of teens (-0.35 to +0.46) was low and similar to that reported by previous authors (McCarthy and Alpiner, 1983; Kopun and Stelmachowicz, 1998). Some authors have suggested that an actual or suspected low correlation between subject and SO may be a reflection of one partner's lack of understanding or unwillingness to acknowledge the impact of the hearing loss (Schow and Nerbonne, 1982; McCarthy and Alpiner, 1983; Newman and Weinstein, 1988; Hallberg, 1996). Often, it is believed that the individual with hearing loss is underestimating, or denying, its impact. For the present study, the poor correlations between subject and SO responses did not reflect a pattern of under- or overreporting the impact of the hearing loss on the part of the adolescents. One conclusion that may be drawn from the available data is that it is not possible to predict the comparative perceptions of adolescents and their friends regarding the impact of hearing loss. As a group, these adolescents did not attempt to hide or deny the effects of their hearing loss on communication, socialization, or emotional well-being. In fact, the teens tended to rate impact as being slightly greater than did their friends.



## The Counseling Process

Information revealed during the counseling sessions suggested that the adolescents' responses on the questionnaires masked emotions and attitudes that could be uncovered only through dialogue. As a group, these 15 adolescents who are hard of hearing appeared to be struggling, with varying degrees of success, with the effects of their hearing loss on communication, socialization, identity, and self-acceptance.

Hearing aids and communication difficulties were recurring themes during discussions with this group of teens. They all spoke of being "left out" of conversations, especially in social situations, regardless of their decision to use amplification. When discussing the relationship between communication difficulties and decisions regarding hearing aid use, they alluded to "cost/benefit" issues (Kelly and Thibault, 1978): for some, the perceived high social/emotional "cost" of wearing hearing aids is not worth the acknowledged communicative "benefit." The teens who ceased using hearing aids did not necessarily do so because they underestimated the listening difficulties they experienced. On the contrary, most were keenly aware of their communication challenges. This suggests that attempts to persuade teens to re-initiate hearing aid use by focusing primarily on communication issues may be fruitless; this approach does not necessarily address the social or emotional factors that may be playing a more prominent role.

Reports in the literature regarding the "hearing aid effect" suggest that these adolescents were not entirely wrong when they talked about the negative aspects of hearing aid use (Blood et al, 1978; Dengerink and Porter, 1984; Stein et al, 2000). The undesirable inferences drawn by others regarding individuals who wear hearing aids can prompt the use of more cosmetically appealing instruments. Nodar and Sahley (2001) suggested more liberal use of CIC hearing aids by children and adolescents for this reason. Although the instruments are a clear signal of students' differences during a time in their life when they seek to be like their peers, it would be naïve to assume that elimination of cosmetic issues will automatically result in an increase in hearing aid use on the part of adolescents. Wearing

hearing aids may trigger emotions and behaviors that are more complex than those resulting from cosmetic issues. Results of a study by Doggett et al suggested that, even when hearing aids are not noticed by others, some individuals who wear them project "less confidence, friendliness and intelligence in their outward behavior, indicating a more negative self-image" (1998, 365). It is these personality traits that can result in negative judgments by others, not the presence of the hearing aids. Wearing hearing aids may result in adolescents feeling negatively about themselves during a time in their life when they seek to feel accepted, attractive, and more alike than different. The instruments may be invisible, and may help the adolescents communicate better, but they do not necessarily help them feel better about themselves.

Many adolescents have learned that feeling "left out" is a natural consequence of having a hearing loss. While that feeling may be diminished through hearing aid use, it is never eliminated entirely. The inability of hearing aids to transform the student into a person with normal hearing not only was a factor in hearing aid usage but also impacted identity and self-acceptance. Students who are hard of hearing communicate through an impaired sensory system. These students are not "partially Deaf"; they are "imperfectly Hearing" and are faced with the task of obtaining auditory closure to ensure successful communication. As is true for all adolescents, those with hearing loss are seeking to learn who they are and where they belong; some may come to the realization that there is no group, either hearing or Deaf, in which they have full-fledged membership. Although the students believed there is no one who understands the difficulties they face, they were unwilling or unable to discuss their hearing loss and associated feelings, even with people they consider to be friends. Similarly, they were almost unanimous in their feelings of aversion toward strangers or casual acquaintances who ask questions about their hearing loss or hearing aids. These conflicting beliefs ("No one understands how I feel, but I can't or won't explain it to others") probably contributed to the feelings of frustration, anger, or sadness that were expressed in the counseling session.

Despite the melancholy emotions that surfaced, there also were feelings of self-acceptance and optimism. Some students indicated that they would not allow their hearing loss to prevent them from reaching goals. Others expressed the thought that the challenges they faced and conquered made them stronger. Most high school students expressed an intention to attend college. They professed interest in careers or professions that would not place high demands on spoken communication skills.

### **Perceived Benefits of Counseling**

Based on their responses in a Follow-Up Questionnaire, 80 percent of the students who participated in the project derived benefit from the counseling session. It had been hypothesized that one outcome of participation would be changes in behavior regarding the management of the hearing loss. However, this was not commonly reported, as only four students (27%) indicated this to be true, at least shortly following administration of the SAC-A and SOAC-A. It would be worthwhile to determine whether more change occurred over time, as subjects had more opportunity to consider these discussions. It is a well-known observation that awareness of a situation does not necessarily lead to behavioral changes (Cormier and Hackney, 1999). Audiologists interested in promoting change would need to consider additional interaction with teens, for example, using interactive workshops to help teens not only conceptualize problems but also set goals, self-evaluate, reflect, and use other "process strategies" designed to affect behavioral change. These strategies are not beyond the scope of audiology, although audiologists may feel the need for supportive training to prepare for these interventions.

Audiologists who have the opportunity to work with adolescents should feel encouraged by the information revealed in this project. The fact that 8 of the 15 participants reported that it was helpful to talk about their hearing loss suggested that this is a need that may be unfulfilled for some adolescents. Dialogue with the adolescent may offer the audiologist a roadmap for counseling by identifying the individual teen's concerns more accurately and directly. English, in providing practical

counseling strategies, stated that the emotional and psychological difficulties associated with hearing loss "are alleviated, not by the world's most sophisticated hearing aid, but by the personal adjustment support provided by the audiologist" (2001b, 10).

### **Suggestions for Future Research**

Areas in which future research is needed include additional evaluation of the SAC-A and SOAC-A to (1) examine its reliability and validity, (2) explore the degree to which individual questions contribute to the counseling process, and (3) investigate the extent to which the language and situational examples used are relevant, consistent, and self-explanatory. Fewer questions or more homogeneous examples in the communication domain and more questions about hearing aid use might prove enlightening.

It appeared that an SO component to a self-assessment questionnaire for adolescents facilitated the counseling process, since comparison of responses was frequently an incentive for discussion. The feasibility of obtaining information from an SO through a means other than direct contact needs to be explored to facilitate clinical utility.

Because of the small number of students in this project, it was not possible to determine if degree of hearing loss, gender, age, or hearing aid style was a significant factor in the responses given or information shared. Replication of this project with larger numbers of students may shed light on this.

Finally, there needs to be ongoing support for audiologists and training programs regarding the provision of personal adjustment counseling. Both classroom and practical experience in counseling are essential components of the education of audiologists. Practicing audiologists need more information about ways to easily and effectively incorporate informational and affective counseling into their service delivery. English (2001b) stated that some audiologists have reported that implementation of counseling strategies rarely resulted in increased appointment time; it may actually save time by focusing on issues that are important to the patient. The benefit of using a questionnaire to facilitate counseling needs to be explored with audiologists. They may feel more comfortable embracing the role of counselor if provided with the structure that

a questionnaire provides. Recognition of the difference between psychotherapy and counseling (Clark, 1994), or professional and nonprofessional counseling (English, 2000), might also be enlightening. These models presume the need to provide support around specific issues to individuals who are emotionally healthy. Audiologists should not have the expectation, or fear, that they should be managing complex emotional, psychosocial, or interpersonal problems.

There should be little doubt that the audiologist's technical ability to explain audiograms and program hearing aids will not ensure successful rehabilitation of individuals with hearing loss. This may be particularly true for adolescents as they struggle to address complex developmental issues that not only are influenced by hearing loss but also influence hearing loss management. Using a self-assessment questionnaire as a counseling tool can provide the adolescent and audiologist with a relatively nonintrusive means of stimulating conversation. It can capitalize on teens' increased interest in self-reflection, greater capacity to think hypothetically, and growing problem-solving skills (Peterson and Leffert, 1995). It may also provide audiologists with a perspective on factors that influence the management decisions that each adolescent makes regarding the hearing loss. Adolescents may strive to be indistinguishable from their peers with normal hearing, but they each have a unique story that many of them would like to tell.

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**APPENDIX A**

**Questions from the**

***SELF-ASSESSMENT OF COMMUNICATION—ADOLESCENT (SAC-A)\****

**1 = almost never 2 = occasionally 3 = about half the time 4 = frequently 5 = almost always**

Please select the appropriate number to answer the following questions:

1. Do you experience communication difficulties in situations when speaking with only one other person? (for example, when talking to: a teacher or classmate; a clerk at a store; a server at a restaurant; a co-worker or your boss; someone providing information/directions, etc.)

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2. Do you experience communication difficulties when talking with a small group of people? (for example, during holidays or other family gatherings; in language or science labs or in small group discussions; while driving or riding in a car; during extracurricular activities like sports, clubs, etc.)

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3. Do you experience communication difficulties when listening to someone speak to a large group? (for example, during class discussions or school assemblies; when taking notes in school; in a house of worship, etc.)

---

4. Do you experience communication difficulties while participating in various types of entertainment? (for example, movies, TV, radio/CD's, musical entertainment, plays, shopping, talking with friends, etc.)

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5. Do you experience communication difficulties in situations when other people could also have trouble hearing? (for example, at a noisy party; when there is background noise/music; when someone whispers or is soft-spoken; when someone talks while moving around, from a great distance or outdoors; in the hallways at school before, after or in between classes; in the cafeteria or gym, etc.)

---

6. Do you experience communication difficulties when using or listening to various communication devices? (for example, telephone; telephone ringing; doorbell; radio; PA system at school; alarms; computer, etc.)

---

7. Does your hearing loss interfere with your social life?

---

8. Does any problem or difficulty with your hearing loss upset you?

---

9. Does the hearing loss keep you from doing things that might be fun?

---

10. Do other people ever notice that you have a hearing loss?

---

11. Do you feel left out of conversations or do other people become frustrated when talking to you because of hearing problems?

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12. Do people get a wrong impression when they first meet you because of hearing problems?

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\*Modified, with permission, from *Self Assessment of Communication* (Schow and Nerbonne, 1982).

**APPENDIX B**

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**Questions from the  
SIGNIFICANT OTHER ASSESSMENT OF COMMUNICATION—ADOLESCENT (SOAC-A)\*  
1 = almost never 2 = occasionally 3 = about half the time 4 = frequently 5 = almost always**

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Please select the appropriate number to answer the following questions:

1. Does your friend experience communication difficulty when speaking with only one other person? (for example, when talking to: a teacher or classmate; a clerk at a store; a server at a restaurant; a co-worker or boss; someone providing information/directions, etc.)
2. Does your friend experience communication difficulty when talking with a small group of people? (for example, during holidays or other family gatherings; in language or science labs or in small group discussions; while driving or riding in a car; during extracurricular activities like sports, clubs, etc.)
3. Does your friend experience communication difficulty when listening to someone speak to a large group? (for example, during class discussions or school assemblies; when taking notes in school; in a house of worship, etc.)
4. Does your friend experience communication difficulty when participating in various types of entertainment? (for example, movies, TV, radio/CD's, musical entertainment, plays, shopping, talking with a group of friends, etc.)
5. Does your friend experience communication difficulty in situations when other people could also have trouble hearing? (for example, at a noisy party; when there is background noise/music; when someone whispers or is soft-spoken; when someone talks while moving around, from a great distance or outdoors; in the hallways at school before, after or between classes; in the cafeteria or gym, etc.)
6. Does your friend experience communication difficulty when using or listening to various communication devices? (for example, telephone; telephone ringing; doorbell; PA system at school; alarms; computer, etc.)
7. Does the hearing loss interfere with your friend's social life?
8. Does any problem or difficulty with hearing upset your friend?
9. Does the hearing loss keep your friend from doing things that might be fun?
10. Do other people notice that your friend has a hearing loss?
11. Is your friend left out of conversations, or do people become frustrated trying to communicate with your friend because of hearing problems?
12. Do people get a wrong impression when they first meet your friend because of hearing problems?

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\*Modified, with permission, from *Significant Other Assessment of Communication* (Schow and Nerbonne, 1982).

**APPENDIX C**

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Statements used to rate content validity of self-assessments and their mean responses (1–5 scale, 5 indicating “strongly agree”):

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1. This scale addresses typical social concerns faced by adolescents with hearing loss. (5.0)

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2. This scale addresses typical communication concerns faced by adolescents with hearing loss. (5.0)

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3. This scale can be read and understood by the typical adolescent in our region. (4.3)

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**APPENDIX D**

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**Follow-Up Questionnaire**

**1 = strongly disagree 2 = disagree 3 = no opinion 4 = agree 5 = strongly agree**

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Please select the appropriate number in response to the following statements:

1. I learned new information about my hearing loss (for example, I have more/less trouble hearing people than I thought; my friends think my hearing loss affects me more/less than I do, etc.).

---

2. I have changed, or will think about changing (for example, I'll use notetakers, double-check instructions with a teacher, re-position myself to see/hear better; I'll look into wearing hearing aids, or wear them more consistently; I'll use an assistive listening device; I'll tell people different things they can do to make communication easier for me, etc.).

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3. I feel differently about myself as a person with a hearing loss (for example, my hearing loss affects my relationship with my friends more/less than I thought; my hearing loss affects my social life or school more/less than I thought; my hearing loss is more/less obvious to other people than I thought, etc.).

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4. Talking about my hearing loss has been helpful.

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5. I would like to have more opportunities to talk about my hearing loss.

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