I, April J. Myers, hereby submit this as part of the requirements for the degree of:

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in:

Audiology

It is entitled:

An Investigation of the Differences in Perceived Hearing Disability Between Elderly Hearing Aid Candidates and Their Significant Others Using the Client-Oriented Scale of Improvement and the Self-Assessment of Communication/Significant Other Assessment of Communication

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An Investigation of the Differences in Perceived Hearing Disability Between Elderly Hearing Aid Candidates and Their Significant Others Using the Client-Oriented Scale of Improvement and the Self-Assessment of Communication/Significant Other Assessment of Communication

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by
April J. Myers
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Committee Chair: Doug Martin, Ph.D.
Abstract

The purpose of this study was to investigate the perceptions of elderly hearing aid candidates and their significant others regarding perceived hearing disability using the Client-Oriented Scale of Improvement and the Self-Assessment of Communication/Significant Other Assessment of Communication to see if there are, in fact, remarkable differences in their responses. Forty-two subjects (21 couples) who met the inclusion criteria were given two questionnaires: (1) the COSI, and (2) the SAC/SOAC. The results of the Pearson Correlation suggest that there was a significant difference in perceived hearing disability between each couple using the SAC/SOAC; however, there was minimal differences in their responses to the COSI. Results may have been affected due to the subjective nature of that questionnaire. Future studies should use careful consideration as to which self-report measures to use and be more explicit with regards to the instructions.
Acknowledgments

I would like to thank my family and friends for all of their love and support, especially my mom who helped me recruit subjects when I was struggling to find some. I would like to thank Dr. Doug Martin for all of his help and guidance with this study. He took a great interest in this idea and contributed a lot of his time to guide me through it. My sincere appreciation goes to Wendy Steuerwald and Gina Montuoro for their assistance. A special thanks goes to Maureen Sullivan-Mahoney who was instrumental in developing the idea for this study and who has offered me constant guidance and support over the past two years. I have learned more from her than she’ll ever know.
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Chapter I

Introduction

Rationale

Even when it seems like all of the goals for hearing, such as audibility and word recognition, have been met by hearing aids, patients might still express dissatisfaction with their hearing aids. It is important to recognize that patient satisfaction is comprised of other factors besides benefit and the concept of normalcy which the patients strive for may differ from what the audiologist or normal-hearing person might consider normal. Counseling based on self-assessment questionnaires can help overcome patient complaints and meet patient goals and expectations, (Hoover-Steinwart, 2001).

People in denial of a hearing loss often create conflicts with their significant others. Significant others are most often spouses, but may also include siblings, children, other family members, and friends. As stated by Erdman (1994), “the reports of significant others are invaluable in corroborating self-report data and in evaluating the effects of hearing impairment on family dynamics,” (p.82). Since significant others usually spend the most time with the client, they know first hand the effects of the hearing loss and it would, therefore, make sense to consult with them.

The purpose of this study is to compare the responses to the Client Oriented Scale of Improvement (COSI) and the Self-Assessment of Communication (SAC)/Significant Other Assessment of Communication (SOAC) between elderly hearing aid candidates and their significant others to see if there are remarkable differences in perceived hearing disability.
Research and Null Hypotheses
In this study, the differences in perceived hearing disability between elderly hearing aid candidates and their significant others were investigated.

Null Hypothesis:
There will be no differences in perceived hearing disability between elderly hearing aid candidates and their significant others in responses to the Client Oriented Scale of Improvement (COSI) and the Self-Assessment of Communication (SAC)/Significant Other Assessment of Communication (SOAC), except due to chance.

Research Hypothesis:
There will be differences in perceived hearing disability between elderly hearing aid candidates and their significant others in response to the Client Oriented Scale of Improvement (COSI) and the Self-Assessment of Communication (SAC)/Significant Other Assessment of Communication (SOAC), more than expected by chance.

Experimental Design
Subjects completed two separate questionnaires. The first questionnaire, the SAC/SOAC, was an easy-to-administer 10-item inventory which posed questions for the hearing-impaired person’s response. The questions were related to the subject’s ability to communicate in various situations, and assessed the subject’s feelings about the hearing problem and the reactions of others with whom he or she interacts. Responses ranged from 1 (never) to 5 (always), and an overall total score was derived for interpretation. This questionnaire also included a separate portion for the significant other to complete. It contained the same 10 items,
except the behaviors were rated by the significant other. The second questionnaire, the COSI, asked each subject to rank from 1 (needing the most improvement) to 5 (needing the least improvement) five listening situations in which he/she felt the hearing aid candidate needed the most improvement.
Chapter II

Literature Review

Hearing aids are sound amplifiers. They amplify sound to a level where a hearing-impaired person can detect and hopefully make effective use of the acoustic signal. There are five basic components of hearing aids. The microphone converts acoustic signals into electrical signals. The amplifier amplifies the electrical signal. The battery supplies power to the hearing aid. User controls influence the operation of the hearing aid and can be changed by the user or the hearing healthcare professional. Finally, the receiver converts the electrical signal back into an acoustic signal.

Though it may seem as if all of the goals for hearing, such as audibility and word recognition, have been met by the hearing aids, patients may still express dissatisfaction with their hearing aids. It is important to recognize that patient satisfaction is comprised of factors besides simple benefit and the concept of normalcy, such as comfort, self-esteem, and quality of life, which the patients strive for, may differ from what the audiologist or normal-hearing person might consider normal, (Hoover-Steinwart, 2001).

People in denial of a hearing loss often create conflicts with their significant others. These conflicts may result from unacknowledged communication breakdowns. Significant others are most often spouses, but may also include siblings, children, other family members, and friends. Erdman (1994) mentions that the reports of significant others are invaluable in corroborating self-report data and when evaluating the effects of hearing impairment on family dynamics. Results from a 1993 study by Chmiel & Jerger reflected a significant discrepancy between the handicap as self-reported by the patient and the handicap as reported by the significant other. Overall, patients reported significantly less hearing handicap than did their
significant others, (Chmiel & Jerger, 1993). The Hearing Handicap Inventory for the Elderly (HHIE) was used in that study to assess hearing handicap.

Counseling based on self-assessment questionnaires can help overcome patient complaints and meet patient goals and expectations. It can also improve the patient’s relationships with significant others. There are several examples of these self-assessment questionnaires: The Hearing Handicap for the Elderly (HHIE) contains 25 items and two subscales, one consisting of social-situational items, and the other items measuring emotional responses. It assesses the perceived effects of hearing impairment on the emotional and social adjustment of elderly patients. The Abbreviated Profile of Hearing Aid Benefit (APHAB) is a brief self-assessment inventory that can be used in conjunction with hearing-aid fittings. It is a 24-item questionnaire, with a 7-point scale for answers. The APHAB can be used to quantify hearing-related problems that the client experiences with and without hearing aids, as well as hearing-aid benefit, (Schow & Nerbonne, 1996). The Communication Scale for Older Adults (CSOA) is a self-assessment scale which evaluates the strategies of communication and attitudes of older, independent patients (Kaplan, Bally, Brant, Busacco, & Pray, 1997). It was designed to “evaluate positive and negative communication strategies; perceived attitudes and behaviors of family, friends, and others; and interpersonal and emotional factors related to communication” (Kaplan et al., 1997, p.204). The Denver Scale of Communication Function (DSCF) is a 25-item scale that queries adults with hearing impairment on the impact of hearing loss in a variety of experiential areas. It is recommended that patients complete the scale within a 15-minute time limit to encourage first-impression responses (Sandlin, 2000). The Hearing Performance Inventory (HPI) is designed to assess a patient’s hearing performance in a variety of everyday listening situations to determine areas of communication breakdown (Sandlin, 2000).
Over the past decade, it has become increasingly popular and widely acceptable to measure the outcome of the hearing aid fitting process using structured patient questionnaires, (Schum, 1999). Hearing handicap can be assessed before and after a period of hearing aid use with the differences indicating the subjective benefit or relative change in self-perceived handicap, (Humes, 1999). While audiometric tests assess maximum potential or best performance of the central or peripheral hearing mechanism, self-report instruments assess typical performance in behavioral utilization of hearing ability (Erdman, 1994). When completing self-report measures, clients are instructed to identify situations that are typically difficult, how they usually perform, or how often a particular hearing problem occurs. Therefore, self-report instruments may more accurately assess the dimensions of hearing disability and handicap. While audiometric tests are direct measurement procedures and are designed to measure maximum ability and provide a basis for an assessment of hearing impairment, self-report instruments are indirect measurement procedures and are designed to assess typical performance and provide a basis for determining hearing disability and hearing handicap, (Erdman, 1994).

There are many benefits to using self-assessment measures. They are easy and inexpensive to administer. Most consist of questionnaire formats which the patient and sometimes significant other can easily complete. In addition, these measures can be used with a wide range of populations and for a wide variety of purposes. Most importantly, they are often noninvasive and non-threatening to the patient, (Erdman, 1994). When self-report measures address problems clients have experienced, they have good face validity, (Erdman, 1994). This concept promotes a cooperative attitude in respondents as the task is perceived as relevant and is, therefore, valuable from a public relations standpoint.
Though the role of self-assessed handicap in understanding the communication difficulties encountered by elderly people is important, it is of interest to investigate the influence of variables thought to be relevant to such assessments. These can include audiometric variables such as degree of loss, slope of loss, problems in speech understanding and central auditory processing disorders as well as extra-auditory variables, especially cognitive deficits, (Chmiel & Jerger, 1993). Another dimension of the self-assessment problem includes the difference between the patient’s judgment of his or her handicap and the judgment of the patient’s significant other. Optimal comprehension of the nature of a person’s hearing problem and the benefits or limitations anticipated from intervention demands not only an appreciation of how that person perceives his or her problem but also how others in that person’s immediate environment perceive the problem. Thus, Newman & Weinstein (1988) and Schow & Nerbonne (1982) have suggested that, ideally, one should compare the patient’s perception of handicap with a similar judgment made by a significant other (i.e., the patient’s spouse, companion, friend, etc.), (Chmiel & Jerger, 1993). However, few studies have apparently reported such comparisons.

Many studies have investigated the relationship between personality variables and self-reports of hearing disability and/or handicap, (Cox, Alexander, & Gray, 1999). Gatehouse (1990) discovered that hearing-impaired individuals who are more neurotic/anxious reported greater hearing disability. Saunders and Cienkowski (1996) reported a significant relationship between anxiety and self-assessed hearing handicap. Downs et al (1989) found that self-assessed hearing handicap seemed to be related to introversion/extroversion scores for a group of hearing-impaired adults. According to Cox, Alexander, & Gray (1999), in general, personality attributes
have been seen to make a modest but significant contribution to disability or handicap scores even after accounting for the effects of differences in audiologic impairment.

The terms self-report and self-assessment are often used interchangeably, but they can have different connotations. Self-report can refer to client diary or journal entries, interview data, and responses to open-ended questions (Erdman, 1994). However, the term self-assessment can cover broad areas such as assessment of personality, overall adjustment, and communication handicap, or they can be designed to assess more specific areas such as anxiety, depression, and hearing aid benefit.

The Client-Oriented Scale of Improvement (COSI) is a subjective self-report measure. When completing the first section of the COSI, clients are asked to list five specific listening situations in which they feel they need improvement. They are also asked to indicate the order of significance for each of these situations. Self-report measures, such as the COSI, have the potential to reflect the clients’ assessments of the benefit they have received from rehabilitation because they allow the client to independently complete the form and state his/her own ideas and feelings, and this benefit may be expressed in terms of decreased disability or decreased handicap, (Dillon, James, & Ginis, 1997).

There are five major reasons that the COSI is recommended for routine clinical use. First, the method fits into a well-conducted clinical interview in an unintrusive manner, and it is crucial that the patient does not feel threatened. Secondly, the client’s responses are more likely to be diagnostically useful to the clinician than would be the responses of a much longer questionnaire. Shorter questionnaires tend to be much easier for patients to complete and are thus more accurate. Third, the correlation between the COSI improvement measure and the consensus measure is reasonable. Fourth, its test-retest reliability is reasonable. Finally,
clinicians rate the COSI method as being useful and convenient for them to use (Dillon, James, & Ginis, 1997). Compared to several other measures of benefit from and satisfaction with rehabilitation, the COSI is recommended as the most useful clinical measure of rehabilitation outcomes because it is not intrusive in the rehabilitation process and because its use has the potential to positively affect the rehabilitation process for individual clients, (Dillon, James, & Ginis, 1997).

The Self-Assessment of Communication (SAC) is an objective self-report measure. It is an easy-to-administer 10-item inventory which poses questions for the response of the person with hearing impairment. The questions are related to the subject’s ability to communicate in various situations, and it assesses the subject’s feelings about the hearing problem and the reactions of others with whom he or she interacts. Responses range from 1 (never) to 5 (always), and an overall total score is derived for interpretation. It is a quick and unintrusive way to gain useful information about the patient’s auditory self-perception. Using a quantifiable test battery, such as the SAC, helps set up guidelines for what constitutes normal overall communication functioning, to which individual patient responses can be compared (Sandlin, 2000).

The SAC has a companion scale called the Significant Other Assessment of Communication (SOAC). The SOAC contains the same 10 items, except the behaviors are rated by a significant other, such as a spouse. Use of the SOAC “provides another perspective on the hearing impairment, which supports the patient’s perceptions or serves as a counseling tool in cases of denial,” (Sandlin, 2000, p.508). These measures have become successful tools in assessing hearing aid candidacy, (Schow & Nerbonne, 1996).
Chapter III

Methods

All data was obtained from a sample of subjects who fit the inclusion criteria. Originally, data was to be collected from the Hearing, Speech, & Deaf Center of Greater Cincinnati, but a lack of subject availability forced the investigator to find subjects elsewhere. Subjects were recruited from acquaintances and co-workers known personally to the principal investigator. Each subject was given a packet which contained a consent form, eligibility questionnaire, and two data questionnaires. If the subjects gave their consent and fit all inclusion and none of the exclusion criteria, they completed the questionnaires for the study. Some questionnaires were completed in the presence of the principal investigator and assistance was provided with difficulties they may have encountered. Others were mailed to subjects.

Subject Characteristics:

To be considered for inclusion in this study, the hearing aid candidates were at least 50 years old and must have been married or had lived with a significant other for at least 5 years. Also, if the subject already had a hearing aid, it was for 3-6 months or less. The only exclusion criteria consisted of evidence of dementia, which was determined based on investigator's discretion. Copies of the SAC/SOAC and COSI were administered to twenty-one couples (42 subjects). There were two groups of subjects: (1) the hearing aid candidates and (2) the significant others. The sample included twenty-one males and twenty-one females. Of the hearing aid candidates, 17 were male and 4 were female. The mean age of the hearing aid candidates was 61 years (range from 50 to 87 years of age), and the mean age of the significant others was 60 years (range from 50 to 88 years of age). Twenty of the couples were spouses and one was a mother/son relationship. For this dyad, the hearing aid candidate was 68 years old and...
the significant other was 50 years old. The mean length of time in which these couples had lived together was 36 years.

**Instrumentation**

**Client-Oriented Scale of Improvement (COSI):** Subjects were asked to rate the top five listening situations in which they felt they needed the most improvement. An example list of situations was provided to assist the subjects in completing this section since some expressed difficulty.

**The Self-Assessment of Communication (SAC/ SOAC):** Subjects were asked to rate themselves from 1 (never) to 5 (always). Significant others were asked to rate the subject from 1-5.
Chapter IV

Results

In the analysis of the SAC/SOAC, the hearing aid candidates had a mean score of 22.52 and a standard deviation of 7.13, while the significant others had a mean score of 29.10 and a standard deviation of 7.63. In order to analyze performance differences between the two groups on the SAC/SOAC, a t-test for related measures was calculated by comparing the data from the two groups as a whole. The of the t-test was not significant (t = .006; p>.05).

To further analyze the response patterns of the couples, a Pearson Correlation was completed. Table 1. displays the scatter plot of these data. The r value was .24, which was not significant at the .05 level indicating no significant relationship between these data sets.

Table 1.

The table below displays the lack of correlation between hearing aid candidates and their significant others in response to the SAC/SOAC. The scattered data shows no significant relationship between perceptions of the two groups.
An item analysis was undertaken with the SAC/SOAC to determine differences between the groups. There were four questions on the SAC/SOAC in which responses of the two groups seemed to differ the most. They were: (1) Does he/she experience communication difficulties when using or listening to various communication devices (an estimation of communication in various environments) (2) Do you feel that difficulty with his/her hearing limits or hampers his/her personal or social life? (3) Do any problem or difficulty with his/her hearing upset you? (both of these look at the patient’s overall feelings about the hearing handicap) and (4) Do others leave him/her out of conversations or become annoyed because of his/her hearing? (assessment of the patient’s perception of other people’s impression of the hearing loss).

For 17 of the couples, the results of the COSI between the hearing aid candidates and their significant others were very similar in prioritized order and content. Only four couples had significantly differing responses (see Table 2.).

Table 2.
The table below displays the differences in responses to the COSI between hearing aid candidates and their significant others.

<table>
<thead>
<tr>
<th>1. Hearing aid candidate: hearing at work (in meetings, PA system, radio)</th>
<th>Significant other: television, telephone, in background noise</th>
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<td>2. Hearing aid candidate: noisy situations/background noise</td>
<td>Significant other: quiet situations, such as using the telephone and one-on-one situations.</td>
</tr>
<tr>
<td>3. Hearing aid candidate: noisy situations/background noise</td>
<td>Significant other: quiet situations, such as using the telephone and one-on-one situations.</td>
</tr>
<tr>
<td>4. Hearing aid candidate: in noise and when people whispered or turned their head from her to talk</td>
<td>Significant other: quiet one-on-one situations, television</td>
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The hearing aid candidate in the first couple reflected having problems at work while his significant other did not list that as a problem. However, she is not around him in that particular environment. The hearing aid candidates in the next two couples felt that they had the greatest difficulty in noisy situations while their significant others felt they had more difficulty in quiet situations. However, the hearing aid candidate in couple #12 felt she had the most trouble in noise and when people whispered or turned their head from her to talk while her significant other felt she had more trouble in quiet one-on-one situations.
Chapter V

Discussion

Differences in perceived hearing disability between elderly hearing aid candidates and their significant others:

The differences in perceived hearing disability between elderly hearing aid candidates and their significant others using the SAC/SOAC was examined using a t-test and the Pearson Correlation. The statistical analysis showed no significant relationship between the two groups as a whole. However, the analysis of the Pearson Correlation did not reveal a statistically significant finding. Therefore, the lack of correlation indicates that for this sample the hearing aid candidate may in fact perceive his/her hearing disability differently than does his/her significant other. In my opinion, the SAC/SOAC is an excellent objective self-report tool to use for hearing aid candidates and their significant others. It is quick and easy, and none of the subjects had difficulty completing it.

The finding of this study is similar to that reported by Chmiel & Jerger (1993). Results from their study reflected a significant discrepancy between the handicap as self-reported by the patient and the handicap as reported by the significant other. Overall, patients reported significantly less hearing handicap than did their significant others. There were four questions on the SAC/SOAC that responses of the two groups seemed to differ the most. This was not surprising in that these particular situations it would be harder for the hearing aid candidate to recognize these problems or pick up on the attitudes of others than it would the significant other. Though the results of the SAC/SOAC reflected a significant difference in perceived hearing disability between elderly hearing aid candidates and their significant others, the results of the COSI did not. For 17 of the couples, the results of the COSI between the hearing aid candidates and their significant others were very similar in prioritized order and content. Only four couples
had significantly differing responses. The hearing aid candidate in the first couple reflected having problems at work while his significant other did not list that as a problem. This would not have been an expected response anyway since she is not around him in that environment. The hearing aid candidates in the next two couples felt that they had the greatest difficulty in noisy situations, such as restaurants and parties, while their significant others felt they had more difficulty in quiet situations, such as using the telephone and one-on-one situations. However, the hearing aid candidate in couple #12 felt she had the most trouble in noise and when people whispered or turned their head from her to talk while her significant other felt she had more trouble in quiet one-on-one situations and listening to the television. These differences may have been due to the fact that the subjects were not actual hearing aid candidates as originally thought. Their need for amplification was not determined.

It seems apparent that there is quite a difference in the responses between the two groups using an objective measure (SAC/SOAC) and a subjective measure (COSI). According to this study, objective measures seem much easier for subjects to complete than are subjective measures. The subjects in this study had no trouble rating given situations, but they did experience significant difficulty thinking of five problematic listening situations.

It is important to remember that the person with the hearing loss is not the only person who suffers the effects from it. The significant other suffers equally as well. There can be strains on the relationships that make everyday communication a struggle. That is why using these self-report measures as counseling tools is so important. By having both parties complete the assessment forms, it is possible to view both sides of the situation and plan appropriate intervention. Self-report measures may also be beneficial for third party payers. It is often more convincing when the patient expresses their benefit and satisfaction rather than the clinician.
Limitations to the study

There are several limitations in this thesis, which could have affected the results. Hearing tests were not administered for any of the subjects in order to determine actual hearing status. In addition, the fact that subjects were recruited on a personal basis due to lack of availability at the original site, could have affected the results because actual need for amplification was not determined. Also, since a list of examples was provided for completion of the COSI, almost all of the couples used the same examples instead of attempting to think of their own. This could have had an effect on the results. Had the couples been forced to think of their own situations, the responses may have differed more than they did. However, it would have been difficult to think of many other examples of everyday listening situations. Similarities in responses to the COSI may have been due to the difficulty subjects experienced in independently composing five listening situations in need of improvement.

Future Studies:

It is obvious that subjects in this study had much more difficulty completing the COSI than they did completing the SAC/SOAC. Future studies may want to use careful consideration as to which self-report measures to use and be more explicit with regards to the instructions. Subjective measures, such as the COSI, are a great idea but are sometimes too difficult for clients to complete and therefore may not yield the most accurate data. It is also important to look at not only the group analysis but also the individual analysis. This study revealed no significant differences in performance between the two groups as a whole, but it did reveal significant differences in the responses of each couple.
Conclusion

In conclusion, the analysis of the SAC/SOAC resulted in a t value which revealed no significant differences in performance between the two groups as a whole. However, the correlation between perceived hearing disability of elderly hearing aid candidates and their significant others of each individual couple was not statistically significant, which means that there were in fact significant differences in the responses. Therefore the null hypothesis was rejected, and the research hypothesis accepted. However, there were not many differences in responses to the COSI, therefore the null hypothesis was not rejected. This information is intended to aid audiologists in gaining valuable and accurate information regarding perceived hearing disability so their clients may receive maximum benefit from their hearing aids. Audiologists may want to consider which measures would be most beneficial for each client, instead of using the same questionnaire for everyone.
References


Dillon, H., James, A., & Ginis, J., 1997. Client Oriented Scale of Improvement (COSI) and its Relationship to Several Other Measures of Benefit and Satisfaction Provided by Hearing Aids. Journal of the American Academy of Audiology, 8 (1), 27-43.


Title of Study: An Investigation of the Differences in Perceived Hearing Disability Between Elderly Hearing Aid Candidates and Their Significant Others Using the Client-Oriented Scale of Improvement and the Self-Assessment of Communication/Significant Other Assessment of Communication

Purpose: The purpose of this research study is to compare the responses to 2 hearing questionnaires between hearing aid candidates and their significant others (both of whom are at least 50 years of age) to see if there are remarkable differences in perceived hearing disability.

You will be one of approximately 50 participants taking part in this study.

Duration: Your participation in this study will involve one 20-30 minute session.

Procedures: During the course of this study, the following will occur:

Participants will be given 2 questionnaires to complete which they will fill out separately without discussing them with each other.

The Primary Investigator will be available for questions after explaining the instructions.

There will be no sharing of the data between the couples.

Inclusion: You will be able to participate in this study if any of the following apply to you:

1) You are at least 50 years old.
2) You have lived with your significant other for at least 5 years.
3) If you have a hearing aid, it has been for less than 6 months.

Risks/Discomforts: There will be no danger of any risks/discomforts during this study.
Benefits: You will receive no direct benefit from your participation in this study, but your participation may help health care practitioners better understand the relationship between someone with a hearing loss and their significant other.

Alternative Means of Participating: There are no alternative means of participating in this study.

Confidentiality: Every effort will be made to maintain the confidentiality of your study records. The data from this study may be published; however, you will not be identified by name. Your identity will remain confidential unless disclosure is required by law, such as mandatory reporting of elder abuse or immediate danger to self or others.

Right to Refuse or Withdraw: Your participation is voluntary and you may refuse to participate, or may discontinue participation AT ANY TIME, without penalty. There will be no loss of services to which you are routinely entitled if you withdraw from this study. The investigator has the right to withdraw you from the study AT ANY TIME. Your withdrawal from the study may be for reasons related solely to you or because the entire study has been terminated.

Offer to answer questions: If you have any other questions about this study, you may call April Myers at (513) 729-3343 or Dr. Doug Martin at (513) 558-8601. If you have any questions about your rights as a research participant, you may call Dr. Margaret Miller, Chair of the Institutional Review Board-Social and Behavioral Sciences, at (513) 558-5784.

Legal Rights: Nothing in this consent form waives any legal right you may have nor does it release the investigator, the sponsor, the institution, or its agents from liability for negligence.
I HAVE READ THE INFORMATION PROVIDED ABOVE. I VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY. I WILL RECEIVE A COPY OF THIS CONSENT FORM FOR MY INFORMATION.

______________________________________                    ________________________
Participant Signature                                                               Date
APPENDIX B

University of Cincinnati

Questionnaire to Determine Eligibility in a Research Study

**Title of Study:** An Investigation of the Differences in Perceived Hearing Disability Between Elderly Hearing Aid Candidates and Their Significant Others Using the Client-Oriented Scale of Improvement and the Self-Assessment of Communication

Now that you have given your consent, we need to determine whether or not you are eligible for this study. Please answer the following questions:

1. How long have you lived with your significant other?: _____________

2. Do you currently wear a hearing aid? Yes  No

3. If so, how long have you had the hearing aid? ________________

4. Your age is: ____________