

Columbia College Honors Program Honors Project Prospectus Cover Sheet

This TYPED form is due to the honors office the semester before enrolling in HON 498 (for example, students taking the course during fall semester must submit the prospectus by the end of April). The proposal should be approximately 1000 words in length, demonstrating careful, detailed planning and vigorous, genuine collaboration with your faculty director. The Director of Honors helps to evaluate proposals.

Name: Tara Watters

Title of project: Quality of Life of Hearing Impaired Adults and Cochlear Implants

Hon. 498 Semester/Year: Spring 2013

Credit hours: 4

The following items should be addressed in the prospectus:

1. Describe the goals of the project. Provide specific details about how the project will be conducted and state a specific hypothesis (if applicable). You may also want to provide some background information about your topic.

This project seeks to allow the student to investigate how cochlear implants impact quality of life in the adult population while working alongside the Cochlear Implant Team at the USC Speech and Hearing Research Center. The University of South Carolina Cochlear Implant Team implants over 50 candidates a year with this life-altering technology. Of those candidates, the majority are adults who experience difficulty in social and vocational situations as well as self-perception. The candidacy process involves a medical evaluation, an initial audiologic evaluation, a speech-language evaluation, and a consultation. In the consultation the clinician discusses the cochlear implant device and its potential impact on the client's communication and life. After the Cochlear Implant Team has determined that the client is a good candidate, the client receives surgery to place the cochlear implant. The procedure is followed by a one month recovery period and four consecutive weeks of aural rehabilitation therapy to facilitate adjustment to the new sound stimuli. The proposed project would administer a standardized measure of quality of life (SF-36v2) to clients during the pre-implant consultation determine the clients' perceived quality of life while living with a severe to

profound hearing loss. After the completion of the four weeks of therapy following the implantation, the survey will be administered again to capture the clients' perceived quality of life with his or her new hearing abilities. This data will then be compared to determine the impact of the cochlear implant on the clients' perceived quality of life. Information regarding quality of life in this population will also be gathered through observations of the Cochlear Implant Group for Auditory Rehabilitation (CIGAR) support group at the USC Speech and Hearing Research Center.

The investigation of quality of life of hearing impaired adults pre/post cochlear implant can be used to evaluate functional communication skills as well as the improvement of the implant recipient's quality of life. The potential findings of this project will be valuable to researchers, professionals working with recipients of cochlear implants, and potential cochlear implant candidates. This information can be used to further study the improvement of communication skills with the use of cochlear implants as well as the improvement of the recipient's quality of life. Additionally, audiologists and speech-language pathologists working with cochlear implant recipients can use this information to facilitate comprehension of potential changes occurring after implantation and the benefits that the implant can bring to everyday life.

This topic of research has been explored previously through various studies. Based on these studies, it is possible to hypothesize that quality of life will increase when pre-cochlear implant and post-cochlear implant data is compared for this project. These studies also provide both relevant background information; a few of these studies are described below.

According to the National Academy on an Aging Society, more than 4 million Americans age 65 and older are affected by hearing loss. Hearing loss is known to have a greater impact on an individual's emotional well-being as well as their amount of participation in social activities than individuals without hearing loss. The article states that individuals with hearing loss are less satisfied overall with their life and express greater dissatisfaction with friendships, family life, health, and financial situation than individuals without hearing loss.

Hawthorne, Hogan, Giles, Stewart, Kethel, White, Plaith, Pedley, Rushbrooke, and Taylor (2004) completed a study that sought to document the health-related quality of life and social

participation benefits of adults receiving cochlear implants. They assessed thirty-four patients using the Assessment of Quality of Life (AQoL) and the Hearing Participation Scale (HPS) before implantation as well as at three and six month follow-ups. The results indicated an increase in AQoL and HPS scores, with those in the top socio-economic placement receiving the greatest gains. This study concluded that cochlear implants have a significant positive effect on both social participation and quality of life.

In his article for the *International Encyclopedia of Rehabilitation*, Zaidman-Zait discusses the growing interest in the holistic outcomes of cochlear implants. He argues that there is a growing need for more holistic evaluations due to the fact that the more traditional evaluations fail to capture the numerous ways in which cochlear implants impact recipients' everyday living experiences, such as social interaction, school and vocational adjustment, and other aspects that contribute to quality of life. Investigating quality of life outcomes in the adult population, as opposed to the child population, allows researchers to compare prelingually and postlingually deafened cochlear implant recipients. This group distinction is necessary because prelingually deafened adults who use cochlear implants typically have poorer outcomes when assessing quality of life benefits from the cochlear implant than postlingually deafened adults. Assessing the adult population also allows for more accurate results since adults have the ability to self-report on their own experience. Zaidman-Zait includes descriptions of multiple studies which have investigated the impact cochlear implants have on quality of life in the adult population in his article. He concludes that cochlear implants most commonly improve the health-related quality of life among both prelingually and postlingually deafened adult cochlear implant recipients.

According to Dalton, Cruickshanks, Klein, Klein, Wiley, and Nondahl (2003), few studies have provided population-based data to describe the impact of hearing loss on quality of life in the older adult population. Despite the necessity of hearing in daily life, hearing loss is often unrecognized and undertreated. The purpose of their study was to investigate the impact of hearing loss on communication, function, and health-related quality of life in a large population of older adults through the use of standardized audiometric testing procedures and health-related quality of life measures. Their findings concluded that hearing loss is associated with

reduced quality of life and highlight the need for improved methods of identifying hearing loss as well as improving services for individuals with hearing loss.

2. Describe how the project fits in with your educational background and experience and how the project is related to your post-graduation plans for career or graduate study. Describe how the project enhances your honors education.

This proposed project fits in with my education background and experience because as a speech-language pathology (SLP) major I have learned about cochlear implants and the speech-language therapy necessary for cochlear implant recipients in my classes. This project is related to my post-graduation plans for my career or graduate study because I will likely be working with cochlear implant recipients in both my future graduate student clinical experiences as well as in my future career. My honors education will be enhanced by this project because through this experience I will become more competent in communicating and collaborating with other professionals, will discover how to design a research study in the SLP field, and will gain experience with presenting my work to other professionals.

3. Detail how your director will assess your project. Include specific details about the assessment criteria. Describe in detail any product that you expect to generate. For example, if you will be completing a written paper, provide information about the expected length of the paper, the number of resources to be used, and the citation style to be used (APA or MLA, etc.). If you will be doing a creative performance or preparing a portfolio or some other product, you may include a checklist of items to be included and details about how the project will be judged.

The student will observe and participate in pre/post cochlear implant evaluations at the USC Speech and Hearing Research Center. The student will log observation hours on a Columbia College Observation Form. The information received from the evaluations will be compared and analyzed to determine the impact of cochlear implants on quality of life.

A short interview will be developed in order to gain additional information about the Cochlear Implant Team. The questions asked during the interview will pertain to information regarding how the Cochlear Implant Team functions and the process involved with selecting cochlear implant candidates.

The project will be assessed based on the timely and appropriate completion as outlined by the timeline and the integrity of the final product, which will be in the form of a written paper. All information obtained from observations, interviews, and the standardized quality of life assessment will be compiled and analyzed by the student. The paper is expected to be approximately 10 or more pages in length and contain the resources cited below. The student will report all research using the APA format.

Timeline for Project Completion:

May-November 2012

- Observe and participate in pre-cochlear implant evaluations at the USC Speech and Hearing Research Center
- Obtain pre-cochlear implant standardized quality of life assessment (SF-36v2) results
- Interview Cochlear Implant Team members
- Observe CIGAR support group meetings

December-January 2013

- Observe and participate in post-cochlear implant evaluations at the USC Speech and Hearing Research Center
- Obtain post-cochlear implant standardized quality of life assessment (SF-36v2) results
- Begin to compile and analyze data

February-April 2013

- Completion of project
- Compare and analyze results
- Develop written paper

4. Provide a preliminary bibliography. Generally, a preliminary reference list of resources will be appropriate.

Dalton, D. S., Cruickshanks, K. J., Klein, B. E., Klein, R., Wiley, T. L., & Nondahl, D. M. (2003). The impact of hearing loss on quality of life in older adults. *The Gerontologist*, 43(5), 661-

668. Retrieved from [http://www.clas.ufl.edu/users/mcolburn/Web-links/SPA4321/Impact of HL on QOL.pdf](http://www.clas.ufl.edu/users/mcolburn/Web-links/SPA4321/Impact%20of%20HL%20on%20QOL.pdf)

Hawthorne, G.; Hogan, A.; Giles, E.; Stewart, M.; Kethel, L.; White, K.; Plaith, B.; Pedley, K.; Rushbrooke, E.; Taylor, A. (2004). Evaluating the health-related quality of life effects of cochlear implants: A prospective study of an adult cochlear implant program. *International Journal of Audiology*, 43(4), 183-192. Retrieved from <http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=5&hid=108&sid=25362b9f-3f96-449e-9b27-a633c2240caf@sessionmgr14>

O'Neill, G. (1999, December). Hearing loss: A growing problem that affects quality of life. *National Academy on an Aging Society*, Retrieved from <http://www.agingsociety.org/agingsociety/pdf/hearing.pdf>

Zaidman-Zait, A. 2012. Quality of Life Among Cochlear Implant Recipients. In: JH Stone, M Blouin, editors. *International Encyclopedia of Rehabilitation*. Available online: <http://cirrie.buffalo.edu/encyclopedia/en/article/293/>

Note: Projects completed during spring semester are due to faculty directors for assessment by early April. Projects completed during fall semester are due to faculty directors for grading by early November. The project is showcased for students, faculty, family, and friends at the senior Honors Medal Ceremony held before graduation. Displays may vary from computer presentations, to poster displays, to video segments, to artifact collections or any other creative, appropriate means to share your project. Although students complete their project during the junior year, graduates are expected to participate in the showcase at the Medal Ceremony.

The undersigned agree to the guidelines set forth in the Honors Project Prospectus:

Tara M. Walters 11/30/12
Student Signature Date

Mary Stepples 11/30/12
Faculty Director Signature Date

John Zolozuel 12/3/2012
Honors Program Director Signature Date