

Professionalism and the Audiology Student: Characteristics of Master's versus Doctoral Degree Students

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Abstract

Only scarce documentation is available concerning the professional characteristics of students within audiology training programs. In the current study, audiology students were asked to complete a questionnaire that explored some of the major issues of student professionalism. Equal numbers of questionnaires were sent to both Doctor of Audiology (AuD) and master's degree programs to determine the characteristics of students being attracted to and trained within two different courses of study. Audiology students as a whole ranked low in most aspects of professionalism when compared with other students in health care. Similarities were observed between the two student groups for the majority of questions. Statistically significant differences were calculated with regard to future employment, income, and autonomy. Master's students more commonly wished to become employees rather than employers. Significantly higher numbers of master's than AuD students expect audiology to provide them with a secondary source of income. Finally, more master's than AuD students report doubt concerning the future autonomy of audiology.

Key Words: Autonomy, doctor of audiology, professionalism, student characteristics, student demographics, student training

Abbreviations: AuD = Doctor of Audiology; ENT = ear, nose, and throat

Sumario

Dado que sólo existe información escasa sobre las características profesionales de los estudiantes en programas de entrenamiento en audiología, en el presente estudio se le pidió a estudiantes de audiología que llenaran un cuestionario para explorar algunos de los asuntos más importantes relacionados con el profesionalismo estudiantil. Se enviaron cuestionarios a un número similar de estudiantes de programas tanto de Doctorado en Audiología (AuD) como de Maestría en Audiología, para determinar las características de los estudiantes que eran atraídos para entrenarse en cada uno de los dos diferentes planes de estudio. Los estudiantes de audiología en general obtuvieron bajo puntaje en la mayor parte de los aspectos del profesionalismo, cuando fueron comparados con otros estudiantes en ciencias de la salud. Se observaron similitudes entre los dos grupos de estudiantes para la mayoría de las preguntas. Se calcularon diferencias estadísticamente significativas en cuanto a empleo, ingresos, y autonomía. Los estudiantes de Maestría expresaron con más frecuencia el deseo de ser empleados que empleadores. Un número significativamente mayor de estudiantes de Maestría que de Doctorado esperan que la audiología les aporte una fuente secundaria de ingresos. Finalmente, más estudiantes de Maestría que de Doctorado manifestaron dudas con respecto a la autonomía futura de la audiología.

Palabras Clave: Autonomía, profesionalismo, características del estudiante, doctor en audiología, demografía estudiantil, entrenamiento estudiantil

Abreviaturas: AuD = Doctor en Audiología; ENT = oídos, nariz, garganta

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Although audiology is a relatively young profession, few efforts have been made to document the professional characteristics of students being trained to eventually enter the profession. Almost all “established” or “professionalized” health care professions have attempted to document the professionalism or personal characteristics of their students. The profession of medicine has conducted perhaps the most thorough and long-term studies of its students (Merton et al, 1957; Rogoff, 1957; Haas and Shaffir, 1987; Fox, 1989; Anderson, 1992; Cruess and Cruess, 1997). There is also a wealth of research concerning students in health professions such as optometry (Havighurst, 1973; Levine, 1978), dentistry (More and Kohn, 1961; Pavalko, 1964), and pharmacy (Harvey, 1966; McCormack, 1966; Denzin and Mettlin, 1968; Schack and Hepler, 1979).

Although the previously noted studies on professionalism vary in their exact method of questioning and whether positive or negative reflections were made on the student population, the studies generally agree that one of the most critical elements to professionalization is first understanding the characteristics of the students within training programs. These students and their attitudes, beliefs, and abilities will drastically impact the future direction of any given profession. Working to improve or maintain a profession's status in society must include a thorough understanding of the type of professionals being produced.

Neal (1994) conducted one of the only known studies, an unpublished doctoral dissertation pertaining to the professionalization of the audiology student. The purpose of the study was to investigate the development of audiology students' values, traits, and attitudes. Neal also explored the reasons students selected audiology as a career, professional plans and ambitions for the future, and satisfaction with their career choice. The study questioned primarily master's candidates (N = 202) from Midwestern graduate programs, and the results showed that audiology students ranked low in almost every category of professionalism compared with students in other health care professions (i.e., medicine, pharmacy, optometry, dentistry). According to Neal, “this study suggests that although audiology is well on its way to meeting the requirements of a true profession, a number of issues regarding professionalism must be addressed during the recruiting and education of future practitioners” (p. ix).

The goal of the present study was to gather data concerning the professional characteristics of students training to become audiologists. Further, with the recent development of numerous Doctor of Audiology (AuD) programs, it has become increasingly important not only to define the audiology student body as a whole but also to describe any differences that exist between students attracted to two different courses of study within the profession. Audiology literature includes a plethora of opinions when it comes to the topic of doctoral versus master's degree education for future practitioners (Goldstein, 1988, 1989, 1993; Jerger, 1988; Hall, 1989; Goldstein and Binnie, 1990; American Academy of Audiology, 1991, 1995, 1998; Freeman, 1993; Humes and Diefendorf, 1993; Humes et al, 1993; Turner, 1993; Davenport and Kennedy, 1996). Within this literature, questions have been posed concerning the likelihood that better or somehow “different” students may be attracted to doctoral programs. Until now, no attempt has been made to quantify these differences.

METHOD

The questionnaire used in this study (Appendix) was adapted from the only previously conducted study on professionalism in audiology students (Neal, 1994). The questionnaire used by Neal was originally adapted from a questionnaire surveying similar information from medical students (Merton et al, 1957). The emphasis of the present questionnaire is on background/demographic information, reasons students chose to enter the profession, student perceptions and feelings concerning their choice to become an audiologist, and professional ambitions for the future.

The majority of questions were closed ended, with some open-ended questions when multiple answers were possible or necessary. The study results are primarily presented in terms of general descriptive statistics. For each question or group of questions, comparisons were made between master's and doctoral students. All statistics were calculated using Statistical Programs for the Social Sciences (SPSS) software. Chi-square cross-tabulation analysis was used between student groups to determine significant differences. Significance was represented by a p value less than or equal to .05.

At the time of the mailing of the questionnaires, there were seven 4-year AuD programs in existence training 165 full-time, postbachelor students. Each of the seven AuD programs were

Table 1 Students Who Seriously Considered Another Occupation/Profession

<i>Did You Consider Another Occupation/Profession? (%)</i>	
Yes	92
No	8
<i>Which Occupations/Professions Were Considered? (%)</i>	
Speech pathology	41
Education	31
Medicine	18
Psychology	10
Physical therapy	11
Nursing	8
Pharmacy	8
Business	7

Each student could list up to three different occupations seriously considered. Occupations with a response frequency < 6% were not listed.

sent questionnaires. Students obtaining their AuD via distance learning were not included in this study. In the hope of surveying an equal number of master's students, six master's programs were randomly selected from the *U.S. News & World Reports'* list of the top 50 graduate audiology programs (U.S. News & World Reports, Inc., 2000). These six programs were surveyed for enrolment and resulted in the same student population of 165. Three of the six master's programs surveyed were ranked in the top 10 of all audiology programs.

RESULTS

Seventy-six completed questionnaires were received from the seven AuD programs, for a return rate of 46 percent (76/165). Fifty-six completed questionnaires were received from the six master's programs, for a return rate of 34 percent (56/165). Many answers between groups showed no statistically significant differences. For this reason, the results from the two student groups are presented as one unless significant differences were encountered.

The majority of students surveyed were female (86%) and single (71%). Students were represented from each of the training levels

Table 2 Studying Audiology versus Other Professions

Much more difficult than...	Teacher
About the same as...	Lawyer, optometrist, pharmacist, nurse, dentist
Less difficult than...	Engineer, physician

within the programs. Master's program respondents were enrolled in either their first (43%) or second (57%) year of coursework. AuD students were represented from the first (25%), second (29%), third (33%), or fourth (13%) year of study.

Combined Results

Students were initially asked when they first thought of a career in audiology as well as when they definitely decided to pursue this career. Fifty percent of students "first thought" about a career in audiology after the age of 20. Ninety percent "first thought" of audiology after the age of 18. The majority of students (68%) "definitely decided" to study audiology after the age of 20, with a total of 98% definitely deciding after the age of 18. No surveyed student "definitely decided" to become an audiologist before the age of 14.

Almost all of the surveyed students (92%) reported seriously considering another occupation or profession (Table 1) prior to their decision to enter audiology. Master's and AuD students could list up to three occupations they had considered. A total of 54 different occupations were listed, including speech pathology (42%), education (30%), medicine (18%), physical therapy (11%), psychology (10%), nursing (8%), pharmacy (8%), and business (6%). The 46 remaining occupations had a response rate of less than 6 percent.

Studying to become an audiologist is ranked very closely with various other professions (Table 2). The majority of students felt that studying to become an audiologist is about as difficult as studying to be a lawyer, optometrist, pharmacist, nurse, or dentist; less difficult than studying to be an engineer or physician; and much more difficult than studying to be a teacher. Further, students were asked to rank how they believe the public perceives various professions (Table 3). Audiology students ranked audiologists as having the lowest perceived prestige of all listed professions. The majority of students believed that physicians, lawyers, and dentists have the highest perceived public importance.

Undergraduate professors (31%) were the most influential in a student's decision to enter the profession (Table 4). The next highest rated influences were parents (23%), an audiologist they knew personally (16%), and their own inclination (12%). Further, the majority of students (60%) were initially exposed to audiology through an undergraduate introductory class in speech pathology/audiology.

Table 3 How Students Think the Public Perceives Various Professions

	"_____ Important" (%)
Physician is...	Very (98)
Lawyer is...	Very (54)
Dentist is...	Very (51)
Optometrist is...	Somewhat (70)
Teacher is...	Somewhat (53)
Psychologist is...	Somewhat (52)
Nurse is...	Somewhat (51)
Engineer is...	Somewhat (47)
Pharmacist is...	Somewhat (46)
Audiologist is...	Somewhat/minor (48/48)

Students ranked what they will like most about being an audiologist (Table 5). The majority of students (54%) expressed an interest in helping others. Other appealing factors about audiology included the ability to deal directly with people (22%), a good income (9%), and the challenging and stimulating nature of the work (9%).

Students in audiology training programs were primarily communication disorders majors (75%) during undergraduate training. The next most common undergraduate majors were science (8%), psychology (6%), and education (2%). Slightly more AuD students (11% vs 4%) have come from a science undergraduate major. The majority (70%) of those students coming from science majors were at one time interested in a career in medicine. Smaller percentages of these science majors were interested in careers such as physical therapy, dentistry, optometry, and scientific research.

AuD versus Master's

Although many questions were answered similarly between student groups, several distinctions can be observed in the responses between these groups. The first topic area con-

Table 4 Most Important Influence to Enter the Profession (%)

Undergraduate professor	31
Mother/father	23
Audiologist you know	16
Self	12
Audiology student	6
Friends	5
Other relative	4
Audiologist you heard about	2
Undergraduate counselor	2

Table 5 Things Students Will Like Most About Being an Audiologist (%)

Being able to help others	54
Being able to deal directly with people	22
Earning a good income	9
Challenging and stimulating nature of the work	9
Being in a respected profession	4
Doing work involving the scientific method and research	2

cerned students' preference for work specialty and setting (Table 6). The majority of students (60%) were not sure about a specialty area within audiology. When asked to speculate on the most appealing specialty, students indicated diagnostics (41%), cochlear implants (22%), and hearing aid dispensing (18%). Statistically significant differences were found ($\chi^2 = 27.91$, $df = 7$, $p \leq .001$) between student groups for their preference in the practice setting where they would prefer to work. In order, the top three practice settings indicated by master's students were "hospital" (31%), "own audiology practice" (21%), and "ENT [ear, nose, and throat] physician's office" (18%). AuD students indicated that they intended to practice in their "own audiology practice" (61%), "hospital" (27%), and "other's audiology private practice" (5%). Only 1% of AuD students ($n = 1$) reported a desire to work in an ENT physician's office.

Table 6 Specialty Preference (First Choice) and Setting Where Students Plan to Practice

Specialty	%		
Diagnostics	41		
Cochlear implants	22		
Hearing aid dispensing	18		
Educational/schools	7		
Audiologic rehabilitation	6		
Intraoperative monitoring	3		
Industrial/conservation	1		
Vestibular	1		
No specialty interest	1		

Setting	Master's (%)	AuD (%)	Combined (%)
Own audiology practice	21	61	43
Hospital	31	27	29
ENT physician's office	18	1	9
Other's audiology practice	12	5	8
University	10	4	7
School system	5	0	2
Industry	0	1	1

Table 7 View of Audiology as a Primary or Secondary Source of Income

	Master's (%)	AuD (%)	Male Overall (%)	Female Overall (%)
Primary income	50	73	95	57
Secondary income	50	27	5	43

Respondents were asked whether they believe that audiology will provide them with a primary or secondary source of income (Table 7). Significant differences were observed between master's and AuD students ($\chi^2 = 6.93$, $df = 1$, $p \leq .008$). Fifty percent of master's students, compared with 27% of AuD students, reported that they view their career in audiology as providing their family with a secondary source of income. For both groups of students combined, significantly more females (43%) than males (5%) view audiology as a secondary income. The female-to-male ratio among AuD and master's programs is similar (82:18 master's, 88:12 AuD) and does not account for the differences in responses between student groups.

Students were also provided with a definition of autonomy. For the purposes of this study, autonomy was defined by the authors as "patients having direct access to audiology services, audiologists being directly reimbursed by third parties for their services, and health care entities (insurance companies, government agencies, etc.) recognizing the full scope of practice of audiologists." The first question posed to students was whether they believe that audiology is "currently" an autonomous profession (Table 8). Ninety-three percent of all students sur-

Table 8 Current and Future Autonomy for the Profession

<i>Is Audiology Currently Autonomous?</i>			
	Master's (%)	AuD (%)	Combined (%)
Yes	7	7	7
No	93	93	93
<i>Will Audiology Become Autonomous during Your Career?</i>			
	Master's (%)	AuD (%)	Combined (%)
Yes	75	96	87
No	25	4	13

Table 9 Feelings About a Career in Audiology (%)

The only career that could really satisfy me	37
One of several careers I could find almost equally satisfying	55
Not the most satisfying career I can think of	3
I decided without considering whether it was most satisfying	5

veyed believe that audiology is not currently autonomous. Students were then asked if they believe that audiology "will become" autonomous during their career, and significant differences were found ($\chi^2 = 11.56$, $df = 1$, $p \leq .001$). Twenty-five percent of master's students do not believe that audiology will become autonomous during their careers as opposed to only 4 percent of AuD students. However, AuD students (19%) express greater concern about the lack of professional autonomy for audiology than master's students (3%).

Many students have uncertain feelings about a career in audiology and doubt their decision to enter the profession. The majority of respondents (55%) indicated that audiology is one of several careers they could find almost equally satisfying (Table 9). Further, just over one-quarter of all respondents (26%) stated that they doubt their decision to enter the profession of audiology (Table 10). The most commonly listed reasons for this doubt were inadequate income (29%), wrong career choice (19%), and limited job potential (15%). Although not statistically significant, fewer AuD students (20%) than master's students (34%) reported doubt about their decision to enter the profession.

DISCUSSION

In an early study of medical students, Rogoff (1957) found that the earlier a student is drawn to a medical career, the less likely it would be for him/her to consider doing anything else. Over half of the medical students surveyed by Rogoff reported first thinking of a career in medicine before the age of 14. Pavalko (1964) found that only 1 percent of dental students decided to study dentistry after age 21. Other occupations, such as optometry, have attracted students who report never seriously considering any other occupation (Levine, 1978). As noted by Neal (1994), the prerequisite courses premedical/dental students must complete are quite extensive and require several years to complete. Therefore, the student entering medical or den-

Table 10 Doubt Concerning Choice to Enter Audiology

<i>Do You Doubt the Choice You Made?</i>			
	<i>Master's (%)</i>	<i>AuD (%)</i>	<i>Combined (%)</i>
Yes	34	20	26
No	61	79	71
Never thought about it	5	1	3

<i>Descriptions of Feelings of Doubt</i>			
	<i>Master's (%)</i>	<i>AuD (%)</i>	<i>Combined (%)</i>
Inadequate income	30	28	29
Wrong career choice	23	16	19
Limited job potential	13	16	15
Lack of autonomy	3	19	11
Concerns with degree designator	10	6	8
Training geared toward speech path	3	0	2
Math involved	3	0	2
It's just not me	3	0	2
Lack of passion	3	0	2
Extent of schooling required	0	3	2
Worry about the responsibility	0	3	2
Not enough vacation time	0	3	2

Students could list more than one description of their doubt.

tal school has already spent several years preparing for and committing to his/her professional education.

Audiology students are deciding to enter this profession later in life, and almost all of them have seriously considered numerous other occupations. Neal (1994) proposed an explanation for late decisions to enter the profession of audiology revolving primarily around a lack of exposure. The current study confirmed that 60 percent of AuD students' initial interest in audiology came through an introductory class in speech pathology/audiology. It could be said that many students essentially stumble upon audiology. This also coincides with a relatively large number of students who doubt their decision to enter the field or believe that audiology is only one of several careers they would find equally satisfying.

Audiology students believe that studying to become an audiologist is quite difficult and comparable to many other professions. However, students ranked audiology as having the lowest perceived public importance of all listed professions. These findings were mirrored in

the Neal (1994) study. Neal asked, "[w]hy would students choose to enter a difficult field of study to achieve a profession which is not held in high prestige" (p. 32)? She suggested that students do not really believe that audiology is a difficult field of study but simply rate it as such to relieve their true feelings about the lack of prestige in the profession. However, it is also possible that students simply do not know how difficult it may be to study these other subject areas. Perception of difficulty in study is highly variable between students, and what may be difficult for one student may be very simple for the next. The AuD and master's students in the current study both listed very similar professions as being the same as studying audiology. It seems interesting that doctoral students, committing 2 additional years for their education, would report little difference between their course of study and what is also reported by master's students.

Audiology students are highly influenced to enter the profession by undergraduate professors, and most students do not hear about audiology until they enrol in an introductory communicative disorders class. A question for future research may be to assess the impact that undergraduate communication sciences and disorders faculty have on the transition of audiology to a doctoral level profession, that is, whether these faculty members will influence a student's desire to pursue an AuD or a master's degree in audiology.

Students generally report not being sure if they will practice in a particular specialty. When forced to select a specialty, both master's and AuD students would like to pursue diagnostics (41%), cochlear implants (22%), and hearing aid dispensing (18%). Diagnostics and hearing aids were the top two specialties indicated in the Neal (1994) study. The high number of students in the current study interested in cochlear implants was somewhat unexpected considering the relatively small number of current professionals specializing in this area. Estimates obtained from the Cochlear Implant Association (Williams P, personal communication, October 23, 2001) reveal that between 8 and 10 percent of practicing audiologists work in the specialty area of cochlear implants. It may also reflect a natural evolution of the profession to include and pursue technological advancements.

The results revealed that AuD students preferred to own a private practice (61%), whereas master's students selected working in a hospital setting (31%). Almost the same number of master's students indicating a desire to be in private

practice (21%) selected an ENT physician's office (18%) as their preferred practice setting. Only one AuD student reported a desire to work in an ENT office. When describing similar findings in her study, Neal (1994) states, "the status of audiologists as employees rather than private practitioners contributes to [the] protective atmosphere which shields [students] from accountability, but at the price of opportunity" (p. 29). Neal goes on to state that although income levels in private practice are typically higher, audiologists continue to accept their "employee" status, perhaps because they feel incapable of providing independent service. The master's students in the current study reflect Neal's findings, whereas we see an encouraging change in perspective from the AuD students.

Whereas the master's students in the current study responded in a manner consistent with the students in the Neal study, the AuD students appeared to reflect the personality of students in other professions. This is also reflected in the finding that significantly more AuD than master's students report that they view their career in audiology as providing them with a primary source of income. Students who enter audiology with the goal of making it a career and primary source of family income would more likely seek independent practice opportunities and less likely express an interest in being an employee of another practitioner. The numerous students in audiology training programs who view audiology as a secondary income likely perpetuate the very problems that they complain about in this survey.

Only 14 percent of audiology students are male. However, almost all of the males in this survey (95%) view audiology as a primary income. Over half of the females see audiology as a secondary source of income. Increased enrollment of males into training programs may assist in audiology being viewed as a career.

AuD students express a more positive outlook on autonomy than master's students. All but three AuD students surveyed believe that audiology will obtain professional autonomy during their careers. One-quarter of all master's students do not believe that audiology will obtain this autonomy. It should be noted that several students responding yes to this question also noted in the margin of the questionnaire that they "hope so." In other words, many students expressed a desire and perhaps a goal with some degree of uncertainty. Whether secondary to desire or realism, the belief in future autonomy may be a critical component of the overall pro-

fessionalization of audiology. The steps necessary to institute change may begin with the hope and desire to actively pursue that change.

Many students doubt their decision to enter the profession of audiology (26%), and the most commonly listed reason was inadequate income. Neal (1994) also discovered that concern over income was the primary explanation for doubting the decision to enter audiology. Further, over half of the respondents (55%) in the current study believe that there are several other careers they could find equally as satisfying. Slightly fewer AuD (20%) versus master's (34%) students express doubt. Student groups showed similar concern (10% vs 6%) with degree designators. So although much of the audiology community is busy establishing the future degree designator for our profession, master's students do not currently appear to be any more concerned with their decision to enter a 2-year versus a 4-year program.

FUTURE RESEARCH

Student characteristics must be studied over time. Havighurst (1973) states that "a profession must continue to study itself in order to wisely plan its future" (p. 113). Although the current study and the previous study by Neal (1994) gathered extensive data concerning audiology students, many more projects could be implemented to further describe the professionalization of audiology and its students. The following topic areas may be explored:

1. Specific recruitment strategies employed by audiology programs. The results can be compared to current knowledge of how students choose to enter the profession and their primary influences.
2. Specific aspects of occupations students report that they are "seriously considering." This may include the characteristics of that career they found most appealing and the primary reason they ultimately chose not to enter that field.
3. The socialization process within audiology training programs. Are students introduced into a "culture" during their training? Are there advantages to the socialization process? Do university faculty determine whether socialization takes place and, ultimately, the professionalization of their students?
4. Student characteristics, which should be monitored as additional AuD programs begin training.

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APPENDIX

Study Questionnaire

1. Date of birth: ___/___/___
2. Sex:
 - ___ Female
 - ___ Male
3. Marital Status:
 - ___ Single
 - ___ Married
 - ___ Engaged
 - ___ Divorced, separated, widowed
4. Current level of academic training:
 - ___ 1st-year AuD student ___ 1st-year master's student
 - ___ 2nd-year AuD student ___ 2nd-year master's student
 - ___ 3rd-year AuD student ___ PhD or other doctoral
 - ___ 4th-year AuD student
5. At what age did you *first think* of becoming an audiologist?
 - ___ Before the age of 14
 - ___ Between 14 and 17 years
 - ___ Between 18 and 20 years
 - ___ After the age of 20

6. At what age did you *definitely decide* to study audiology?
 Before the age of 14
 Between 14 and 17 years
 Between 18 and 20 years
 After the age of 20

7. Before deciding on audiology, did you ever seriously consider any other occupation or profession?
 Yes No

If yes: Which occupation(s) or profession(s) did you consider?

- (a) _____
 (b) _____
 (c) _____

8. Please check if *either* of the following statements is true:
 I initially became interested in audiology while taking an undergraduate introductory course in speech pathology/audiology.
 At one time I was interested in a speech pathology career.

9. Which one of the following statements *best describes* the way you feel about a career in audiology?
 It's the only career that could really satisfy me.
 It's one of several careers that I could find almost equally satisfying.
 It's not the most satisfying career I can think of.
 A career I decided on without considering whether it was most satisfying.

10. Some people experience doubts about their career choice. Do you find yourself doubting the choice you made in audiology?
 Yes
 No (skip to question #12)
 Have never thought about it (skip to question #12)

11. Which of the following best describes your feelings of doubt? (check all that apply)
 Wrong career choice
 Limited job potential
 Inadequate income
 Lack of autonomy
 Concerns over degree designator
 Other (specify) _____

12. How do you think studying to be an audiologist compares with each of the following professions?
 Studying to be an audiologist is:

	Much more difficult	Somewhat more difficult	About the same	Less difficult	Don't know
Studying to be a lawyer					
Studying to be an engineer					
Studying to be a physician					
Studying to be a psychologist					
Studying to be a teacher					
Studying to be an optometrist					
Studying to be a pharmacist					
Studying to be a nurse					
Studying to be a dentist					

13. How important do you think the *public* considers each of the following professions?

	Very important	Somewhat important	Of minor importance	Not at all important
Physicians				
Teachers				
Optometrists				
Nurses				
Audiologists				
Pharmacists				
Lawyers				
Psychologists				
Engineers				
Dentists				

14. How important was each of the following in your decision to enter the profession of audiology?

	Very important	Fairly important	Of minor importance	Not at all important
A Mother/father				
B Other relatives				
C Friends				
D Audiologists you know personally				
E Audiologists you have heard or read about				
F Audiology students you know				
G Undergraduate professor				
H Undergraduate counselor				
I High school counselor				
J Other (specify):				

15. Which two of the above individuals (question #14) were most important in your decision to become an audiologist? (list the appropriate alphabetic letters) ___ and ___

16. Once you have finished school, what *three* things do you think you will like best about being an audiologist? (*rank in order of importance 1, 2, 3*)

- ___ Being able to deal directly with people
- ___ Being able to help other people
- ___ Having interesting and intelligent people for colleagues
- ___ Doing work involving scientific method and research
- ___ Being in a respected profession
- ___ Earning a good income
- ___ The challenging and stimulating nature of the work
- ___ Other (specify) _____

17. Do you intend to practice in a particular specialty in audiology?

- ___ Yes
- ___ No
- ___ Not sure

18. If you were to specialize, even though you may not have decided yet, please indicate your *first two choices* in order of preference.

- | | |
|---|---|
| <input type="checkbox"/> Cochlear implants | <input type="checkbox"/> Audiologic rehabilitation |
| <input type="checkbox"/> Diagnostics | <input type="checkbox"/> Intraoperative monitoring |
| <input type="checkbox"/> Educational/schools | <input type="checkbox"/> Industrial/conservation |
| <input type="checkbox"/> Hearing aid dispensing | <input type="checkbox"/> Not interested in specializing |

19. In which practice setting do you ultimately plan to practice the profession of audiology?

- Own audiology private practice
 Other's audiology private practice
 Hospital
 ENT physician's practice
 University
 School system
 Other (specify): _____

20. Below are some considerations that might enter into your selection of the type of setting in which you would like to practice. Please rank each of the following based on importance to *you* as you think about your career.

	Very important	Somewhat important	Of minor importance	Not at all important
Having the opportunity to know your patients well				
Being able to establish your own hours of work				
Meeting diagnostic problems that are particularly challenging				
Making a good income				
Having patients who will appreciate your efforts				
Having prestige within the medical community				
Having prestige within the audiology profession				

21. Which of the following do you view your career in audiology as providing you with?

- A primary income in your household
 A secondary income in your household

22. What was your undergraduate major?

- | | |
|--|--------------------------------------|
| <input type="checkbox"/> Communication disorders | <input type="checkbox"/> Education |
| <input type="checkbox"/> Science | <input type="checkbox"/> Psychology |
| <input type="checkbox"/> History | <input type="checkbox"/> Other _____ |

When considering your answer to questions #23 and #24, please note:

For the purpose of this study, *autonomy* will be defined as patients having direct access to audiology services, audiologists being directly reimbursed by third parties for their services, and health care entities (insurance companies, government agencies, etc.) recognizing the full scope of practice of audiologists.

23. Do you believe that audiology is currently an *autonomous* profession?

- Yes (skip question #24)
 No

24. Do you believe that audiology will become *autonomous* during your career as an audiologist?

- Yes
 No