1997

Perceptions of Stuttering Intervention Services Received at Portland State

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Recommended Citation

Bender, Franklin Wayne, "Perceptions of Stuttering Intervention Services Received at Portland State" (1997). *Dissertations and Theses.* Paper 6265.
https://doi.org/10.15760/etd.8124

THESIS APPROVAL

The abstract and thesis of Franklin Wayne Bender for the Master of Science in Speech Communication: Speech and Hearing Sciences were presented June 4, 1997, and accepted by the thesis committee and the department.

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ABSTRACT

An abstract of the thesis of Franklin Wayne Bender for the Master of Science in Speech Communication: Speech and Hearing Sciences presented June 4, 1997.

Title: Perceptions of Stuttering Intervention Services Received at Portland State University

As consumers become more knowledgeable and more demanding of accountability, health care workers, including speech-language pathologists, are being required to justify the effectiveness of their work by documenting the results of their treatment programs. There are different ways to measure treatment outcomes. Outcomes may be measured qualitatively and/or quantitatively. Qualitative or subjective outcomes are difficult to define and measure and few studies of this type have been reported in the literature. Because few studies have been reported in the literature regarding client satisfaction, this area was investigated in this research project.

The focus of this project was to ascertain whether previous clients believed they benefitted from stuttering intervention services received at the Portland State University (PSU) Speech and Hearing Clinic. The subjects surveyed were previous

adult clients and parents of previous child clients. The parents responded as if they were the children who had received the service. The project also examined the subjects' attitudes regarding the clinical atmosphere and staff.

Data analysis revealed that for the adult subjects who returned their questionnaires, 79% of their responses were positive, whereas 3% were negative, 14% were neutral, and 4% were not applicable. Of the parent questionnaires that were returned, 84% of their answers were positive, whereas 3% were negative, 11% were neutral, and 2% were not applicable.

From a review of these figures, one could conclude that adults who attended the PSU Stuttering Disorders Clinic and parents who had children who participated in the PSU Stuttering Disorders Clinic believe that they or their children benefitted and that they had a positive attitude about the clinical atmosphere and staff. However, without negating the successful ratings given to the PSU Clinic, there were concerns noted regarding the reliability of these figures. These concerns included the response rate, potentially influenced responses, and the questionnaire design.

PERCEPTIONS OF STUTTERING INTERVENTION SERVICES RECEIVED AT PORTLAND STATE UNIVERSITY

by

FRANKLIN WAYNE BENDER

A thesis submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE
in
SPEECH COMMUNICATION:
SPEECH AND HEARING SCIENCES

Portland State University
1997

ACKNOWLEDGMENTS

Some of my colleagues have described the thesis experience as frustrating, endless, and exhausting. In the end, the only perceived value is the fact that you have survived the rites of passage of some ritualistic experience. I have also felt these feelings over the last year. However, I have also learned something about myself. This end product is a compilation of the education that I have received from Portland State University. For that, I thank the entire staff of the Speech and Hearing Sciences Program. This experience has also taught me to believe in myself and my abilities. I owe this intraspective faith to both of my thesis advisors: Professor Emerita Joan McMahon and Dr. Mary Gordon-Brannan. Their belief in my skills, coupled with their mentoring, has taught me that bad questions do not exist, only poor interpretations of an answer. They also taught me to exceed my own expectations and realize there is not a ceiling on knowledge.

I also want to thank my mother and father for being patient with my quest for a profession. Their consistent reinforcement of the importance of education and having control over ones destiny proved fruitful.

My last and most important influence in my life has been my loving and encouraging wife Sharon Elise Soliday. Her wisdom, insight, and endless belief in my abilities has provided me with the strength to complete an educational goal that sometimes felt unattainable. I thank her with all that I have and look forward to many more experiences with her.

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CHAPTER I

INTRODUCTION AND STATEMENT OF PURPOSE

Introduction

With the rising costs of health care services, professionals are being asked to document the effectiveness, efficiency, and effects of treatment (McKinley & Larson, 1990; Olswang, 1990). These components are referred to as treatment efficacy (Olswang, 1990). In the field of speech-language pathology, this efficacy documentation can reflect practitioner accountability to clients, parents of clients, and third party payors that the provided treatment procedures can make a difference in the client's communicative functioning (Olswang, 1990). According to Ventry and Schiavetti (as cited in Olswang, 1990), treatment effectiveness refers to whether or not a particular treatment works. Documentation is needed as to whether a client's behavioral change occurred due to the treatment procedure or due to some other external source. In order to determine the level of treatment efficiency, the effectiveness of two or more treatment procedures are compared. A treatment procedure is determined to be more efficient if clients attain or exceed their intended goal or objective more completely than when using a comparable treatment procedure within the same time frame. A treatment procedure is also considered more efficient if it is more cost effective than a comparable treatment protocol (Kertesz, 1992; McKinley & Larson, 1990; Olswang, 1990). Kertesz (1992) and Olswang (1990) discussed treatment outcomes as they relate to general behavioral changes as a result of the provided treatment. Documentation should reflect that treatment goals are generalized to the client's natural environment. According to McKinley and Larson (1990), treatment effects can also be measured by determining if the client had a positive experience while participating in the treatment program. Unfortunately, a literature review revealed that health care professionals do not use consistent definitions for terms such as efficacy, efficiency, effectiveness, and quality assurance. For the purpose of this study, the terms efficacy and quality assurance will be used interchangeably (a review of definitions found in the literature are outlined in Chapter II).

When determining the efficacy of a treatment program, documentation reflecting both objective and subjective data can be analyzed (King, Morris, & Fitz-Gibbon, 1987; Suchman, 1967). In the field of speech-language pathology, objective or quantitative measures can be obtained from standardized tests or by comparing baseline assessment data to post-test treatment results. As an example, a speech-language pathologist (SLP) could use the Stuttering Severity Instrument for Children and Adults (Riley, 1994) as a quantitative assessment protocol to document characteristics of stuttering. Stuttering is illustrated by an "abnormally high frequency and/or duration of stoppages in the forward flow of speech" (Peters & Guitar, 1991, p.

9). These characteristics would include the frequency of repetitions, duration of the stuttered moment, and physical concomitants. These same variables can then be reviewed, using the same instrument, following a treatment program and compared to the baseline data (Conture & Wolk, 1990). These outcome results can then be interpreted as evidence of program effectiveness (Fink, 1993).

On the other hand, a valuable component of efficacy research and documentation, that should not be minimized, is subjective or qualitative data. Olswang (1990) concurred with King et al. (1987) and Suchman (1967) that the complexity of treatment efficacy transcends documentation of pre- and posttreatment using standardized tests. King et al. (1987) suggested that one aspect of qualitative analysis, in regards to efficacy research, is the testimony of a consumer's perception of program effectiveness. Conture and Wolk (1990) were in agreement with this concept of efficacy research when evaluating the effectiveness of stuttering treatment. Stuttering research findings suggest that stuttering behaviors are interrelated with clients' attitudes and reactions towards their communication impairment (Conture & Wolk, 1990). Since a correlation appears to exist between self-perception and a change in stuttering behavior, information regarding the perception of treatment may be critical when determining the efficacy of a stuttering program. However when treating an individual who stutters, success can be defined differently depending on the perspective. Clinical success may be defined by reducing the stuttering-like characteristics that are impeding the communication process. Even though this clinical success has been documented by the practitioner, the individual who stutters may perceive this in a converse manner. The client may only perceive success when the stuttering has been cured. Since a cure does not exist for stuttering, but can be managed with clinical techniques, the polarity that sometimes exists between clinical success and client perception of success will undoubtedly continue (Peters & Guitar, 1991)

Many variables must be considered when performing efficacy research in the behavioral sciences. When engaging in a retrospective study for efficacy research, Weiner (as cited in McKinley & Larson, 1990) indicated there are problems associated with the experimental design. Design problems may include an insufficient sample size, characteristics of the available subject pool, inconsistencies and vagueness of reported information, and the availability and willingness of potential subjects to participate due to time and/or economic constraints. While recognizing the potential influence of these variables, survey methods, such as interviews or questionnaires, are viewed as an acceptable and appropriate tool for documenting retrospective treatment procedures (McKinley & Larson, 1990).

The qualitative information obtained from a questionnaire is just one component of efficacy research. Both qualitative and quantitative data should be obtained in a longitudinal manner, in order to assist speech-language pathologists in making appropriate modifications in their treatment procedures. This information should assist in supporting or refuting the efficacy of the intervention (McKinley & Larson, 1990).

Statement of purpose

The purpose of this study was to examine the perceptions of past clients with stuttering disorders of the Portland State University (PSU) Speech-Language and Hearing Clinic. This study surveyed previous adult clients and the parents of previous child clients regarding the efficacy of services provided by PSU's Stuttering Disorders Clinic using the American Speech-Language-Hearing Association Consumer Satisfaction Measure (Appendix A). Through this questionnaire, qualitative information regarding the subjects' perceptions of their clinical experience can be obtained. The two essential questions asked for this study were: (a) Do previous clients and parents of previous child clients believe they or their child benefited from the stuttering intervention services received at the PSU clinic? and (b) What are previous clients' and parents of previous clients' attitudes regarding the clinical atmosphere and staff? A descriptive analysis was used to report the qualitative information obtained from the questionnaire relating to the efficacy of PSU's stuttering clinic.

CHAPTER II

REVIEW OF THE LITERATURE

This literature review is focused on definitions of health care outcomes and quality assurance, the need for quality assurance research, methods of documenting quality assurance with a focus on client perceptions of clinical efficacy, and issues surrounding the use of surveys to measure client perception.

Definitions of Health Care Outcomes and Quality Assurance

Health care outcomes have been characterized by Barr and Williamson (1982) as processes in health intervention that are measurable. This current definition of outcomes in health care was derived from Donabedian's report (as cited in Williamson, 1978) that differentiated among the processes, structures, and outcomes revolving around patient care. Donabedian's original definition restricted the outcomes of health care to recovery, restoration of function, and survival. Later the correlation of negative outcomes and patient dissatisfaction were added to the Donabedian definition by White (as cited in Williamson, 1978). However, a differing viewpoint was expressed by Fink (1993) who believed that outcomes in health care are synonymous with measurable results obtained from posttest evaluation.

Ellis (1988) stated that quality assurance is the maintaining effect of complete customer satisfaction. Williamson (1978) noted, though, that quality assurance is relative and not absolute. He indicated that outcomes may be perceived differently by different people. He believed that efficacy, effectiveness, and efficiency are classic components of quality assurance. He defined efficacy as the extent to which intervention can be shown to be beneficial under ideal conditions while effectiveness is concerned with the actual benefits derived in a clinical setting. Efficiency is then seen as the cost factor of treatment compared to the actual benefits received. Even though Williamson (1978) was striving for consistency in the use of operational definitions within the area of quality assurance, he reported that many other professionals do not conform to the use of a uniform definition.

Goldberg (1993) defined efficacy as proving that treatment works, that is, the client is getting better and is functioning at a higher level than before receiving treatment. King et al. (1987) considered the efficacy of clinical programs in terms of achievement of program objectives as well as the attitudes and accomplishments of the program participants.

As noted earlier, the literature does not support a unified definition for terms such as efficacy, treatment outcome, or quality assurance. For the purpose of this study, the terms efficacy and quality assurance will be used interchangeably. However, as research in quality assurance becomes more prevalent, it will be important for disciplines to reach a consensus regarding the lexical terms used to define program or treatment efficacy.

The Need for Quality Assurance Studies

To ensure that individuals are receiving the best possible care and that treatment procedures are efficacious in nature, quality assurance studies are needed in all areas of the health care field. According to Williamson, Hudson, and Nevins (1982), the American consumer has become more concerned with the quality of care, the efficacy of some common medical procedures, as well as the side effects of widely used drugs. Williamson et al. (1982) also stated that patients and third party payors are concerned with the efficient use of monetary resources. The emergence of alternative medical procedures and self-help groups is evidence that traditional health care procedures are being questioned. To reestablish the confidence in these procedures, documentation of the effectiveness and efficiency of current care will reflect the effort that quality assurance will be optimized (Williamson et al., 1982).

Studying the efficacy of a program is only the beginning of the research process. Once there is documentation of a program's effectiveness, continued research is needed to chart the variables that contribute to the success of the program. This process will eventually assist in developing a uniform protocol for evaluating the quality of a program's procedure (Williamson et al., 1982).

SLPs are bound by ethical codes and professional integrity to provide the best possible treatment. This requires the use of procedures that are valid and reliable (Goldberg, 1993). Even though some treatment procedures have been established, Vetter (as cited in Miller, 1991) urged that more efficacy research should be conducted on treatment methods to provide justification for speech intervention services.

Efficacy research will also provide accountable data regarding a clinical program. Olswang (1990) defined accountability as the documentation of all areas of client contact. Third party payors are also requiring program accountability as justification for payment. As economic resources become more scarce, documentation of outcome measures will be one way of ensuring funding for programs (Ellis, 1988). Accurate record keeping by SLPs will assist in fulfilling the requirements of accountability procedures required by third party payors. The SLP should have client documentation reflecting demographic information, diagnosis, clinical history, goals and objectives for intervention, outcome measures, and client perceptions of their clinical experience. This record keeping should not be considered a labyrinth of bureaucracy, but an ongoing chronicle of efficacy data (Zampella & Blake, 1992).

Methods of Documenting Quality Assurance

Complete efficacy data should reflect both quantitative and qualitative measurement. King et al. (1987) and Suchman (1967) believed that this spectrum of measurement could be used as an evaluative tool. They developed a protocol outline along this measurement continuum to assess the efficacy of clinical programs. Fink (1993) supported this concept of measuring a program's effectiveness and described the areas of evaluation that must exist, including: (a) the extent the program achieved its stated goals and objectives; (b) the characteristics of the individuals who provide the services; (c) the characteristics of the people who received the services and the effectiveness of the program as perceived by the consumers; (d) the features of the program that were most successful; and (e) the impact of the costs of the program as well as the social, political, and economic factors that may have influenced the outcomes.

The documentation and evaluation of the above areas provide evidence of a program's effectiveness (Fink, 1993). As King et al. (1987) suggested, testimony of consumers' perception of a program's effectiveness is also important for efficacy research. According to Dube, Trudeau, and Belanger (1994), customer satisfaction of medical and food commodities have been measured successfully with surveys. These surveys have been considered a valid measurement procedure of quality of service from the consumer's point of view even though the data are subjective in nature. Press (1994) concurred that client satisfaction is not just an indicator of quality care, but a valid tool for the measurement of outcome success.

When evaluating the effectiveness of treatment programs for stuttering disorders, Conture and Wolk (1990) believed that, for effective treatment to exist, the person who stutters (person who stutters) must perceive the treatment program to be successful. Although this qualitative assessment of treatment outcome is subjective, it is sometimes the most crucial type of evaluation in regards to stuttering intervention. Conture and Wolk (1990) have suggested that an important parameter for a person who stutters, in order to maintain change and communicative competency, is appropriate self-perception.

The American Speech-Language-Hearing Association (ASHA) also stated that consumer satisfaction is an integral part of efficacy research. The ASHA Committee on Quality Assurance has developed a questionnaire that is designed to elicit consumer feedback across various program and clinical parameters; these include appropriate clinical facilities, timeliness of intervention, interactions with clinical and support staff, service delivery, and client outcome (ASHA, 1990). ASHA suggested that client satisfaction is the determining factor for providing a productive, ongoing association between the client and speech-language pathologist. This documentation of satisfaction can assist a facility director in evaluating whether a client's needs have been met clinically. As identified by the Committee on Quality Assurance, if a client perceives that services have not been appropriately provided, then an evaluation of program and treatment protocol should be reviewed (ASHA, 1990). The ASHA Task Force on Treatment Outcome and Cost Effectiveness have reported data from programs that have used the CSM. The ASHA Task Force sent letters to 102 purchasers of the Consumer Satisfaction Measure (ASHA, 1994) requesting that they share their survey results. ASHA did not report statistics regarding the populations served by those using the survey, however, the data that were obtained came from 11 hospital/rehabilitation centers and 2 university programs (ASHA, 1995). However, ASHA did report that 14 questions out of 21 received a 95% to 100% positive response ratio, three questions received a 90% to 94% positive response ratio, 1 question received an 88% positive response ratio, and 3 questions received a 79% to 85% positive response ratio (Tables 1 and 2). It should be noted that in the 1995 article, the reported ASHA population statistics were grouped together. Individual figures for university and medical populations were not noted in the current research.

Issues Surrounding the Use of Surveys

The subjective nature of measuring consumer attitudes has led some authors to question the validity of the results. Even though Williams (1994) has indicated that a component of quality assurance is the reflective evaluation of a patient's experience, he questions if consumer satisfaction surveys truly provide a depiction of patient satisfaction. However, Donabedian (as cited in Williams, 1994) argued that ultimately, the success of health care treatment is determined by the client's perception of the results. These perceptions, then, are measurable parameters for analyzing quality. Williams' belief was that current questionnaires do not embody empirical measures of validity, but since there is an advocacy, by other professionals, regarding this type of

Table 1

Percentage of Positive Results Obtained from a 1995 ASHA Survey and Compared to the Positive Percentage Obtained from the Adult Subjects

Item #	Survey Question	ASHA (%)	Adult (%)
1A	My appointments were scheduled in a reasonable period of time.	96	89
1B	I was seen on time for my scheduled appointments.	96	100
2A	I am better because I received these services.	84	43
2B	I feel I benefitted from speech-language pathology services.	84	78
3A	The support staff who served me were courteous and pleasant.	97	100
3B	The clinician who served me was courteous and pleasant.	99	100
3C	Staff considered my special needs.	96	78
3D	Staff included my family or other persons important to me in the services provided.	93	56
4A	My clinician was prepared and organized.	97	100
4B	The procedures were explained to me so that I could understand.	99	100
4C	My clinician was experienced and knowledgeable.	98	100
5A	Health and safety precautions were taken when serving me.	92	56
5B	The environment was clean and pleasant.	97	67
5C	The environment was quiet and free of distractions	95	67
5D	The building and treatment areas were easy to get to.	79	67
6A	I feel that the length and frequency of my service program was appropriate.	96	40
6B	My clinician planned ahead and provided sufficient instruction and education to help me retain my skills after my program ended.	88	44
6C	I feel that my program was well managed, involving other services when needed.	91	44
7A	Overall, the program services were satisfactory.	98	100
7B	I would seek your services again if needed.	98	78
7C	I would recommend your services to others.	99	89

Table 2

Percentage of Positive Results Obtained from a 1995 ASHA Survey and Compared to the Positive Percentage Obtained from the Parent Subjects

Item #	Survey Question	ASHA (%)	Parent (%)
1A	My appointments were scheduled in a reasonable period of time.	96	95
1B	I was seen on time for my scheduled appointments.	96	100
2A	I am better because I received these services.	84	76
2B	I feel I benefitted from speech-language pathology services.	84	86
3A	The support staff who served me were courteous and pleasant.	97	91
3B	The clinician who served me was courteous and pleasant.	99	91
3C	Staff considered my special needs.	96	68
3D	Staff included my family or other persons important to me in the services provided.	93	86
4A	My clinician was prepared and organized.	97	95
4B	The procedures were explained to me so that I could understand.	99	90
4C	My clinician was experienced and knowledgeable.	98	90
5A	Health and safety precautions were taken when serving me.	92	82
5B	The environment was clean and pleasant.	97	82
5C	The environment was quiet and free of distractions	95	82
5D	The building and treatment areas were easy to get to.	79	68
6A	I feel that the length and frequency of my service program was appropriate.	96	79
6B	My clinician planned ahead and provided sufficient instruction and education to help me retain my skills after my program ended.	88	77
6C	I feel that my program was well managed, involving other services when needed.	91	55
7A	Overall, the program services were satisfactory.	98	86
7B	I would seek your services again if needed.	98	82
7C	I would recommend your services to others.	99	91

measurement tool, he indicated that questionnaires must be developed and interpreted with "common sense" (1994).

Another issue that may affect the results of a questionnaire survey is consumer bias. Sudman and Bradburn (1982) suggested that some survey respondents only answer with positive responses because it provides them with positive emotional reinforcement. To avoid skewed results due to consumer bias, it is important to use questions on the survey instrument that are similar to questions on other surveys. Results can then be compared across studies to reflect reliability and validity (Sudman & Bradburn, 1982).

In an attempt to objectify qualitative information, McDowell and Newell (1987) suggested that a questionnaire also be completed by someone who is familiar with the respondent. The results could then be compared to reflect the response validity. McDowell and Newell further contended that individuals' perceptions should be interpreted as being valid because biases cannot be observably measured.

In order for results from questionnaires to be perceived as being more objective than subjective, the response scale should reflect an effort to establish internal validity. Sheatsley (1983) suggested this can be established by having a response scale that provides multiple categorical choices. He indicated, though, that individuals tend to choose a response that encompasses positive overtones rather than negative connotations. To allow respondents this latitude in their choice making, Aday

(1989) suggested that an ordinal response scale, such as the Likert Scale, be used when collecting data using a questionnaire format.

Sheatsley (1983) believed that question presentation, such as not having all the questions with positive overtones in the first position, is important in order to minimize response biases. Sudman and Bradburn (1982) attempted to combat impulse responses by starting the scale with the least socially desirable response so the respondent would be forced to read each response before making a decision. Other researchers, such as McDowell and Newell (1987), believed that question presentation was up to the developer. Unfortunately, survey research methodology is not consistent within the field of efficacy research.

Because a survey can possess so much variability, researchers must create an instrument that attempts to objectify research results. Sudman and Bradburn (1982) believed that the foundation for creating a tool that can be interpreted as being reliable and valid is in the design of the question and questionnaire. There are several steps questionnaire designers need to consider when designing a survey, including: (a) asking the right questions, (b) asking the respondents in the right way, (c) issues of cost and retrieval of the questionnaires, and (d) format and questionnaire design (Fink, 1993).

When using a survey instrument to obtain data for a research project, it is important to maximize the response rate, or number of returned surveys. A maximized response rate, that increases statistical power, can allow researchers to make high probability assertions that are related to their research questions (Owen, Owen, & Middleton, 1994). In order to increase the response rate, Dillman (1983) suggested using a cover letter to explain the importance of the survey and also the use of follow-up postcards to remind participants to send in their survey. In order to reduce the costs of the follow-up procedure, Alwin (1977) suggested telephone follow-up. These follow-up telephone calls should be made to survey participants who are delinquent in returning their surveys. The follow-up should occur between the 12th and 16th day after the arrival of the first returned survey. Sudman (1967) and Alwin (1977) both have suggested that telephone follow-ups will optimize return rates while saving time and money.

CHAPTER III

METHODS AND PROCEDURES

Methods

Anderson (1996) and Murphy (1996) developed a method and procedure outline for similar research involving parental perceptions of the efficacy of clinical intervention in a supervised clinical setting. Their methods and procedures have been adopted for this present study. The target of their research pertained to PSU's Articulation and Language Disorders Clinic, while the focus of this study was the PSU Stuttering Disorders Clinic.

Subjects

The subjects for this survey were individuals who have previously participated in PSU's Stuttering Disorders Clinic. To meet criteria for selection, the clients were enrolled in the PSU Stuttering Clinic between 1988 and 1995 and had received at least four, 50-minute sessions of direct clinical intervention. Demographic information, for the subjects who met criteria, was obtained from clinical records of the PSU Speech-Language and Hearing Clinic. The demographic information recorded for this study were: (a) the age of the client when exited from PSU clinic, (b) the date last seen at the PSU clinic, (c) the number of 50-minute clinic sessions client attended, and (d) the stuttering severity of the client upon exit from the PSU clinic (Tables 3 and 4). The subjects were chosen by reviewing all of PSU's filed records for the stuttering clinic and creating a subject pool from those who met the stated subject criteria. Once each file for the stuttering clinic was reviewed, a subject pool consisting of 40 adults and 50 parents of children was obtained. Only those subjects who signed an informed consent form (Appendix B for adult subjects; Appendix C for parent subjects) and returned the questionnaire, were included in the study.

Instrumentation

Standardized measurement instruments were not available for evaluating client perceptions of the efficacy of clinical intervention in a supervised clinical setting; therefore, the Consumer Satisfaction Measure (CSM; ASHA, 1994), a questionnaire that was developed by ASHA, was used in this study (Appendix A). The CSM was used for this study instead of an already existing PSU questionnaire because of the importance of collecting data with an instrument that has been already used to collect national statistics. By using the CSM for this project, results could then be compared to the national statistics collected by ASHA, also using this protocol, in order to reflect reliability and validity (Sudman & Bradburn, 1982).

The CSM consists of a self-mailing, one-page questionnaire with instructions for administration. A consent form and cover letter were sent to both adult clients (Appendix B) and to the parents of child clients (Appendix C) along with the questionnaire. As the questionnaire is designed to be answered from the client's

Table 3

Demographic Information Pertaining to Adult Subjects Who Met Criteria

Average age of adult subject at exit from clinic	31 years, 9 months
Average of date last seen in clinic	1992
Average number of sessions attended	32 sessions
Range of ages at exit from clinic	16 years to 80 years
Range of dates last seen in clinic	March 1988 to March 1995
Range of number of sessions attended	6 to 119 sessions
Range of stuttering severity	Mild to Severe
Mode of subject age	31 years
Mode of date last seen in clinic	1988 and 1994
Mode of number of sessions attended	13, 18, and 26 sessions
Mode of stuttering severity	Mild and Moderate-Severe

Table 4

Demographic Information Pertaining to Parent Subjects Who Met Criteria

Average age of adult subject at exit from clinic	8 years, 4 months
Average of date last seen in clinic	1992
Average number of sessions attended	30 sessions
Range of ages at exit from clinic	3 years to 18 years
Range of dates last seen in clinic	October 1987 to March 1995
Range of number of sessions attended	11 to 62 sessions
Range of stuttering severity	Mild to Severe
Mode of subject age	8 years, 3 months to 8 years, 8 months
Mode of date last seen in clinic	1988 and 1995
Mode of number of sessions attended	12, 13, 18, 26, and 27 sessions
Mode of stuttering severity	Mild and Moderate

viewpoint, the cover letter that was sent to the parents of child clients were instructed to answer the questions as if they were the person receiving the service. To assure subject anonymity, each questionnaire was assigned an identification number for all coding and data analysis operations. The questions on the CSM were designed to elicit subject perceptions regarding their clinical intervention as well as satisfaction with the procedures used in the clinical setting.

The questionnaire used a six-point Likert format and included 21 questions regarding seven areas of clinical concern (Appendix A). The overall areas covered in the survey are:

1. The timeliness and promptness of the staff.
2. The perceived benefit of the services received.
3. The professionalism of the clinician, supervisors, and support staff.
4. The training and qualifications of the clinician.
5. The perception of environmental conditions.
6. The perception of the services provided.
7. Were services satisfactory (i.e., retained if needed or recommended to others).

To address the two essential questions posed for this study, the responses were grouped according to the issues they addressed. Question area 2 and 7 of the CSM addressed the first question posed in this study: Did the subjects believe they or their child benefited from services at the PSU Stuttering Clinic? Question areas 1, 3, 5, and

6 addressed the second question: What were the subjects' attitudes regarding the clinical atmosphere and staff? The questions were closed ended, meaning the respondents were required to choose from only six responses. The response codes were orthographic with the key listed above the questions. Six choices were available to choose: strongly agree (SA), agree (A), neutral (N), disagree (D), strongly disagree (SD) and, not applicable (NA). Subjects were instructed to circle the response that best suited their perceptions. A section at the end of the survey was also provided for any additional comments.

It should be noted that two Likert response line irregularities were discovered on the survey after they were returned for data analysis. CSM question 2 (the perceived benefit of services received) lists 2 sub-item questions. However, the design of the survey included an additional Likert response line. CSM question 6 (the perception of the services provided) lists 3 sub-item questions. For sub-item 6A, the Likert response line was omitted (Appendix A). It appeared from the data analysis that some respondents compensated for the response line irregularities by aligning their response to the appropriate question or by orthographically noting an answer. However, it appeared from analysis that not all respondents realized there was a casual difference between the survey questions and the response lines. Because of this, not all respondents recorded a response for question 2A or 6A.

Procedures

Data Collection

Questionnaires were sent to the designated adult and parental subjects. Each questionnaire was coded with either an *A* for adult or a *P* for parent. This allowed for accurate tabulation of results when the questionnaires were returned. A consent form and cover letter (Appendixes B and C) were also included with the mailing of each questionnaire to each subject. The cover letter consisted of the following information:

1. An explanation of the survey and the purpose of the survey.
2. A statement as to why the respondent's reply is important.
3. Assurance of confidentiality.
4. Instructions on how to fill out the survey.
5. A contact person to answer any questions that they may have.

Five subjects, whose names were randomly chosen, were contacted 5 days after the original mail-out to determine the clarity of the instructions. Vigderhous (1977) suggested that the longer the time elapsed between the original mail-out and the follow-up contact, the less effective the follow-up contact will be. According to Alwin (1977), the most effective way of increasing response rates and reducing cost is by using a combination of telephone, mail, and personal interviews. To reduce cost and the amount of time needed for completing the survey, this study used a telephone follow-up as a reminder to complete and return the survey. The telephone follow-up was made 2 weeks from the day the first survey was returned for data analysis. It was known which subjects' had returned their surveys by the printed and signed name on the returned consent form.

An inherent variable when using a mail-out questionnaire is the possibility of a non-returned survey. Babbie (as cited in Pannbacker & Middleton, 1994) indicated that an adequate return rate for questionnaires is approximately 50%. Taking into account that this retrospective analysis goes back 5 years, this researcher hoped to obtain a return rate of approximately 40%.

Data Entry

Returned questionnaires were tracked by the printed name on the returned consent form and the code for adult or parent on the reverse side of the survey. Data were entered on a spreadsheet according to question number and the response code circled for that number. For coding purposes only, numerical response codes were assigned to each corresponding orthographic value (i.e., 1 = SA, 2 = A, 3 = N, 4 = D, 5 = SD, and 6 = NA). If the subject did not respond to a particular question, it was coded as a unable to rate which was given a numerical value of 9. The data were also grouped according to adult and parent responses (Appendixes D and E) which allowed for results to be documented and analyzed separately and for conclusions to be drawn without being skewed due to sample differences. The written comments section were analyzed to determine the most common observations made by the subjects. These were listed separately in order of predominance.

Data Presentation

Because this study involved one group of respondents (individuals who have participated in Portland State University's Stuttering Clinic), with no statistical comparisons being made to other groups or studies, descriptive analysis were used to represent the data accrued in this study. A frequency distribution of the response groups was compiled to determine the satisfaction level for each survey item on the CSM, and the results were displayed using a bar graph. The mode for each question, or the most frequently occurring response, was also displayed (Figures 1, 2, 3, and 4).

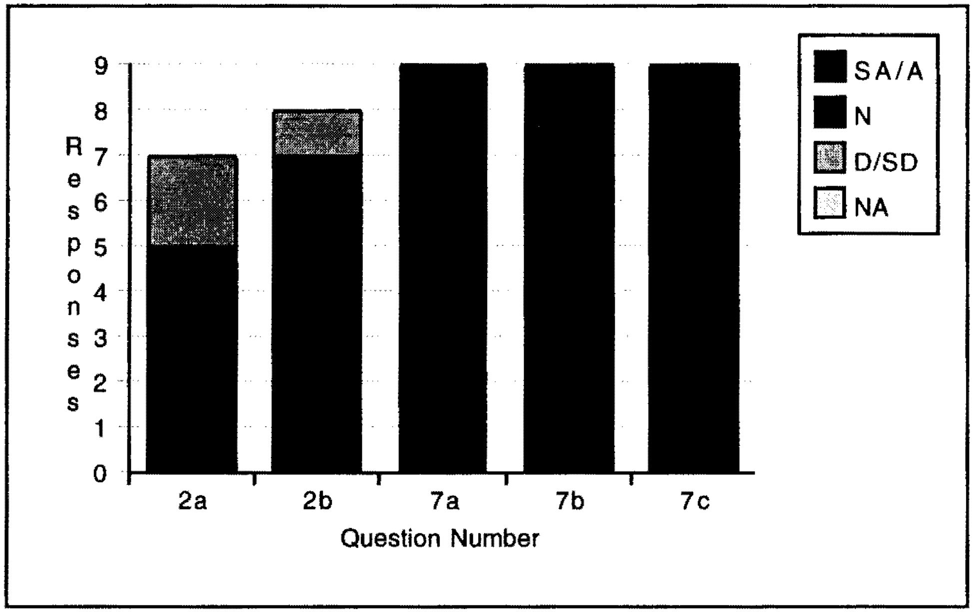

Figure 1

Adult Subjects: Frequency Distribution for Survey Items Related to Research Question 1
Do previous clients believe they benefitted from the stuttering intervention received at the PSU clinic?

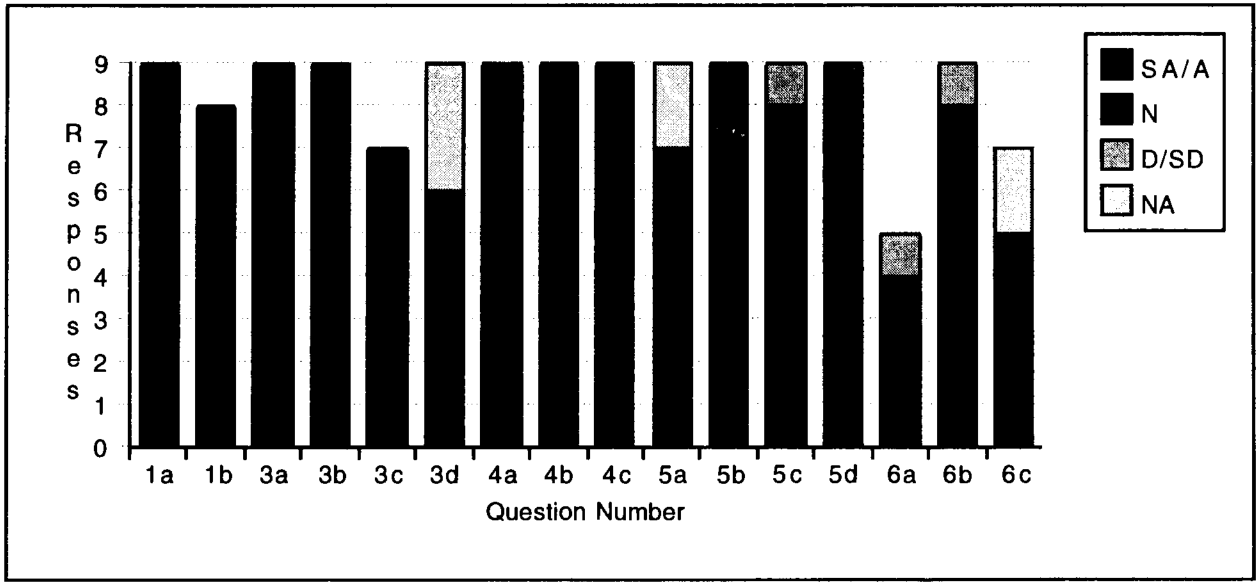

Figure 2

Adult Subjects: Frequency Distribution for Survey Items Related to Research Question 2
What were the subjects' attitudes regarding the clinic and staff?

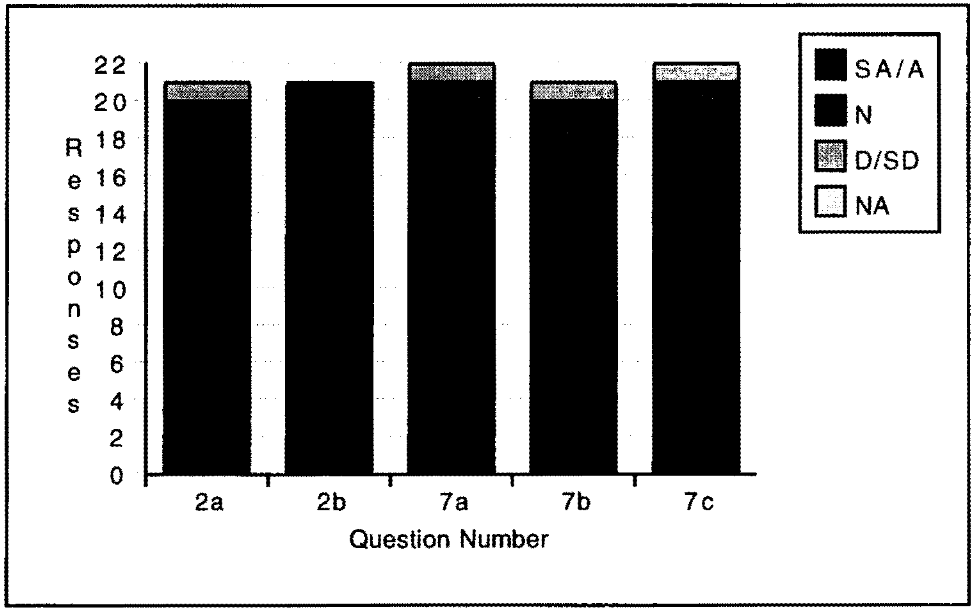

Figure 3

Parent Subjects: Frequency Distribution for Survey Items Related to Research Question 1
Do parents of previous child clients believe their child benefitted from the stuttering intervention services received at the PSU clinic.

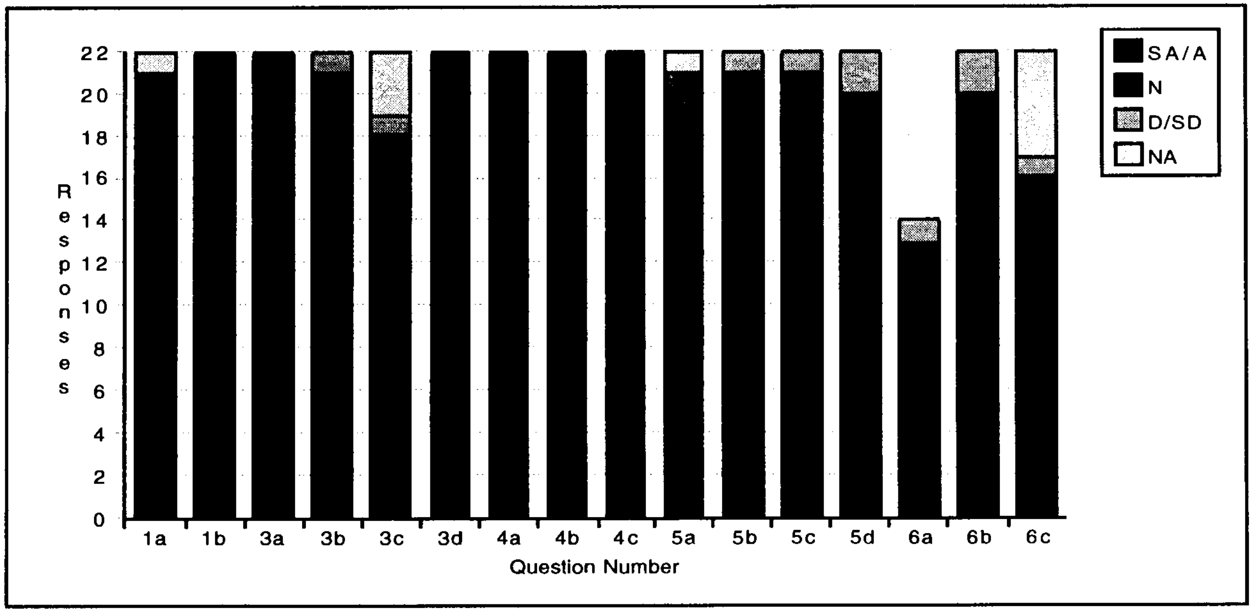

Figure 4

Parent Subjects: Frequency Distribution for Survey Items Related to Research Question 2
What were the subjects' attitudes regarding the clinic and staff?

CHAPTER IV

RESULTS AND DISCUSSION

Results

The purpose of the study was to assess adult client perceptions and parental perceptions of the effectiveness and quality of services received by those individuals who had participated in the PSU Stuttering Clinic. A questionnaire was used to obtain the data for this study. Two research questions were asked: (a) Do previous clients and parents of previous child clients believe they or their child benefited from the stuttering intervention services received at the PSU clinic? and (b) What are previous clients' and parents of previous clients' attitudes regarding the clinical atmosphere and staff?

Return Rates

Preliminary to presenting the results, return rates and demographic data are presented. Forty questionnaires were sent out to adults who had previously participated in the PSU Stuttering clinic and 50 questionnaires were sent out to parents whose children had also participated in the PSU Stuttering clinic. For the 40 adults, 9 questionnaires (22.5%) were returned. All of the returned questionnaires were used in the final tabulation of results. Of those 31 questionnaires not returned, 4 were undeliverable. The remaining 27 subjects were followed up with telephone calls. Of these 27 subjects, 15 had either moved or changed their telephone number. Attempts were made to locate new telephone numbers for each subject, however no forwarding telephone numbers were available using the telephone book or directory assistance for the Portland, Oregon metropolitan area. For 12 of these 27 subjects, contact was made either by telephone conversation or via an answering machine. This contact served as a reminder that a survey had been sent out, and if interested, the subject should complete the information that was sent and returned to PSU. Only 1 subject who was contacted via telephone indicated that he was not interested in participating in the study because he believed "he was too old." Nonetheless, the follow-up telephone contact did not yield any additional returned surveys.

For the 50 subjects who were parents, 23 questionnaires (46%) were returned. Twenty-two of the returned questionnaires were used in the final tabulation; one was excluded because the respondent did not sign the informed consent form. They indicated that too much time had passed from the last time the child had attended the PSU Stuttering clinic in order to provide accurate feedback (i.e., 5 years). Six of the 50 questionnaires sent out were undeliverable. Of the remaining 43 subjects, 20 returned their questionnaires in a timely fashion. For the remaining 23 subjects, the follow-up telephone procedure was initiated. Of these 23 subjects, 12 had either moved or changed their telephone number. Attempts were also made to locate new telephone numbers for each subject; however, no forwarding telephone numbers were available using the telephone book or directory assistance for the Portland, Oregon, metropolitan area. For 11 of the 23 subjects, contact was made either by phone conversation or via an answering machine. This contact served as a reminder that a survey had been sent out and if interested, the subject should complete the information that was sent and returned to PSU. There was only one subject, who was contacted via telephone, who indicated that she and her husband did not want to participate. This subject did not provide a reason for not wanting to participate. However, the follow-up telephone contact did yield two additional returned surveys.

Demographics: Adult Subjects

Demographic information for respondents and nonrespondents were compared to determine if trends affecting the return rate existed. Appendix F contains information pertaining to the ages, frequency of sessions, dates last seen in clinic, and severity for those adult clients who did and did not return their questionnaires. Of the 9 adult questionnaires that were returned and used in the tabulation of results, the average age of the adult client upon exiting the Stuttering Disorders Clinic was 31 years, 9 months of age (range = 17 to 40 years). The mean number of 50-minute sessions, in which these subjects participated, was 29, with a range of 7 to 73 sessions. The average length of time since treatment was discontinued was 4 years (i.e., 1992), with a range from March 1989 to March 1995. Each subject's severity of stuttering, upon discharge from clinic, was also noted for comparison. The range of severity for those who returned questionnaires was mild to moderate-severe. Three subjects were described as exhibiting mild stuttering, 1 subject was described as being mild-moderate, 2 subjects were described as being moderate, and 3 subjects were described as being moderate-severe.

When describing the severity of a person who stutters, most stuttering protocols use an ordinal level of measurement (i.e., mild, moderate, severe). One assessment tool which uses these descriptive levels of measurement is the Stuttering Severity Instrument for Children and Adults-third edition (SSI-3, Riley, 1994). However, it should be noted that there are other severity rating scales which can be used for profiling a person who stutters. One example of another assessment measure is the Van Riper Severity Scale (Van Riper, 1982). For the purpose of this study, though, and due to the documented use of the SSI-3 at PSU, the SSI-3's severity ratings will be the reference used in this research project.

Of the 27 questionnaires that were not returned (which excludes those that could not be delivered), the average age of the adult client upon exiting the PSU Stuttering Disorders Clinic was 31 years, 9 months of age (range = 16 to 80 years). The mean number of 50-minute sessions in which these subjects participated was 34 with a range of 6 to 119 sessions. The average length of time since treatment was discontinued was 5 years (i.e., 1991), with a range from March 1988 to March 1995. The range of severity for those who did not return questionnaires was mild to severe. There were 12 subjects who were described as having mild stuttering, 5 subjects who were described as having mild-moderate stuttering, 6 subjects described to have moderate stuttering, and 4 subjects described as having severe stuttering.

It appears from the demographic information that the length of time since release from treatment could have influenced the return rate of questionnaires for adults who had previously received stuttering treatment at PSU (e.g., the less time that had passed, the better the return rate). The information also reflects that those adult individuals who did not return their questionnaires participated in a greater number of 50-minute sessions. In regards to stuttering severity, the information reflects that the most frequently observed severity for those who did not return their questionnaires was mild compared to mild and moderate-severe for those who did return their questionnaires. The return rate did not appear to be affected by the subjects' ages. It should be noted that these conclusions are descriptive in nature and have not been analyzed using statistical methodology.

Demographics: Parent Subjects

Demographic information for respondents and nonrespondents were compared to determine if trends affecting the return rate existed. Appendix F contains information pertaining to the ages, frequency of sessions, dates last seen in clinic, and severity for those parent subjects who did and did not return their questionnaires. Of the 22 parent questionnaires that were returned and used in the tabulation of results, the average age of a child upon exiting the PSU Stuttering clinic was 8 years, 11 months of age (range = 3 years 5 months to 14 years 10 months). The mean number of 50-minute sessions in which these children participated was 32, with a range of 12 to 62 sessions. The average length of time since treatment was discontinued was 3 years (i.e., 1993), with a range from March 1990 to March 1995. Each child's severity of stuttering upon discharge from clinic was also noted for comparison. The range of severity for those children whose parents returned questionnaires was mild to severe. There were 3 children who were described as being mild, 5 children who were described as being mild-moderate, 10 children were described as being moderate, and 2 children were described as individuals with severe stuttering characteristics. This outline reflects that the mode for severity is children who have moderate stuttering characteristics.

Of the 21 questionnaires not returned (which excludes those that could not be delivered), the average age of the child upon exiting the PSU clinic was 9 years, 5 months of age. The range of ages for these children were 3 years, 5 months to 18 years of age. The mean number of 50-minute sessions was 28 with a range of 11 to 56 sessions. The average length of time since treatment was discontinued was 5 years (i.e., 1991). The range of dates from when these children were last seen by the PSU Stuttering clinic was between October 1987 and March 1995. Each child's severity of stuttering, upon discharge from clinic, was also noted for comparison. The range of severity for those children whose parents elected not to return the research questionnaires was mild to severe. There were 4 children who were described as being mild, 1 child was described as a mild-moderate, 10 children were described as moderate, 1 child as a moderate-severe, and 7 children were characterized as severe.

It appears that the length of time since the release from treatment and the number of 50-minute treatment sessions were factors in the return rate of questionnaires for parents of children who had participated in PSU's Stuttering clinic. The information reflects that the average age of a child for the questionnaires that were returned was 18 months less than the average age of a child for the questionnaires that were not returned (i.e., 8 years, 11 months for returned questionnaires, and 9 years, 5 months for non-returned questionnaires). The return rate did not appear to be affected by the child's severity of stuttering upon the exit from PSU's clinic. It should be noted that these conclusions are descriptive in nature and have not been compared using statistical methodology.

Data Analysis

Of the adult subjects who returned their questionnaires, 79% of their responses were positive, whereas 3% were negative, 14% were neutral, and 4% were not applicable. Of the parent questionnaires that were returned, 84% of their answers were positive; whereas 3% were negative, 11% were neutral, and 2% were not applicable. For the purpose of determining if answers to the two research questions are generally positive or negative, all *strongly agree* and *agree* responses were collapsed into one category as were the *strongly disagree* and *disagree* responses. However, for accurate data recording and analysis, all categories, as well as modal responses, were also noted. For accurate percentage reporting, unclear and multiple responses were eliminated in the tabulation of results. For the total number of responses for each sub-item, see Appendixes D and E .

Research Question 1: Adult Subjects

Survey items 2 and 7 were related to the first research question: Do previous clients and parents of previous child clients believe they or their child benefited from the stuttering intervention services received at the PSU clinic? Figure 1 notes the frequency distribution for items pertaining to the first research question as related to the adult subjects. Survey item number 2 asked the subjects if they believed they were better due to the services they received (2A) and if they felt they benefited from speech-language pathology services (2B). Forty-three percent (3/7) of the respondents agreed that they were better because of the services received, while 29% (2/7) disagreed, 29% (2/7) were neutral (two responses were omitted from the total due to the previously noted line item irregularity). Additionally, it appeared that 78% (7/9) of the respondents agreed that they benefited from the services received, 11% (1/9) appeared to disagree, and 11% (1/9) were not counted due the line item irregularity. Survey item 2A had three modals: strongly agree, disagree, and neutral. The modal response for survey items 2B was strongly agree.

Survey item number 7 asked the subjects if the program services were satisfactory (7A), whether services at the clinic would be sought again if needed (7B), and whether they would recommend the services of the clinic to others (7C). One hundred percent (9/9) of the respondents indicated that they felt the services received were satisfactory. Seventy-eight percent (7/9) of the respondents said they would seek PSU's services again if needed, whereas 0% disagreed, and 22% (2/9) indicated they were neutral. Eighty-nine percent (8/9) of the respondents indicated that they would recommend PSU's services to others, whereas 0% disagreed, and 11% (1/9) indicated they were neutral. The modal response for survey item 7A was agree, while item 7B had a modal of strongly agree. Survey item 7C had two modals: Strongly agree and agree (Figure 1).

In summary for the adults, survey items 2 and 7 related to the first research question this study sought to answer: Whether the subjects believed they benefited from services received at the clinic. Overall 81% (34/42) of the responses to survey item 2 and 7 were positive, 7% (3/42), and 12% (5/42) were neutral. It appears that the answer to the first research question, for the adult subjects, is yes; the adult subjects believed they benefited from the stuttering intervention services received at the PSU clinic.

Research Question 2: Adult Subjects

Survey items 1, 3, 4, 5, and 6 related to the second research question: What are the subjects' attitudes regarding the clinic atmosphere and staff? Figure 2 notes the frequency distribution for questions pertaining to the second research question as related to the adult subjects. The first survey item concerned timeliness of appointments. Eighty-nine percent (8/9) of the respondents indicated that their appointment was scheduled within a reasonable period of time, 0% disagreed, and 11% (1/9) were neutral. Eighty-nine percent (8/9) also agreed that they were seen on time for scheduled appointments, whereas 0% disagreed, and 11% (1/9) were not used in the calculation of results due to a subject not responding to this particular question. The modal response for survey item 1A was strongly agree. Survey item 1B had two modals: strongly agree and agree.

The third survey item concerned staff considerations. One hundred percent (9/9) of the respondents indicated that the support staff (e.g., secretary, transporter, receptionist, assistant) were courteous and pleasant. One hundred percent (9/9) of the respondents also agreed that the graduate clinician was courteous and pleasant. Seventy-eight percent (7/9) of the respondents agreed that the staff considered any special needs, such as age, culture, education, or handicapping conditions, that the client might have had, whereas 0% indicated disagreement, 11% (1/9) indicated that they were neutral, and 11% (1/9) responded with not applicable. Fifty-six percent (5/9) of the respondents agreed that the staff included family members or other important persons in the services provided, whereas 0% indicated disagreement, 11% (1/9) indicated that they were neutral, and 33% (3/9) responded with not applicable. The modal response for survey 3A is agree. The modal response for survey items 3B and 3C was strongly agree. Survey item 3D had two modals: agree and not applicable.

The fourth question pertained to the training and qualifications of the graduate clinicians who served the adult subjects. One hundred percent (9/9) of the respondents agreed that their clinician was prepared and organized. One hundred percent (9/9) also agreed that the procedures were explained in a way that they could understand and that their individual clinicians were experienced and knowledgeable. The modal response for survey items 4A and 4C was agree, whereas item 4B had a model response of strongly agree.

The fifth question concerned a secure, comfortable, attractive, distraction-free, easy-to-reach environment. Fifty-six percent (5/9) of the respondents agreed that health and safety precautions were taken, whereas 0% disagreed, 22% (2/9) were neutral, and 22% (2/9) responded with not applicable. Sixty-seven percent (6/9) indicated that the environment was clean and pleasant, whereas 0% disagreed, and 33% (3/9) provided a neutral response. Sixty-seven percent (6/9) of the subjects agreed that the environment was quiet and free of distractions, whereas 11% (1/9) disagreed, and 22% (2/9) indicated a neutral response. Sixty-seven percent (6/9) also agreed that the building and treatment areas were easy to reach, whereas 0% disagreed, and 33% (3/9) indicated a neutral response. The modal response for survey items 5A, 5B, and 5D was agree. Survey item 5C had two modals: strongly agree and agree.

Survey item number 6 concerned the efficiency and comprehensives of services provided. As previously mentioned, a Likert scale line for sub-item 6A was omitted. However, 5 respondents wrote in their own Likert response to item 6A: I feel that the length and frequency of my service program were appropriate. To note these responses, forty percent (2/5) of the written in responses for 6A were positive, whereas 20% (1/5) were negative, and 40% (2/5) were neutral. Forty-four percent (4/9) of the respondents indicated that the clinicians planned ahead and provided sufficient instruction and education to help the adult clients retain their skills after the program ended, 11% (1/9) disagreed, and 44% (4/9) were neutral (rounding procedure led to a total of only 99%). Forty-four percent (4/9) of the respondents felt the program was well managed, involving other services when needed (i.e., teachers, dentist, physician), whereas 0% disagreed, 11% (1/9) were neutral, 22% (2/9) responded with not applicable, and 22% (2/9) were omitted by a respondent (rounding procedure led to a total of only 99%). From the answers that were written in by the respondents for 6A, it appears that the 2 modal responses for survey item 6A were agree and neutral. The modal response for 6B was neutral, whereas the modal response for 6C was agree.

Survey items 1, 3, 4, 5, and 6 related to the second question this study sought to answer: What are previous clients' and parents of previous child clients' attitudes regarding the clinical atmosphere and staff? Seventy-seven percent (106/137) of the total responses for items 1, 3, 4, 5, and 6 were positive, whereas 2% (3/137) were negative, 15% (20/137) were neutral, 6% (8/137) responded with not applicable. The results suggest that previous adult clients (those who returned their survey) were satisfied with the clinical atmosphere and staff at PSU.

Research Question 1: Parent Subjects

As previously mentioned, survey item numbers 2 and 7 related to the first research question: Do previous clients and parents of previous child clients believe they benefited from the stuttering intervention services received at the PSU clinic? Figure 3 notes the frequency distribution for items pertaining to the first research question as related to parent subjects. Survey item number 2 asked subjects if they believed they (their child) were better due to the services they (their child) received and if they (their child) benefited from speech-language pathology services. From the data obtained, it appeared that 76% (16/21) of the respondents agreed that they were better because of the services received, while 5% (1/21) disagreed, 19% (4/21) were neutral. Additionally, it appeared that 86% (18/21) of the respondents agreed that they benefited from the services received, 0% disagreed, 14% (3/21) were neutral. Survey item 2A had a modal response of agree, while survey item 2B had a modal response of strongly agree.

Survey item number 7 asked the subjects if the program services were satisfactory, whether services at the clinic would be sought again if needed, and whether parents would recommend the services of the clinic to others. Eighty-six percent (19/22) of the respondents indicated that they felt the services received were satisfactory, whereas 5% (1/22) disagreed, and 9% (2/22) were neutral. Eighty-two percent (18/22) of the respondents said they would seek PSU's services again if needed, whereas 5% (1/22) disagreed, 9% (2/22) were neutral, and 5% (1/22) were not used in the calculation of results due to a subject not responding to this particular question. Ninety-one percent (20/22) of the respondents indicated that they would recommend PSU's services to others, whereas 5% (1/22) disagreed, and 5% (1/22) were neutral (total percentage equaled 101 due to rounding procedure). Survey item 7A had two modal responses: strongly agree and agree, while the modal response for survey items 7B and 7C was strongly agree (Figure 3).

Survey items 2 and 7 related to the first research question as to whether the subjects believed that they (their child) benefited from services received at the clinic. Overall, 85% (91/107) of the responses to both survey items 2 and 7 were positive, 4% (4/107) were negative, 11% (12/107) were neutral. The data suggest that the answer to the first research question, for the parent subjects, is yes; the subjects believed that their children benefited from the stuttering intervention services received at the PSU clinic.

Research Question 2: Parent Subjects

Survey items 1, 3, 4, 5, and 6 related to the second research question: What are the subjects' attitudes regarding the clinic atmosphere and staff? Figure 4 notes the frequency distribution for questions pertaining to the second research question. The first survey item concerned timeliness of appointments. Ninety-five percent (21/22) of the respondents indicated that their appointment was scheduled within a reasonable period of time, 0% disagreed, 0% were neutral, and 5% (1/22) responded with not applicable. One hundred percent agreed that they were seen on time for scheduled appointments. The modal response for survey items 1A and 1B was strongly agree.

The third survey item concerned staff considerations. Ninety-one percent (20/22) of the respondents indicated that the support staff (e.g., secretary, transporter, receptionist, assistant) were courteous and pleasant, whereas 0% disagreed, and 9% (2/22) were neutral. Ninety-one percent (20/22) of the respondents also agreed that the graduate clinician was courteous and pleasant, whereas 5% (1/22) were negative, and 5% (1/22) were neutral. Sixty-eight percent (15/22) of the respondents agreed that the staff considered any special needs, such as age, culture, education, or handicapping conditions, that the client might have had, whereas 5% (1/22) disagreed, 14% (3/22) were neutral, and 13% (3/22) responded with not applicable. Eighty-six percent (19/22) of the respondents agreed that the staff included family members or other important persons in the services provided, whereas 0% disagreed, and 13% (3/22) indicated they were neutral. The modal response for survey items 3A, 3B, 3C, and 3D was strongly agree.

The fourth question pertained to the training and qualifications of the graduate clinicians who served the child clients and interacted with their parents. Ninety-five percent (21/22) of the respondents agreed that their clinician was prepared and organized, whereas 0% disagreed, and 5% (1/22) were neutral. Ninety-one percent (20/22) agreed that the procedures were explained in a way that they could understand, whereas 0% disagreed, and 9% (2/22) indicated they were neutral.

Ninety-one percent (20/22) of the respondents also agreed that their clinician was experienced and knowledgeable, whereas 0% disagreed, and 9% (2/22) indicated they were neutral. The modal response for survey items 4A, 4B, and 4C was strongly agree.

The fifth question concerned a secure, comfortable, attractive, distraction-free, easy to reach environment. Eighty-two percent (18/22) of the respondents agreed that health and safety precautions were taken, whereas 0% disagreed, 13% (3/22) were neutral, and 5% (1/22) responded with not applicable. Eighty-two percent (18/22) of the respondents agreed that the environment was clean and pleasant, whereas 5% (1/22) disagreed, and 13% (3/22) were neutral. Eighty-two percent (18/22) of the parent subjects also agreed that the environment was quiet and free of distractions, whereas 5% (1/22) disagreed, and 13% (3/22) provided a neutral response. Only 68% (15/22) of the respondents agreed that the building and treatment areas were easy to reach, whereas 9% (2/22) disagreed, and 23% (5/22) provided a neutral response. The modal response for survey items 5A, 5B, 5C, and 5D was agree.

Survey item number 6 concerned the efficiency and comprehensivness of services provided. As previously mentioned, a Likert scale line for sub-item 6A was omitted. However, fourteen respondents wrote in a response to item 6A: I feel that the length and frequency of my service program were appropriate. Seventy-nine percent (11/14) of these responses for 6A were in agreement, whereas 7% (1/14) disagreed, and 14% (2/14) were neutral. Seventy-seven percent (17/22) of the respondents indicated that the clinician planned ahead and provided sufficient instruction and education to help the children retain their skills after the program ended, 9% (2/22) disagreed, and 14% (3/22) reported a neutral response. Fifty-five percent (12/22) of the respondents felt the program was well managed, involving other services when needed (i.e., teachers, dentist, physician), whereas 5% (1/22) disagreed, 18% (4/22) were neutral, and 23% (5/22) responded with not applicable (percentages equal 101 due to rounding procedure). From the answers that were written in by the respondents, it appears that the modal response for survey items 6A and 6B is strongly agree. Survey item 6C had three modal responses: strongly agree, agree, and not applicable.

Survey items 1, 3, 4, 5, and 6 related to the second question this study sought to answer; what are previous clients' and parents of previous child clients' attitudes regarding the clinical atmosphere and staff? Eighty-three percent (287/344) of the total responses for items 1, 3, 4, 5, and 6 were positive, whereas 3% (10/344) were negative, 11% (37/344) were neutral, and 3% (10/344) responded with not applicable. The positive results for all items relating to the second research question suggests that parents of previous child clients (those who returned their survey), were satisfied with the clinical atmosphere and staff at PSU.

Discussion

To assist in objectifying the results obtained in this retrospective qualitative research project, it is imperative to discuss all of the subject response patterns and not focus only on the negative feedback. This provides a platform to discuss the possibility for false positive response patterns which may skew the frequency results.

The first variable that should be addressed is the response rate. When performing any type of research, it is important to maximize the sample in order to increase the statistical power of the recorded results (Pannbacker & Middleton, 1994). Even though there are advantages for using a questionnaire format when gathering research data (e.g., standardization of questions and anonymity), one must also keep in mind the disadvantage: nonresponse bias. Nonresponse bias is regarded as a low response rate which in effect may provide a biased representation of the target population (Pannbacker & Middleton, 1994). Babbie (as cited in Pannbacker & Middleton, 1994) indicated that in order to maximize statistical power when using a questionnaire format, a response rate of 50% is considered adequate, a response rate of at least 60% is good, and a response rate of 70% or more is very good. As was previously mentioned in the results section, there was a 22.5% questionnaire return rate for the adult subjects and a 46% return rate for the parent subjects. Using the Babbie criteria (as cited in Pannbacker & Middleton, 1994), both subject group return rates were not judged to be adequate. This poor response ratio was also noted on two previous studies conducted on parent subjects who had children participating in the

Portland State University Articulation and Language Clinic. One study had a 40% response rate (Murphy, 1996) while the other study had a response rate of only 13% (Anderson, 1996).

Of the adult subjects who returned their questionnaires, 79% of their responses were positive, whereas 3% were negative, 14% were neutral, 4% were not applicable (Appendix D). Of the parent questionnaires that were returned, 84% of their answers were positive, whereas 3% were negative, 11% were neutral, 2% were not applicable (Appendix E).

From a review of these figures, one could conclude that adults who attended the PSU Stuttering clinic and parents who had children who participated in the PSU Stuttering clinic believe that they or their children benefited and that they have a positive attitude about the clinical atmosphere and staff. It is not this author's intention to negate the success of PSU's Speech and Hearing Program. However, a portion of these positive responses could also be explained as being "false positives"; a term that describes a response that should have been marked as a negative response, but instead, the respondent consciously or unconsciously marked a positive or neutral response (Martin, 1986).

One reason a respondent might have provided conscious false positive responses on the PSU survey is due to what is referred to as the "halo effect." The halo effect can exist within consumer satisfaction survey results due to the consumer's perception being positively influenced by some inherent variable (Ebel & Frisbie, 1986). For example, if consumers receive a product or service at a reduced cost, they will be less inclined to criticize the product or service as compared to if they were required to pay the market value. The PSU Speech and Hearing program provides services to many clients while the billing schedule is adjusted to each consumer's ability to pay. A university speech and hearing program generally provides diagnostic and treatment services for a reduced price, compared to that of private institutions. The halo effect can also transcend economics. For example, if clients liked their clinician, poor performance or clinical conditions may be overlooked. With the possibility of the halo effect influencing the results of qualitative data, the positive response ratio obtained for both sets of subjects, in this research project, should be viewed in a guarded fashion. It should also be noted that retrospective data may also be skewed due to the passage of time. Individuals who have had a less than positive experience may have either forgotten the details of their experience or their level of frustration may have dissipated over time. If the PSU Speech and Hearing Program personnel wanted to objectify their qualitative results, by ruling out the halo effect, they could compare their positive response ratio with that of data collected from private speech and hearing programs. Also, to reduce the influence of time on future questionnaire results, it is suggested that data be collected in a longitudinal fashion.

Another possible explanation of the high positive response ratio is the actual design and presentation of the questionnaire. As outlined in the literature review, individuals tend to favor positive responses over negative responses. In order to minimize response biases on a Likert scale, it is suggested that answer categories with "positive overtones" should not be placed in the first position (Sheatsley, 1983). Respondents should be forced to review answer categories from least positive to most positive. This forces the respondent to read each response before making an impulsive decision (Sudman & Bradburn, 1982). It can be noted that the ASHA Consumer Satisfaction Measure does not provide the suggested sequence for its answer categories (Appendix A).

When developing a survey instrument, it has been suggested by Shewan (as cited in Pannbacker & Middleton, 1994) that a pilot study be first completed to identify any potential problems with the survey instrument or project methodology. Due to ASHA developing and endorsing this measurement tool, it was assumed by this investigator that the instrument had been developed to account for the potential biases that have been discussed in the literature. A discussion with Mr. Charlie Diggs, the Director of Consumer Affairs of the ASHA Consumer Division (personal communication, 10/24/96) controverts this assumption. Mr. Diggs outlined the development of the current Consumer Satisfaction Measure (CSM) during his phone conversation. He stated that a committee was formed to develop a survey instrument to obtain quality assurance feedback. He indicated that an "expert panel" developed a draft of what would become the CSM. The expert panel then submitted the draft to a professional review board. The professional review board critiques submitted documents and endorses the project or makes recommendations for change. If changes are recommended, the expert panel considers the recommendations and makes the appropriate adjustments to the document. Mr. Diggs indicated that, after this process was completed, the survey instrument was not piloted because the expert panel believed the instrument had adequate "external reliability" (i.e., the document was endorsed by a professional review board) and "face validity" (i.e., the information gathered was logical, accurate, and appropriate enough to answer a specific question).

Even though the data suggest that both the adult and parent subjects scored a majority of their survey questions with positive answers, it is still important to review the areas of dissatisfaction. This insight could provide PSU's Stuttering Program with feedback to assist in improving treatment and service. For the adult subjects, the areas of dissatisfaction for both research questions were noted in sub-items 2A, 2B, 5C, and 6A (Table 5). Of these four sub-items, only 2A received more than one negative response (20% or greater). It should be again noted that only 43% (3/7) of the respondents agreed that they were better because of the services received. This is notably lower than the 78% (7/9) of the respondents who believed they benefited from services received. This difference between positive response ratios may be attributed to the clients' (respondents) post-treatment stuttering behaviors and how well their treatment strategies carried over time and to different situations. Craig and Calver (1991) also found this variation in their research on perceptions of people who stutter. Their study revealed that even though their research clients believed they obtained an acceptable level of stuttering, they were not always satisfied with the final outcome.

Table 5

Negative and Neutral Responses for Adult Subjects

Item #	Survey Question	Negative Responses	Neutral Responses
1A	My appointments were scheduled in a reasonable period of time.	0	1
1B	I was seen on time for my scheduled appointments.	0	0
2A	I am better because I received these services.	2	2
2B	I feel I benefitted from speech-language pathology services.	1	0
3A	The support staff who served me were courteous and pleasant.	0	0
3B	The clinician who served me was courteous and pleasant.	0	0
3C	Staff considered my special needs.	0	1
3D	Staff included my family or other persons important to me in the services provided.	0	1
4A	My clinician was prepared and organized.	0	0
4B	The procedures were explained to me so that I could understand.	0	0
4C	My clinician was experienced and knowledgeable.	0	0
5A	Health and safety precautions were taken when serving me.	0	2
5B	The environment was clean and pleasant.	0	3
5C	The environment was quiet and free of distractions	1	2
5D	The building and treatment areas were easy to get to.	0	3
6A	I feel that the length and frequency of my service program was appropriate.	1	2
6B	My clinician planned ahead and provided sufficient instruction and education to help me retain my skills after my program ended.	1	4
6C	I feel that my program was well managed, involving other services when needed.	0	1
7A	Overall, the program services were satisfactory.	0	0
7B	I would seek your services again if needed.	0	2
7C	I would recommend your services to others.	0	1

Table 6

Negative and Neutral Responses for Parent Subjects

Item #	Survey Question	Negative Responses	Neutral Responses
1A	My appointments were scheduled in a reasonable period of time.	0	0
1B	I was seen on time for my scheduled appointments.	0	0
2A	I am better because I received these services.	1	4
2B	I feel I benefitted from speech-language pathology services.	0	3
3A	The support staff who served me were courteous and pleasant.	0	2
3B	The clinician who served me was courteous and pleasant.	1	1
3C	Staff considered my special needs.	1	3
3D	Staff included my family or other persons important to me in the services provided.	0	3
4A	My clinician was prepared and organized.	0	1
4B	The procedures were explained to me so that I could understand.	0	2
4C	My clinician was experienced and knowledgeable.	0	2
5A	Health and safety precautions were taken when serving me.	0	3
5B	The environment was clean and pleasant.	1	3
5C	The environment was quiet and free of distractions	1	3
5D	The building and treatment areas were easy to get to.	2	5
6A	I feel that the length and frequency of my service program was appropriate.	0	2
6B	My clinician planned ahead and provided sufficient instruction and education to help me retain my skills after my program ended.	2	3
6C	I feel that my program was well managed, involving other services when needed.	1	4
7A	Overall, the program services were satisfactory.	1	2
7B	I would seek your services again if needed.	0	2
7C	I would recommend your services to others.	1	1

They discovered that even though their clients' level of performance was better than before treatment, many of the clients continued to experience moments of stuttering which led to their dissatisfaction with the outcome of treatment.

The mode for severity for the adult subjects was mild to moderate-severe. This would suggest that, upon discharge from the PSU clinic, these clients were still experiencing moments of stuttered speech. This may explain why a high percentage of respondents disagreed or were neutral with their responses to question 2A. However, the difference between the two sub-items may also be due to how an individual interprets being better from treatment and having benefited from treatment. Persons who stutter may not feel that they are better after receiving treatment if they continue to experience moments of stuttering. This may be the case even for persons who have progressed from a severity level of severe to moderate. It should be noted that even though these individuals believed they are not better after treatment, they may believe they benefited from the clinical experience. One example of how an individual could benefit from clinical services is the educational training received as a part of treatment. This may include information regarding the theories of stuttering etiology, treatment theories that exist, research statistics regarding the disorder, and support groups and resources that exist at the local, state, regional, and national levels. This educational aspect of treatment can provide individuals with insight about stuttering that may facilitate a reduced feeling of isolation and helplessness.

For the parent subjects, the areas of dissatisfaction for both research questions were noted in sub-items 2A, 3B, 3C, 7A, 7B, 7C, 5B, 5C, 5D, 6A, 6B, 6C (Table 6). Of these 10 sub-items, only sub-item 5D, had more than one negative response (2/22 or 9%). Even though the percentage of negative responses are low, the results regarding performance outcome and program service may be explained again by how a subject interprets the difference between being better after treatment and having benefited from treatment. For example, parents whose child had a reduction in stuttering severity still may not be content with the outcome of treatment, due to their child continuing to stutter. With this in mind, the parent may not perceive the clinical services to be satisfactory, may not recommend these services to others, and may not believe that the clinician provided sufficient instruction, or provided a multidisciplinary approach to treatment.

In regards to the negative comments concerning physical structure and ease of accessibility, it should be noted that the Portland State Speech and Hearing Program is a part of an urban university setting. The clinical environment is located in a basement section of PSU and adjacent to other university academic programs. This lack of physical autonomy may lead to an influence of additional noise and clutter inherent to a mobile university population. Accessibility may also be perceived to be difficult because the PSU campus is located in the metropolis of Portland, Oregon. Maneuverability through the city and parking can present obstacles for those unfamiliar with the area or experience.

The area of neutrality also merits discussion because a neutral response could be interpreted or perceived differently, depending upon the reader. By reviewing areas of neutrality, information regarding the perception of intervention received and the clinical atmosphere and staff can be further explored. For the adult subjects, 14% of the grand total responses were neutral . The sub-items that received neutral responses were 1A, 2A, 3C, 3D, 5A, 5B, 5C, 5D, 6A, 6B, 6C, 7B, and 7C (Table 3). Of these 13 sub-items, only 2A, 5A, 5B, 5C, 5D, 6A, 6B, and 7B had two or more (20% or greater of the total responses) neutral responses. These areas of concern targeted the client's benefit from service, environmental atmosphere, efficiency and comprehensivness of services, and general comments.

For the parent subjects, 10% of the total responses were neutral. The sub-items that received neutral responses included 2A, 2B, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 5A, 5B, 5C, 5D, 6A, 6B, 6C, 7A, 7B, and 7C (Table 4). Of these 19 sub-items, only 2A, 5D, and 6C had four or more (20% or greater of total responses) neutral responses. These areas of concern targeted the client's benefit from service, environmental atmosphere, efficiency and comprehensivness of services, and general comments.

It is difficult to predict a subject's perception about a particular area of service when a neutral response has been chosen. A neutral response cannot be interpreted as being either positive or negative, but just indifferent or undecided. However, to choose a neutral response is consciously not to choose a positive response. By eliminating the potential for a positive response to be chosen, there is now an increased chance that the chosen response will be negative. With this in mind, the area of concern that must now be recognized, when working with neutrality, is the possibility that a neutral answer was used to avoid documenting a negative response. This possibility should be considered due to the halo effect. Because many of PSU's speech and hearing clients receive clinical services at a reduced market value, it is possible that a subject may consciously or unconsciously not provide negative feedback due to receiving clinical and economic assistance.

Comparison with ASHA's Results

When comparing the current survey results with that of the ASHA survey results, there are several sub-items where a noted discrepancy (20% or greater) is recorded in regards to positive responses. For the adult subjects, Table 5 reflects that sub-item 2A had a 43% positive response ratio as compared to the ASHA results of 84%. Sub-item 7B reported a 78% positive response ratio as compared to the ASHA results of 98%. Sub-item 3C reported a 78% positive response ratio as compared to the ASHA results of 96%. Sub-item 3D reported a 56% positive response ratio as compared to the ASHA results of 93%. Sub-item 5A reported a 56% positive response ratio as compared to the ASHA results of 92%. Sub-item 5B reported a 67% positive response ratio as compared to ASHA results of 97%. Sub-item 5C also reported a 67% positive response ratio as compared to the ASHA results of 95%. Sub-item 5D reported a 67% positive response ratio as compared to the ASHA results of 79%. Sub-item 6B reported a 44% positive response ratio as compared to the ASHA results of 88%. Sub-item 6C also reported a 44% positive response ratio as compared to the ASHA results of 91% positive.

When comparing the parent survey results to the ASHA survey results there were also a few sub-items where a noted discrepancy is recorded in regards to positive responses (Table 6). Sub-item 3C reported a 68% positive response ratio as compared to the ASHA survey results of 96%. Sub-item 6A reported a 79% positive response ratio as compared to the ASHA survey results of 96%. Sub-item 6C reported a 55% positive response ration as compared to the ASHA survey results of 91%.

The percentage discrepancy between the current study and the ASHA study could be explained in regards to ASHA's survey sample. Those results included only two university programs; the remainder of the data came from hospitals or rehabilitation centers (ASHA, 1995). The areas where the PSU results scored below 50% (Table 5) could be explained due to clinical services being provided within a university setting and by graduate clinicians. The survey questions that reflected these low percentages targeted the length and frequency of service, the clinician's ability to plan and provide sufficient instruction, and the overall management of the program. Many times clinical services are interrupted due to clinician training and scheduled university breaks. This disruption in the flow of service could have generated a low positive response ratio for this question. The feedback regarding the clinician's abilities should be viewed in an appropriate context. The PSU program is an education institution to teach graduate clinicians how to plan and provide treatment. It should not be unexpected when there are comments critiquing the level of knowledge and proficiency of the program's graduate clinicians. The noted perception that the management of the PSU program is below expectation could also be explained by client's failing to take into account that the PSU program is not a private institution, but rather an academic and preparation facility for future speech-language pathologists. Had the ASHA study only surveyed university programs, the ASHA-reported percentages might have been different.

The results of the current study are generally quite positive. These results, as measured from the Likert scale line items on the questionnaire, were also corroborated with written comments on the surveys (Appendix G). However, both subject pools also expressed certain concerns on their surveys. The adult subjects appeared concerned with scheduling issues, whereas the parent subjects appeared to document concerns regarding the communication between the PSU supervisors and prospective clients and the quality of equipment used in the clinical setting. Though the majority of written feedback by both subject groups was positive, the critiques provided were few and aperiodic. This response pattern is most likely indicative of the small sample size obtained for this project.

Though the PSU Speech and Hearing Clinic has collected data each term regarding client satisfaction, these data have not been collected consistently over the last 5 years nor collected post-treatment to assist in qualifying and quantifying the transfer and generalization of a client's treatment goals. By accumulating these data in a longitudinal fashion versus relying on retrospective information, the PSU Speech and Hearing Program can better measure the efficacy of their program and service delivery model. This documentation is not only important for intraspective review, but also as a measure of accountability for clients, parents of clients, third-party payors, the university, and ASHA.

CHAPTER V

SUMMARY AND IMPLICATIONS

Summary

As consumers become more knowledgeable and more demanding of accountability, health care workers, which includes speech-language pathologists, are being required to justify the effectiveness of their work by documenting the results of their treatment programs. There are different ways to measure treatment outcomes. Outcomes may be measured qualitatively and/or quantitatively. Qualitative or subjective outcomes are difficult to define and measure, and few studies of this type have been reported in the literature. Since clinical outcome is influenced to some extent by client satisfaction (Williams, 1994) and because few studies have been reported in the literature regarding client satisfaction, this area was investigated in this research project.

The focus of this project was to ascertain whether previous clients believed they benefited from stuttering intervention services received at the PSU Speech-Language and Hearing Clinic. The subjects surveyed were previous adults and parents of previous child clients. The parents responded as if they were the children who had received the service. The project also examined the subjects' attitudes regarding the clinical atmosphere and staff.

Client satisfaction is difficult to measure because of influences that may alter perception. These influences may be the attitudes and motivation of a client or the perceptions and attitudes of a client's significant other (Engel, Brandriet, Erickson, Gronhovd, & Gunderson, 1966). Even when clients benefit from treatment (i.e., achieving acceptable speech), they do not necessarily believe they are better and are not always satisfied with the outcome (Craig & Calver, 1991).

The ASHA Speech-Language Pathology and/or Audiology Services Consumer Satisfaction Measure was used in this study because it targeted a broad range of professional questions and because it contained statements relating to the research questions posed in this current study. Answers to the research questions were derived from responses to the survey that was mailed to 40 adults who previously participated in the PSU's Speech and Hearing Stuttering Clinic and 50 parents who had children who also previously participated in the PSU clinic.

For the adult subjects, 22.5% (9/40) of the questionnaires were returned and used in the final tabulation. Eighty-one percent of the adult responses regarding whether they felt they benefited from services obtained at the PSU Speech and Hearing Clinic were positive. This suggests that these subjects were satisfied with the services received. Seventy-seven percent of the responses regarding the adult subject's attitudes toward the clinical atmosphere and staff, were also positive.

For the parent subjects, 46% (23/50) of the questionnaires were returned and 22 were used in the final tabulation. Eighty-five percent of the parental responses regarding whether parents felt that their child benefited from services obtained at the PSU Speech and Hearing Clinic were positive. This suggests that these subjects were satisfied with the services received. Eighty-three percent of the responses regarding parents' attitudes toward the clinical atmosphere and staff were also positive.

In general, both adult and parent subject responses were quite positive. In addition to the responses to the seven survey questions, a number of adult and parent subjects also included written comments (Appendix G). These comments generally expressed favorable views regarding the subjects' experience with the PSU clinic. However, there were also a few comments made by both subject groups that addressed areas of concern. The areas of concern seemed to target scheduling, communication, and facility equipment.

Implications

Research Implications

Descriptive research often generates more questions than answers (Polson, 1980). As was previously discussed, efficacy research should be a compilation of both qualitative and quantitative data in order to critique a clinical program or procedure in an objective manner. Since descriptive research is designed to provide the foundation for empirical research, qualitative data, that includes client perceptions, should continue to be collected. However, to avoid collecting unreliable data, both qualitative and quantitative posttreatment information should be obtained in a longitudinal fashion. This should begin at the time a client exits from clinic and continue collecting follow-up data at the 1-year, 3-year, and 5-year post-treatment periods. This type of extensive posttreatment follow-up could provide the PSU Speech and Hearing Program incisive data regarding the transfer and generalization of a client's treatment objectives, the long-term success of treatment theories and practice, and how a client's perception of treatment has changed over the course of time.

If the PSU Speech and Hearing Program continues to use the CSM to obtain perceptual data, it is recommended that the response line irregularities are addressed and the Likert scale answer categories are re-sequenced. Sheatsley (1983) indicated that to reduce response biases, answer categories should be sequenced from most negative to most positive. This forces the respondent to read each response before making a decision. By using a questionnaire with this format, it could be argued that the qualitative data recorded is more objective and reliable. A potential research project could conduct a study using a CSM with response categories sequenced from positive to negative and compare the data to results obtained from using a CSM with response categories sequenced from negative to positive. This type of study could help determine if instrument design impacts results. To attempt to increase the validity of a survey instrument like the CSM, the redesign of the questionnaire and individual questions should be attempted. By including a number of like-questions that have positive and negative overtones, a researcher could interpret whether or not responses had high internal validity. An example would be two questions that essentially ask for the same information, but one question is posed in the negative and the other posed in the positive (e.g., the environment was loud with distractions and the environment was quiet and free from distractions). By having two like-questions posed in this fashion, it hopefully forces the respondent to answer with different responses. This type of question manipulation on surveys will assist researchers in determining if results are influenced by the halo effect or if response validity is fortified.

When designing a questionnaire for consumers of speech-language pathology services, a researcher should also include questions regarding societal involvement and contributions. These questions should target a subject's involvement in social events, education, and employment. These areas under investigation should depict whether a person's socialization and vocation have been impacted by some communication impairment. By obtaining this type of information, research data can be used to reflect how treatment not only impacts individual clients, but how contributions to society may have also been influenced (e.g., productive social relationships within the community, being an educated citizen within a community, and economic contributions to local and federal agencies).

To assist in objectifying perceptual results and documenting its reliability, a replication of this study, with larger samples, is recommended in the five main Speech and Hearing domains (i.e., language, articulation, voice, fluency, and aural rehabilitation). For the PSU program to attempt to rule out the halo effect, future research results should be compared to results obtained from private clinical settings, targeting the same populations, and using the same research methodology. Research could also be conducted to determine if the number of clinical sessions per week significantly impacts treatment outcome or how the severity of the disability impacts the longevity of treatment and the client's perception of the experience.

Clinical Implications

According to Hegde, Polit, and Hungler, "evaluation research involves the collection and analysis of information related to the effects of a program, policy, or procedure" (as cited in Pannbacker & Middleton, 1994, p. 84). Four types of evaluation research have been outlined in the literature: process or implementation evaluation, outcome and impact evaluation, cost-benefit analysis, and comprehensive evaluation. The documentation and analysis of this type of data assists in determining program efficacy and assures compliance with the Council of Academic Accreditation which is administered through ASHA.

The focus of this current study targets process or implementation evaluation. Typically, this type of research involves intensive examination of a program and often examines both qualitative and quantitative data. These data are commonly gathered through interviews, observation, and analysis of records related to the program. Generally, process or implementation evaluation is used to help improve new or ongoing programs (Pannbacker & Middleton, 1994).

One area of concern noted in this study was that many previous stuttering subjects did not believe they were better or benefited from intervention. A program might interpret this information and determine that clinicians need to spend more time providing education and counseling to their clients regarding the challenges that exist when speaking in contexts away from the clinical environment. It may also suggest the need for an established follow-up treatment program to assist with long-term fluency maintenance.

Environmental quality was also a concern that was noted on the survey. Specific areas were noted in cleanliness, less than quiet and distractible environment, and poor quality sound equipment. Because the PSU clinic is housed within a university setting, there are structural and environmental aspects which are transfixed due to budgetary constraints. However, conditions, such as cleanliness and working equipment, are areas where the PSU program have internal control. By establishing the precedent of providing a clean clinical environment, equipment that functions appropriately, and clinicians and supervisors who provide quality customer service, the PSU clinic will not only present as a professional organization to the public, but an example of professionalism to their clinicians in training. It is hoped that the PSU program continues to monitor and upgrade these extrinsic and controllable areas of service. With continuous feedback obtained from exiting clients, this liability should easily be avoidable.

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APPENDIX A

ASHA CONSUMER SATISFACTION MEASURE

Speech-Language Pathology and/or Audiology Services

Consumer Satisfaction Measure

After answering all items, detach here and return
READ each item carefully and CIRCLE the one answer that is best for you.

SA = Strongly Agree
A = Agree
N = Neutral
D = Disagree
SD = Strongly Disagree
NA = Not Applicable

1. It is important that we see you in a timely manner.						
A. My appointment(s) was scheduled in a reasonable period of time.	SA	A	N	D	SD	NA
B. I was seen on time for my scheduled appointment(s).	SA	A	N	D	SD	NA
2. It is important that you benefit from Speech-Language Pathology and/or Audiology Service(s).	SA	A	N	D	SD	NA
A. I am better because I received these service(s).	SA	A	N	D	SD	NA
B. I feel I benefited from speech-language pathology and/or audiology service(s).	SA	A	N	D	SD	NA
3. You are important to us; we are here to work with you.						
A. The support staff (e.g., secretary, transporter, receptionist, assistant) who served me were courteous and pleasant.	SA	A	N	D	SD	NA
B. The clinician who served me was courteous and pleasant.	SA	A	N	D	SD	NA
C. Staff considered my special needs (age, culture, education, handicapping condition, eyesight, and hearing).	SA	A	N	D	SD	NA
D. Staff included my family or other persons important to me in the service(s) provided.	SA	A	N	D	SD	NA
4. Our Speech-Language Pathology and Audiology staff are highly trained and qualified to serve you.						
A. My clinician was prepared and organized.	SA	A	N	D	SD	NA
B. The procedure(s) was explained to me in a way that I could understand.	SA	A	N	D	SD	NA
C. My clinician was experienced and knowledgeable.	SA	A	N	D	SD	NA
5. It is important that our environment is secure, comfortable, attractive, distraction-free, and easy to reach.						
A. Health and safety precautions were taken when serving me.	SA	A	N	D	SD	NA
B. The environment was clean and pleasant.	SA	A	N	D	SD	NA
C. The environment was quiet and free of distractions.	SA	A	N	D	SD	NA
D. The building and treatment areas were easy to get to.	SA	A	N	D	SD	NA
6. It is important that we provide you with efficient and comprehensive services.						
A. I feel that the length and frequency of my service program were appropriate.						
B. My clinician planned ahead and provided sufficient instruction and education to help me retain my skills after my program ended.	SA	A	N	D	SD	NA
C. I feel that my program was well managed, involving other services when needed (i.e., teacher, dentist, physician).	SA	A	N	D	SD	NA
7. We respect and value your comments.						
A. Overall, the program services were satisfactory.	SA	A	N	D	SD	NA
B. I would seek your services again if needed.	SA	A	N	D	SD	NA
C. I would recommend your services to others.	SA	A	N	D	SD	NA

D. Check the services you received. ☐ Speech-Language Pathology ☐ Audiology

8. How many times were you seen? ☐ 1-3 times ☐ 4 or more times

Comments: ____

____

Thank you for your time.

CODE [ ] Please staple/seal the questionnaire so that the Center's address is on the outside and return it to us.

AMERICAN
SPEECH-LANGUAGE
HEARING
ASSOCIATION

Quality Improvement

APPENDIX B

INFORMED CONSENT FORM AND COVER LETTER FOR ADULT SUBJECTS

INFORMED CONSENT FORM

I, ______________________________, agree to take part in this research project on client perceptions of the effectiveness of clinical services at Portland State University's Fluency Clinic.

I understand that the study involves filling out a questionnaire concerning my feelings about the clinical services provided to me.

I understand that because of this study, I will be required to sped a maximum of 10 minutes to fill out the survey.

Joan McMahon has told me that the purpose of the study is to learn how former clients feel about the services provided by the Portland State University Fluency Clinic and to ask for my input on how to improve the services.

I may not receive any direct benefit from taking part in this study, but the study may help increase knowledge that may help others in the future.

Mary Gordon-Brannan has offered to answer any questions I have about the study and what I am expected to do. She has promised that all information I give will be kept confidential to the extent permitted by law, and that the responses of all people in the study will be kept confidential.

I understand that I do not have to take part in this study and that this will not affect any further relationship I or my family may have with the Portland State University Fluency Clinic.

I have read and understand the above information and agree to take part in this study.

______________________________ ______________________________

SIGNATURE DATE

Dear Former Client:

My name is Joan McMahon, Professor in the Speech and Hearing program at Portland State University. I am conducting a research project concerning perceptions of the effectiveness of services received by individuals who have participated in Portland State University's (PSU) Fluency Clinic. I am attempting to determine whether you believe you benefitted from the services received at PSU's clinic and what your overall attitudes are regarding the clinical atmosphere and staff. It is hoped that this study will lead to more specific measures of satisfaction and effectiveness and to the improvement of future clinical services at PSU.

I am sending a questionnaire to individuals and parent/guardian of children who received services for stuttering from PSU any time between January 1, 1987, and August 30, 1994. If you choose to participate in this study, you will need to complete the attached approval sheet and questionnaire. Please be assured that your name will not be used in reporting results.

If there are any questions or problems regarding any aspect of this study, please call Mary Gordon-Brannan at (503) 725-3143. Additionally, if you have any problems associated with your involvement in this study, please contact the secretary of the Office of Research and Sponsored projects, Portland State University, P. O. Box 751, Portland, OR 97207. They can be reached by telephone at (503) 725-3417.

Please complete the attached approval sheet and return it alone with your completed questionnaire in the self-addressed, stamped envelope provided. Only those questionnaires accompanied by the approval form will be used in this study. Thank you for your help.

Joan McMahon, M.S.
Associate Professor Emerita

……

☐ I am interested in participating in your study. ☐ I am not interested in your study.

Signature ______________________ Printed Name ______________________

Date ______________________ Street Address ______________________

Telephone Number ______________________ City/State/Zip ______________________

APPENDIX C

INFORMED CONSENT FORM AND COVER LETTER FOR PARENT SUBJECTS

INFORMED CONSENT FORM

I, ______________________________, agree to take part in this research project on client perceptions of the effectiveness of clinical services at Portland State University's Fluency Clinic.

I understand that the study involves filling out a questionnaire concerning my feelings about the clinical services provided to my child

I understand that because of this study, I will be required to sped a maximum of 10 minutes to fill out the survey.

Joan McMahon has told me that the purpose of the study is to learn how parents feel about the services provided by the Portland State University Fluency Clinic and to ask for my input on how to improve the services.

I may not receive any direct benefit from taking part in this study, but the study may help increase knowledge that may help others in the future.

Mary Gordon-Brannan has offered to answer any questions I have about the study and what I am expected to do. She has promised that all information I give will be kept confidential to the extent permitted by law, and that the responses of all people in the study will be kept confidential.

I understand that I do not have to take part in this study and that this will not affect any further relationship I or my family may have with the Portland State University Fluency Clinic.

I have read and understand the above information and agree to take part in this study.

______________________________ ______________________________

SIGNATURE DATE

Dear Former Client:

My name is Joan McMahon, Professor in the Speech and Hearing program at Portland State University. I am conducting a research project concerning parent perceptions of the effectiveness of services received by their children at Portland State University's (PSU) Fluency Clinic. I am attempting to determine whether parents believe their children benefitted from the services received at PSU's clinic and what parents' overall attitudes are regarding the clinical atmosphere and staff. It is hoped that this study will lead to more specific measures of satisfaction and effectiveness and to the improvement of future clinical services at PSU.

I am sending a questionnaire to the parent/guardian of children who received services for stuttering from PSU any time between January 1, 1987, and August 30, 1994. If you choose to participate in this study, you will need to complete the attached approval sheet and questionnaire. Please fill out the questionnaire as if you were the person receiving the service. Neither your name nor your child's name will be used in reporting results.

If there are any questions or problems regarding any aspect of this study, please call Mary Gordon-Brannan at (503) 725-3143. Additionally, if you have any problems associated with your involvement in this study, please contact the secretary of the Office of Research and Sponsored projects, Portland State University, P. O. Box 751, Portland, OR 97207. They can be reached by telephone at (503) 725-3417.

Please complete the attached approval sheet and return it alone with your completed questionnaire in the self-addressed, stamped envelope provided. Only those questionnaires accompanied by the approval form will be used in this study. Thank you for your help.

Joan McMahon, M.S.
Associate Professor Emerita

……

☐ I am interested in participating in your study. ☐ I am not interested in your study.

Signature	Child's Name
Date	Street Address
Telephone Number	City/State/Zip

APPENDIX D

TOTAL RESPONSES FOR ADULT SUBJECTS

APPENDIX D

TOTAL RESPONSES FOR ADULT SUBJECTS

		SA	A	N	D	SD	NA	Total Responses
SURVEY ITEMS PERTAINING TO RESEARCH QUESTION 1: Adult Subjects								
2.	It is important that you benefit from Speech-Language Pathology.							
A.	I am better because I received these services.	2	1	2	2	0	0	7
B.	I feel I benefited from speech-language pathology and/or audiology services.	4	3	0	1	0	0	8
7.	We respect and value your comments.							
A.	Overall, the program services were satisfactory.	4	5	0	0	0	0	9
B.	I would seek your services again if needed.	4	3	2	0	0	0	9
C.	I would recommend your services to others.	4	4	1	0	0	0	9
TOTALS FOR ITEMS PERTAINING TO RESEARCH QUESTION 1:		18	16	5	3	0	0	42
Percentage of Total Responses for Items Pertaining to Research Question 1:		43%	38%	12%	7%	0%		

TOTAL RESPONSES FOR ADULT SUBJECTS

	SURVEY ITEMS PERTAINING TO RESEARCH QUESTION 2: Adult Subjects	SA	A	N	D	SD	NA	Total Responses
1.	It is important that we see you in a timely manner.							
A.	My apppointments were scheduled in a reasonable period of time.	5	3	1	0	0	0	9
B.	I was seen on time for my scheduled appointments.	4	4	0	0	0	0	8
3.	You are important to us; we are here to work with you.							
A.	The support staff (e.g., secretary, transporter, receptionist, assistant) who served me were courteous and pleasant.	3	6	0	0	0	0	9
B.	The clinician who served me was courteous was courteous and pleasant.	6	3	0	0	0	0	9
C.	Staff considered my special needs (age, culture, education, handicapping conditions, eyesight, and hearing).	7	0	1	0	0	1	9
D.	Staff included my family or other persons important to me in the services provided.	2	3	1	0	0	3	9
4.	Our Speech-Language Pathology and Audiology staff are highly trained and qualified to serve you.							
A.	My clinician was prepared and organized.	4	5	0	0	0	0	9
B.	The procedures were explanined to me in a way that I could understand.	5	4	0	0	0	0	9

		SA	A	N	D	SD	NA	Total Responses
C.	My clinician was experienced and knowledgeable.	4	5	0	0	0	0	9
5.	It is important that our environment is secure, comfortable, attractive, distraction-free, and easy to get to.							
A.	Health and safety precautions were taken when serving me.	2	3	2	0	0	2	9
B.	The environment was clean and pleasant.	1	5	3	0	0	0	9
C.	The environment was quiet and free of distractions.	3	3	2	1	0	0	9
D.	The building and treatment areas were easy to get to.	2	4	3	0	0	0	9
6.	It is imortant that we provide you with efficient and comprehensive services.							
A.	I feel that the length and frequency of my service program was appropriate.	0	2	2	1	0	0	5
B.	My clinician planned ahead and provided sufficient instruction and education to help me retain my skills after my program ended.	2	2	4	1	0	0	9
C.	I feel that my program was well managed, involving other services when needed (i.e., teachers, dentist, physician).	1	3	1	0	0	2	7

	SA	A	N	D	SD	NA	Total Responses
TOTALS FOR ITEMS PERTAINING TO RESEARCH QUESTION 2:	51	55	20	3	0	8	137
Percentage of Total Response for Items Pertaining to Research Question 2.	37%	40%	15%	2%	0%	6%	
GRAND TOTALS	69	71	25	6	0	8	179
Percentage of Total Response	39%	40%	14%	3%	0%	4%	

APPENDIX E

TOTAL RESPONSES FOR PARENT SUBJECTS

APPENDIX E

TOTAL RESPONSES FOR PARENT SUBJECTS

SURVEY ITEMS PERTAINING TO RESEARCH QUESTION 1: Parent Subjects		SA	A	N	D	SD	NA	Total Responses
2.	It is important that you benefit from Speech-Language Pathology.							
A.	I am better because I received these services.	7	9	4	1	0	0	21
B.	I feel I benefited from speech-language pathology and/or audiology services.	11	7	3	0	0	0	21
7.	We respect and value your comments.							
A.	Overall, the program services were satisfactory.	10	9	2	1	0	0	22
B.	I would seek your services again if needed.	15	3	2	0	1	0	21
C.	I would recommend your services to others.	15	5	1	1	0	0	22
TOTALS FOR ITEMS PERTAINING TO RESEARCH QUESTION 1:		58	33	12	3	1	0	107
Percentage of Total Responses for Items Pertaining to Research Question 1:		54%	31%	11%	3%	1%		

TOTAL RESPONSES FOR PARENT SUBJECTS

	SURVEY ITEMS PERTAINING TO RESEARCH QUESTION 2: Parent Subjects	SA	A	N	D	SD	NA	TOTAL RESPONSES
1.	It is important that we see you in a timely manner.							
A.	My apppointments were scheduled in a reasonable period of time.	16	5	0	0	0	1	22
B.	I was seen on time for my scheduled appointments.	18	4	0	0	0	0	22
3.	You are important to us; we are here to work with you.							
A.	The support staff (e.g., secretary, transporter, receptionist, assistant) who served me were courteous and pleasant.	12	8	2	0	0	0	22
B.	The clinician who served me was courteous was courteous and pleasant.	17	3	1	1	0	0	22
C.	Staff considered my special needs (age, culture, education, handicapping conditions, eyesight, and hearing).	9	6	3	1	0	3	22
D.	Staff included my family or other persons important to me in the services provided.	11	8	3	0	0	0	22
4.	Our Speech-Language Pathology and Audiology staff are highly trained and qualified to serve you.							
A.	My clinician was prepared and organized.	15	6	1	0	0	0	22
B.	The procedures were explanined to me in a way that I could understand.	14	6	2	0	0	0	22

		SA	A	N	D	SD	NA	Total Responses
C.	My clinician was experienced and knowledgeable.	11	9	2	0	0	0	22
5.	It is important that our environment is secure, comfortable, attractive, distraction-free, and easy to get to.							
A.	Health and safety precautions were taken when serving me.	5	13	3	0	0	1	22
B.	The environment was clean and pleasant.	6	12	3	1	0	0	22
C.	The environment was quiet and free of distractions.	6	12	3	1	0	0	22
D.	The building and treatment areas were easy to get to.	5	10	5	2	0	0	22
6.	It is imortant that we provide you with efficient and comprehensive services.							
A.	I feel that the length and frequency of my service program was appropriate.	7	4	2	0	1	0	14
B.	My clinician planned ahead and provided sufficient instruction and education to help me retain my skills after my program ended.	9	8	3	2	0	0	22
C.	I feel that my program was well managed, involving other services when needed (i.e., teachers, dentist, physician).	6	6	4	1	0	5	22

	SA	A	N	D	SD	NA	Total Responses
TOTALS FOR ITEMS PERTAINING TO RESEARCH QUESTION 2:	167	120	37	9	1	10	344
Percentage of Total Response for Items Pertaining to Research Question 2.	49%	35%	11%	3%	0%	3%	
GRAND TOTALS	225	153	49	12	2	10	451
Percentage of Total Response	50%	34%	11%	3%	0%	2%	

Note: The actual percentage for the SD category, under Research Question 2, was .4 %.

APPENDIX F

DEMOGRAPHIC INFORMATION

DEMOGRAPHIC INFORMATION

ADULT SUBJECTS

Demographic data for adult subjects receiving fluence intervention services (surveys returned):

Average age of adult subject at exit from clinic: 31 years, 9 months
Average of date last seen in clinic: 1992
Average number of sessions attended: 29 sessions

Range of ages at exit from clinic: 17 years to 40 years
Range of dates last seen in clinic: March 1989 to March 1995
Range of number of sessions attended: 7 sessions to 73 sessions
Range of stuttering severity: Mild to Moderate-Severe

Mode of subject age: No mode available
Mode of data last seen in clinic: 1994 (with three responses)
Mode of number of sessions attended: No mode available
Mode of stuttering severity: Mild to Moderate-Severe (each with three responses)

◆ ◆ ◆

Demographic data for adult subjects receiving fluence intervention services (surveys not returned):

Average age of adult subject at exit from clinic: 31 years, 9 months
Average of date last seen in clinic: 1991
Average number of sessions attended: 34 sessions

Range of ages at exit from clinic: 16 years to 80 years
Range of dates last seen in clinic: March 1988 to March 1995
Range of number of sessions attended: 6 sessions to 119 sessions
Range of stuttering severity: Mild to Severe

Mode of subject age: 31 years (with four responses)
Mode of data last seen in clinic: 1988 (with five responses)
Mode of number of sessions attended: 13, 18, and 26 sessions (each with two responses)
Mode of stuttering severity: Mild (with twelve responses)

NOTE: ①Treatment sessions averaged 50 minutes.

DEMOGRAPHIC INFORMATION

PARENT SUBJECTS

Demographic data for adult subjects receiving fluence intervention services (surveys returned):

Average age of parent's child receiving intervention at exit from clinic: 8 years, 3 months
Average of date last seen in clinic: 1993
Average number of sessions attended: 32 sessions

Range of ages at exit from clinic: 3 years, 5 months to 14 years, 10 months
Range of dates last seen in clinic: March 1990 to March 1995
Range of number of sessions attended: 12 sessions to 62 sessions
Range of stuttering severity: Mild to Severe

Mode of subject age: 8 years, 3 months (with two responses)
Mode of data last seen in clinic: 1995 (with five responses)
Mode of number of sessions attended: 12 and 27 sessions (each with two responses)
Mode of stuttering severity: Moderate (with ten responses)

❖ ❖ ❖

Demographic data for adult subjects receiving fluence intervention services (surveys not returned):

Average age of parent's child receiving intervention at exit from clinic: 9 years, 5 months
Average of date last seen in clinic: 1991
Average number of sessions attended: 28 sessions

Range of ages at exit from clinic: 3 years, 5 months to 18 years
Range of dates last seen in clinic: October 1987 to March 1995
Range of number of sessions attended: 11 sessions to 56 sessions
Range of stuttering severity: Mild to Severe

Mode of subject age: 8 years, 8 months (with two responses)
Mode of data last seen in clinic: 1988 (with five responses)
Mode of number of sessions attended: 13, 18, and 26 sessions (each with two responses)
Mode of stuttering severity: Mild (with twelve responses)

NOTES: ①Treatment sessions averaged 50 minutes.
②Figures do not include surveys that could not be delivered.

APPENDIX G

RESPONDENT COMMENTS

RESPONDENT COMMENTS

Adult Subjects

Attitudes Regarding Benefits

- My therapy was catered to my employment and social situations. It is insightful and considerate that these areas were chosen.
- I feel it helped me a lot and it was great.
- I still battle my speech impairment because of a lack of commitment on my part.
- It helped my speech tremendously.

Student Clinicians/Supervisors

- [My clinician] was great to work with.

Scheduling

- My therapy plan was also too lengthy to be completed in the allotted time.
- I would like to take part in periodic sessions as soon as possible.

Parent Subjects

Attitudes Regarding Benefits

- [My son] came for over two years. The benefits he received were extraordinary. He started as a severe stutterer and ended his time with you knowing he had control over his speech. His speech remains good today and still uses techniques he learned at the clinic.
- [My daughter's] fluency was not a problem most of the time during therapy sessions. However, she still has trouble in everyday situations.
- [My son] is in a period of stuttering now and will use the techniques your program taught him. Even though my son is reluctant to use the techniques, he will use them.
- Great improvements during sessions.
- Though [my son] did not progress while seen at PSU, we both acquired skills and understanding which served us later.
- [PSU] was great help to us for several years. Thank you.
- [PSU] needs to stress ongoing practice with "stage 3" technique for stuttering. . . . Great help! Thanks!
- My young daughter, age 3, was taught to slow her speech down. Even though she cannot remember the actual times we saw our speech therapist, she still remembers not to "bounce" when she talks.

Student Clinicians/Supervisors

- The students and faculty we worked with were professional and outstanding.
- I am grateful for the help given my son and the care and knowledge given to me on how to help him and manage his future therapy.
- We worked with two different clinicians over the course of two semesters. Both were great!

Communication

- Was told [by PSU] that ideally a few weeks more of services were needed. However, since school was not in session, service was not available. Stuttering occurred again at the previous severity. I tried to call [PSU] and left quite a few messages on a [supervisor's] phone. Messages were never returned. I loved the clinicians, but felt that the [supervisors] and "department heads" don't really care if client improves or not.

Scheduling

- Should have been included in another sessions.

Compared to Other Programs

- Wonderful program I would recommend to anyone in need of it.
- Very good program.
- This was more beneficial than the private services we had.

Environment

- Only complaint was the old, wearing out sound system in the observation rooms. Sometimes missed whole sessions watching my child due to sound system failures.

Cost

- The price was great!
- This was a free service that was run professionally. Thanks, what more could you ask for.

Note: Names were deleted from comments and "my/our, son/daughter/child, and supervisor" were substituted. All quotes from the surveys were included in the above outline. However, some sentences contained elements from more than one of the above categories making it necessary to place part of a sentence in one category and part in another category.