ABSTRACT

Title of Thesis: THE EFFECT OF PERSONALITY ON ADULTS' PERCEIVED BENEFIT OF SPEECH THERAPY: A PILOT STUDY

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Previous research has found a link between personality and many aspects of life, including health issues, ability to cope with stress, career satisfaction, and hearing aid satisfaction. The effects of personality in the field of speech therapy have not yet been determined. It was the purpose of this study to evaluate the effect of personality on adults' perceived benefit from speech therapy.

Eleven current and former speech therapy clients participated in this study. Each were administered the Myers Briggs Type Indicator and a questionnaire assessing perceived benefit from therapy via telephone. The results indicated that personality does not affect one's perception of benefit from therapy; however, several factors may have limited the results of the study, including the small sample size and the limited number of participants who clearly fit each personality type.

THE EFFECT OF PERSONALITY ON ADULTS' PERCEIVED BENEFIT OF SPEECH THERAPY: A PILOT STUDY

by

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Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Master of Arts
2006

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Chapter 1: Introduction

Improving a client's speech and language is the goal of every speech-language pathologist. Speech-language pathologists (SLPs) typically believe treatment can be beneficial for all clients; however, clients differ in how beneficial they believe treatment to be. Clients who do not believe they benefit from treatment will frequently miss appointments, fail to complete take-home assignments, or decide not to continue with recommended services. This can result in a self-fulfilling prophecy, as failure to make appointments and complete assignments can then result in less benefit.

One factor that may contribute to clients' levels of perceived benefit from therapy is their personality. Personality has been found to affect the way a person experiences many aspects of life including career satisfaction, one's health, likeliness to follow health recommendations, and satisfaction with hearing aids (Amirkhan, Risinger, & Swickert, 1995; Barry & McCarthy, 2001; Barry & Barry, 2002; Glazer, Emery, Frid, & Banyasz, 2002; Lounsbury, Loveland, Sundstrom, Gibson, Drost, & Hamrick, 2003; Milam, Richardson, Marks, Kemper, & McCutchan, 2004). The effects of personality on perceived benefit of speech therapy have not yet been examined. The purpose of this study was to determine what effect personality might have on adults' perception of treatment benefit.

Personality Types and the Myers-Briggs Type Indicator

To determine the effects of personality on a client's perceived benefits from speech therapy, researchers must have a way to distinguish between different personality types. The classification of personality type that was used in this study, the *Myers-Briggs*

Type Indicator (*MBTI*) (Myers & Myers, 1998), is based on the work of an influential figure in the field of personality theory—Carl Jung.

Jung believed people differ in crucial ways. For example, when actively engaged in thought, some people tend towards *perceiving* (i.e., absorbing information) whereas others tend towards *judging* (i.e., organizing information and drawing conclusions). Those who tend to perceive could do so in two ways—*sensation* and *intuition*. Those who perceive with sensation tend to take in information that is real and tangible, while those who perceive with intuition see the big picture. Likewise, judgments also could be made in two ways—*thinking* and *feeling*. Thinking judgments are analytical and objective, while feeling judgments are made with consideration to others' feelings and opinions. Finally, Jung described the ways that people focus their energy to be either engaged with the external world, which he labeled *extraversion*, or engaged in the internal world, which he labeled *introversion*. According to Jung, everyone possesses aspects of each of these characteristics, but people tend to have some characteristics that are more dominant than the others (Myers, Kirby, & Myers, 1998).

Myers and Briggs used Jung's theory of personality as the foundation upon which they developed their type indicator (Myers, Kirby, & Myers, 1998). Jung's personality theory is not a model for how to assess or measure personality. Rather, it is a theoretical model for what constitutes personality. The *MBTI* attempts to measure those aspects of personality described by Jung.

The *MBTI* identifies eight personality preferences—extraversion, introversion, sensing, intuition, thinking, feeling, judging, and perceiving—based on Jung's theory (see Appendix A for a description of each preference). These preferences are organized

into four sets of opposite pairs called *dichotomies*. The test reports a person's dominant preference in each of the four dichotomies. The combination of these four preferences defines the person's personality *type*. The *MBTI* defines 16 personality types in all, based on all possible combinations.

Myers uses an analogy of right versus left-handedness to describe one's dominant personality preferences. Although most people have the ability to use either their left or right hand for completing tasks, most people have a dominant hand, one that is most comfortable and is most natural to use. In a similar way, people have a dominant personality preference for each of the four dichotomies, i.e., people are drawn to some preferences more than others. It is the combination of these four preferences that provides us with the best overall picture of one's personality (Myers et al., 1998).

The *MBTI* is designed for adults and is the most widely accepted personality measure used in research (Myers et al., 1998). Reliability measures have been fairly high. Myers, McCaulley, Quenk, and Hammer (1998) report the internal consistency of the *MBTI* to range from .91 to .92 depending on the scale. In an assessment of test-retest reliability, 66% of respondents reported the same four preferences after a four-week interval, and 91% were the same on 3 out of 4 preferences (Myers et al., 1998).

The validity of the *MBTI* is more difficult to assess. To demonstrate validity, the test must adequately reflect the personality theory it claims to represent. Although the developers of the *MBTI* report high validity of the assessment (Myers et al., 1998), research data are conflicting. Carlson (1985) reviewed the literature regarding the reliability and validity of the *MBTI* and found reliability and validity to be satisfactory for this inventory. A slightly more recent review of the literature by Pittenger (1993) found

insufficient support for the validity of the *MBTI*. Bayne (1995) reports that there are two types of support for the construct validity of the *MBTI*. One is its correlation with other personality measures, and the other is its connection with behavior (for example the career one chooses). Bayne reports that both correlations are quite high, although he does not report actual data to support these claims. Thompson and Borrello (1986) found evidence of the construct validity of the assessment through factor analysis of the items in a large-scale study using data from college students. Johnson, Mauzey, Johnson, Murphy, and Zimmerman (2001) conducted a more recent factor analysis of the *MBTI* and also found it to be a valid measure of personality characteristics although they questioned the existence of 16 unique personality types. The *MBTI* continues to be one of the most widely used personality measures (Myers, Kirby, & Myers, 1998). Despite this fact, few recent assessments of the indicator's validity and reliability have been conducted.

The *MBTI* is not the only measure that uses Jung's work as the foundation for evaluating personality. The *Keirsey Four Type Sorter* is another personality measure based on Jung's personality theory. This assessment was used in research regarding personality's effect on hearing aid satisfaction. This measure, although based on personality theory, lacks validity data. No validity measures have been completed, which makes this assessment less appealing for use in research.

Many aspects make up one's personality. It is unrealistic to assume any one personality measure could adequately evaluate every aspect of personality. Each personality measure attempts to assess the personality characteristics the developers consider to be most important based on the theoretical model to which they prescribe.

Jung's theory of personality is only one of many personality theories. Personality theories can be grouped into one of three models—conflict, fulfillment, and consistency. Personality theories describe how people are similar to and different from one another. Those who develop these theories attempt to find patterns in both the innate and learned behaviors and tendencies of people. Each personality theory is similar in that each describes forces or influences that shape the way people live their lives (Maddi, 1996).

Those who ascribe to the conflict model of personality theory believe that everyone is born with opposing drives that are continuously clashing. Maddi (1996) gives the example of being born with a drive towards altruism and also selfishness. Personality is shaped by how one expresses these clashing drives. An ideal existence would involve harmony between the two opposing forces. Jung's theory of personality fits within the conflict model (Maddi, 1996).

The fulfillment model holds that everyone is born with only one force rather than two opposing forces. Given the previous example, those who prescribe to the fulfillment model would expect people to be born with either the drive towards altruism or selfishness, not both. As people progress through life, they would express their inborn tendencies with greater sophistication. People's personality would be shaped by the level to which they accept and express their innate strengths (Maddi, 1996).

The consistency model defines personality as being shaped by reactions from the external world. This model asserts that everyone has expectations for what to expect in certain situations and that experiences either confirm or refute one's expectations. When expectations are not confirmed, discomfort is created. In this model, personality is

formed by trying to minimize or settle the conflict created when one's expectations are not met (Maddi, 1996).

The availability of research and discussion on Jung's theory and the *MBTI* was one reason the conflict model and Jung's theory were chosen for the basis of personality measurement in the present study on the effects of personality on perceived benefit from therapy. The availability of this widely used and valid tool was another reason why these methods were chosen. If follow-up studies are conducted, the use of alternate personality measurement tools, models, and theories could be considered to increase generalizability across theoretical beliefs.

Previous Research Related to the Effects of Personality

Although the effects of personality have not been studied in the field of speech-language pathology, the effects of personality have been examined in the related field of audiology, particularly with reference to satisfaction with hearing aids. Barry and McCarthy (2001) found that an Idealist personality type, as defined by the *Keirsey Four Types Sorter,* was negatively related to perceived benefit from hearing aids. Those who are Idealist value their relationships with others, and they trust their intuition when making decisions. They are imaginative, ethical, and empathetic (Keirsey, 1998). Those who are defined as Idealist by the *Keirsey Four Types Sorter* share personality characteristics with those who would prefer intuition and feeling as defined by the *MBTI*. Barry and McCarthy suggest that hearing aid users of this personality type may have unrealistically high expectations for their hearing aids, and they may be disappointed if their expectations are not fully met.

The Barry and McCarthy study included sixteen adult participants ranging in age from 60 to 75. This limited age range is most likely related to the population that the researchers were studying (i.e., adults who wear binaural hearing aids), which tends to be comprised of older adults. This limited age range may limit the generalizability of the results.

Barry and Barry (2002) conducted a follow-up study using a larger sample size (N = 40) and broader age range (ages 40 to 75). The results of this study also indicated that an Idealist personality type was negatively related to satisfaction with hearing aids. The authors hypothesized that the excessively optimistic idealists might be dissatisfied as a result of their high expectations. However, this study also found an additional relationship that had not been significant in the earlier study—the Artisan personality type was positively related to satisfaction with hearing aids. The finding of an additional relationship may be related to the larger sample size and broader age range used in this study. Artisans are daring, adaptable, spontaneous, and artistic. They strive to have an impact on others, and they are optimistic and focused on their present realities (Keirsey, 1998). Those who are defined as Artisan by the *Keirsey Four Types Sorter* share personality characteristics with those who would prefer sensing and perceiving as defined by the *MBTI*. The result of this study may be explained by Artisans' positive attitude and their willingness to look for compromises (Barry & Barry, 2002).

One of the reasons Barry and colleagues were interested in the effect of personality on perceived benefit of hearing aids is that a link had previously been found between personality and coping with stress. Being diagnosed with a hearing loss can be a stressful situation, and personality can affect one's ability to handle stress. In fact,

different personality types tend to cope with stress in different ways (Amirkhan, Risinger, & Swickert, 1995). Based on survey data, extroverts were more likely to seek social support when coping with stress than were introverts. Optimists were likely to use problem solving, while pessimists were likely to avoid their problems. However, the data for this study on stress coping were collected through a survey that asked participants to recall a stressful situation. This might not have been the best means for examining this issue because the data collection was reliant on participants' ability to recall the event and their strategies for coping with the stress created by the situation. In addition, participants experienced different stressful situations, all differing in degree of stressfulness. For these reasons, Amirkhan and colleagues (1995) performed a follow-up study, in which they created the source of stress; therefore, the source of the stressor was standardized and data collection was through observation rather than participant report. Participants were given 10 unsolvable anagrams, and they were informed that their goal was to solve as many anagrams as possible within fifteen minutes. All of the participants were informed that there was an assistant outside of the room who would provide help and clues as needed and that the request of assistance would not be seen as a penalty. A significant correlation was found between extraversion and help-seeking behaviors ($r = -.43$, $p < .01$). The results corroborated those found with surveys, in that extraversion predicted help-seeking behaviors. Extroverts requested help sooner, although how much sooner was not defined by the researchers, than the introverts during the stressful task. Optimism and pessimism were not addressed in the second study. These results suggest that personality types are associated with methods of dealing with stress (Amirkhan et al., 1995).

The personality characteristics of optimism and pessimism also have been found to contribute to other health issues. A study was conducted to assess the relationship between the personality characteristics of optimism and pessimism in HIV infection progression (Milam, Richardson, Marks, Kemper, & McCutchan, 2004). The progression of the infection was assessed by examining patients' viral load, which is a measure of virus replication in the blood stream. The results of the study showed that pessimism was associated with higher viral loads at the end of the 12-week program than was optimism, i.e., optimism was related to a slower progression of the infection. The researchers found that highly optimistic patients were more likely to adhere to the treatment program and were the least likely to have recently used drugs or cigarettes. Those who were highly pessimistic were less likely to have a healthy diet and more likely to use cigarettes. However, these variables did not explain the relationship found. The researchers note that HIV will eventually progress regardless of whether the patient is optimistic or pessimistic. Optimism did not protect against eventual disease progression. It also was determined that very high levels of optimism might not always be best for patients because it may lead to unrealistic expectations. In this study, moderate levels of optimism were found to be more optimal than very high levels of optimism (Milam et al., 2004).

Personality also has been found to affect outcomes in cardiac patients (Glazer, Emery, Frid, & Banyasz, 2002). Patients with coronary heart disease were assessed using the *Life Orientation Test*, the *Beck Depression Inventory*, and the *Trait Anxiety* subscale of the *State-Trait Anxiety Inventory* to determine their levels of optimism, depression, and neuroticism. These measures were then compared with physical measures to study the

relationship between personality factors and physical outcomes of these patients after participating in a rehabilitation program. The data analysis in this study included analysis of variance to assess change over time, correlational analyses to examine the relationship between baseline measures of personality and cardiac rehabilitation outcomes, and regression analyses to investigate the association among optimism, neuroticism, and depression with cardiac rehabilitation outcomes. High levels of depressive symptoms were related to poor improvement in cardiac patients, with 9.2% of variance in improvement being accounted for by depressive symptoms (this percentage of variance is statistically significant, however, a variance of 10% is commonly the minimum variance considered to be meaningful data). Attendance at exercise sessions did not predict improvement in aerobic ability, which suggests psychological functioning and personality characteristics were more pertinent than participation in the rehabilitation program. It also was found that a greater level of optimism and lowered neuroticism were associated with adherence to the program. This study highlighted the effects of psychological functioning and personality factors in the adherence to and outcomes of a treatment program, which is important information for healthcare workers treating these patients. Glazer et al. suggests that this information can be used to help obtain better outcomes for patients.

Personality also has been found to affect non-health related situations, such as career satisfaction (Lounsbury, Loveland, Sundstrom, Gibson, Drost, & Hamrick, 2003). Lounsbury and colleagues (2003) collected data from an archival source that represented a range of occupations and information from multiple personality and career satisfaction measures. Significant correlations (ranging from .69 and .86) were found between

personality characteristics and career satisfaction. Specifically, the personality characteristics optimism, work drive, assertiveness, tough-mindedness, emotional resilience, conscientiousness, agreeableness, and extroversion correlate with high career satisfaction. Optimism and work drive were the characteristics most related to high levels of career satisfaction. In contrast, neuroticism was most related to low career satisfaction, regardless of career type (Lounsbury et al., 2003).

In addition to the effects of personality characteristics on different aspects of one's life, research also has been conducted to determine the effects of the level of similarity between the personalities of counselors and clients. Nelson and Stake (1994) found that higher levels of similarity between counselors' and clients' ratings on the *MBTI* correlated with clients perceiving a more positive therapy relationship. Mendelsohn (1966) found that the similarity of clients' and counselors' personalities also had an effect on the duration of therapy. This study found that the duration of therapy is likely to be longer when the client and counselor have similar personality characteristics (Mendelsohn, 1966). The similarity of counselors' and clients' personalities has also been found to correlate with the number of sessions a client misses. Clients with personality characteristics similar to their counselor are more likely to miss sessions than those clients with dissimilar personalities (Mendelsohn & Geller, 1967). With all three of these studies, the clients' personality characteristics themselves were not found to have a significant effect on the results, only their similarity with their counselors' personality characteristics.

No studies have been conducted to determine the effect of personality on client perception of benefit from therapy, but some research has been conducted on the

relationship between personality characteristics and speech disorders. Research has found a link between certain personality characteristics and voice disorders (Moore, 1939; Roy, Bless, & Heisey, 2000). A relationship between personality and stuttering also has been sought, but research has shown conflicting results, with studies that state stuttering is not significantly related to specific personality patterns (Prins, 1972; Horlick & Miller, 1960; Fiedler & Wepman, 1951) and others stating there is a relationship (Bharath Raj & Pranesha Rao, 1970). Some studies have related stuttering to abnormal or maladjusted personality characteristics, such as anxiety or depression (e.g., Walnut, 1954; Ezrati-Vinacour & Levin, 2004).

In summary, the effects of personality have not been well studied in the field of speech-language pathology, but the effects of personality have been examined in several other fields. Studies in the field of audiology have found that personality is associated with people's satisfaction with hearings aids. Other studies have found that personality is related to one's ability to cope with stress. A link has even been found between personality and health-related issues such as disease progression and rehabilitation after a heart attack. Non-health-related situations such as one's level of career satisfaction have also been found to be associated with personality. Finally, the degree of similarity between the personalities of counselors and clients has been linked to clients' ratings of the quality of the therapeutic relationship, duration of treatment, and number of missed sessions. These studies all suggest that personality affects many aspects of one's life.

Limitations of Previous Research

Although the studies discussed provide important information to the field of personality research, they do contain some flaws. The studies regarding satisfaction with

hearing aids were conducted with a small number of participants, with the initial study having 40 participants and the follow-up study including only 16 participants. Both of these studies classified participants as one of four personalities. With a limited number of participants, the number of people fitting each personality type was small. The lack of large sample sizes limits the generalizability of the results. Another factor that may affect the validity of the satisfaction with hearing aids research was the use of the *Keirsey Four Type Sorter*. The *Keirsey Four Type Sorter* lacks validity data, which may make the validity of the results questionable as well. An additional limitation in the satisfaction with hearing aids research was that all the participants were male. The lack of female participants makes the results difficult to generalize across genders. Another flaw in the personality research methods is the population of the participants, in general. All of the studies, with the exception of one, included participants from the same geographical area. Geographical location may play a role in one's personality and this question has not been posed in any of the previous research. Other variables such as socio-economical class and cultural background also may play a part in personality and the factors that have been studied in previous research. More large-scale research with participants from diverse cultures and socio-economic class and from across geographical areas need to be conducted in order to better determine the effects of personality in real-life situations.

Personality research in general has been limited by the fact that there has not yet been a theoretical model developed regarding how personality differences influence real-life situations. Previous work has attempted to determine if any personality characteristics are related to aspects such as decision-making, health, and level of satisfaction with careers and hearing aids; but these studies have not determined a

theoretical explanation for why some personality factors may have greater effects on situations than do others. The development of a theoretical model regarding the effects of personality may lead to better research and more information in this field.

Given that personality has the potential to affect many aspects of people's lives, the lack of studies looking at the real-world effects of personality is surprising. A search of several databases, including PsychINFO, reveals little research in this field. There needs to be more research looking at the real-world effects of personality, in order to develop a theoretical model regarding the effects of personality.

Application to the Field of Speech-Language Pathology

Previous personality research suggests that personality can affect clients' perception of treatment benefits and their likelihood of adhering to a program of treatment. These findings could have many implications for the success of speech therapy as well. Understanding the relationship between personality type and perception of benefit could provide speech-language pathologists (SLPs) with additional information that would be helpful in best serving those clients. For example, if clients do not feel as though they are benefiting from services, they may be inclined to discontinue treatment or chose not to follow through with recommendations. If a SLP could predict which individuals were likely to perceive therapy as less beneficial, it might be possible to provide additional counseling to these clients before and during treatment about the benefits of speech therapy. Previous research has also found that clients' personalities can affect their ability to cope with stress. Being newly diagnosed with a speech disorder or continuing to struggle with a lifelong disorder can be stressful for clients. Having a good understanding of clients' personalities from the beginning of treatment may help

SLPs determine whether or how clients should be counseled on coping with the stress caused by the disorder.

SLPs typically know their clients' personalities well and are able to treat and counsel them without administering a formal personality test. However, it often takes many sessions to become acquainted with a client, and it may prove beneficial to determine a client's personality type from the beginning of therapy. Best practices also include providing clients with expected outcomes of therapy, so clients have realistic expectations. This practice may be even more important for those clients with personality types that we would expect to have unrealistic expectations. For these clients, it may be worthwhile to provide additional counseling regarding expected outcomes. Additionally, if certain personality types were found to exhibit attitudes regarding therapy that would make them unlikely to request further services, SLPs could be prepared to better counsel these clients so that they may continue with therapy.

Research Purpose and Hypotheses

Previous research regarding the relationship between personality and satisfaction with hearing aids showed that personality was linked to a client's perceived benefit from hearing aids. This research laid the groundwork for the current study and raised the question as to whether or not personality would also affect perceived benefit from speech therapy. However, this previous research had some limitations that could be improved upon. The goal of the current study was to model the previous hearing aid satisfaction studies with a different population—speech therapy clients— while also improving upon some of the limitations of the previous research.

The previous research in the field of audiology found that an Artisan type, as defined by the *Keirsey Four Type Sorter*, was related to positive satisfaction with hearing aids and the Idealist type defined by the same measure was related to negative satisfaction with hearing aids (Barry & Barry, 2002). The *Keirsey Four Type Sorter* and the *MBTI* are both founded on the same personality theory, but each measurement tool defines personality differently. The *Keirsey Four Type Sorter* classifies people into four types, whereas the *MBTI* classifies into sixteen types. This does not allow for direct predictions in the current study.

The *Keirsey Four Type Sorter's* Artisan temperament is related to sensing and perceiving as defined on the *MBTI*. In this current study, it may be expected that participants with these two characteristics would reveal similar results to those of the audiology studies. This prediction is difficult to make, however, because the other variables are not known. An Artisan is always dominant in sensing and perceiving but can also be either introvert or extrovert and feeling or thinking. Two of the other types defined by the *Keirsey Four Type Sorter* could also be classified as sensing or perceiving, although not both factors. The Idealist type also has two dominant characteristics—intuition and feeling—and can also have a variety of the other characteristics. Given that the exact make-up in terms of characteristics of the Artisans or Idealist in the audiology study is unknown, it is impossible to know which factor or combinations of factors were related to the effect seen. Furthermore, the current study is addressing the effects of individual personality characteristics rather than the effects of combinations of personality characteristics. This difference of approach makes it even more difficult to make direct predictions based on the previous research.

Although direct predictions for the current study could not be drawn from the hearing aid satisfaction studies because the previous study used the *Keirsey Four Type Sorter* and not the *MBTI* as the personality measurement tool, the presence of an effect of personality on perceived benefit from hearing aids does suggest that personality should also have an effect on perceived benefit from speech therapy.

At the onset of this study, it was expected that the dichotomy sensing vs. intuition would have the greatest effect on perceived benefit from therapy. The sensing vs. intuition dichotomy describes the way people take in information. People who favor sensing prefer to take in information that is factual and concrete, while those who favor intuition prefer to look at the big picture and use their imagination to draw conclusions. It was expected that people who favor intuition would rate their perceived benefit from therapy higher than those who favor sensing. This hypothesis may be explained by the observation that people in these two groups often display very different personality characteristics and tendencies. Some possibilities for the expected effect of this preference on perceived benefit from therapy are that—

- People who favor intuition tend to be oriented toward future possibilities, whereas those who favor sensing are often oriented toward their present realities (Myers, Kirby, & Myers, 1998). Therefore, people who favor sensing may tend to think about their current speech when rating their benefit from therapy, while those who favor intuition might look towards future progress.
- People with these two opposing personality preferences tend to develop conclusions in very different ways. Those who favor intuition tend to jump to conclusions quickly, whereas those who favor sensing are typically more

careful when drawing conclusions (Myers, Kirby, & Myers, 1998). Because of this, those who favor sensing may require more concrete proof before concluding that they have benefited from therapy.

- People who favor sensing tend to focus more on details, while those who favor intuition tend to look at the "big picture" (Myers, Kirby, & Myers, 1998). This may result in those who favor sensing to focus on individual goals that are not met, while those who favor intuition may perceive overall progress, even if there are still areas that need to be worked on.
- People who favor sensing often make decisions and comparisons based on experience and standards, while those who favor intuition tend to thrive on possibilities and creativity (Myers, Kirby, & Myers, 1998). This method of drawing conclusions may cause those who favor sensing to consider their progress to be poor because they may compare themselves to individuals with typical speech abilities. Those who favor intuition, on the other hand, may be better able to perceive their progress as an individual and focus on future goals.
- People who favor sensing tend to focus on skills that they have already developed, while those who favor intuition typically enjoy learning new skills (Myers, Kirby, & Myers, 1998). Thus, those who favor sensing may tend to view inferior abilities negatively, regardless of progress, while those who favor intuition may enjoy the challenge of improving their speech.

It also was expected that the thinking vs. feeling dichotomy would be related to participants' level of perceived benefit from therapy. The thinking vs. feeling dichotomy

describes the way people make decisions. People who favor thinking prefer to make decisions using logic and analysis, while those who favor feeling prefer to make decisions based on personal values and how their decisions will affect the people involved. Because people who favor thinking tend to draw conclusions based on objective reasoning, it was expected that they would perceive benefit from therapy despite emotional frustrations that may have been encountered. Conversely, it was expected that people who favor feeling might perceive less benefit from therapy as a result of emotional frustrations that may have been encountered by themselves, family, friends, or even their SLPs (Myers, et al., 1998).

The sensing vs. intuition dichotomy describes the way people take in information, while the thinking vs. feeling dichotomy describes the way people make decisions. Because these dichotomies deal with the way people process information and draw conclusions, it was expected that they would affect the way a client perceives their benefit from therapy. The extraversion vs. introversion dichotomy describes the way people interact with others, while the judging vs. perceiving dichotomy describes the way people interact with their environment. Although these dichotomies may have significant effects on therapy itself, they were not expected to affect a client's perceived benefit from therapy.

Despite the logical nature of these hypotheses, the lack of a theoretical model in this field makes these hypotheses speculative at best. There is no theoretical basis upon which to hypothesize which, if any characteristics may be relevant to the study. Formulation of a research model for this field would allow researchers to better hypothesize what aspects of personality to focus on or measure.

The purpose of this study was to determine the relationship between personality type and perceived benefit from speech therapy. This purpose was accomplished by measuring participants' personality preferences using the *MBTI* and correlating these preferences with participants' perceived benefits from speech therapy.

Chapter 2: Method

Participants

Participants were chosen from a pool of clients who had previously, or who were at the time of participation, receiving speech therapy services at the University of Maryland Speech and Hearing Clinic. All participants met the following criteria:

- Diagnosed speech disorder (i.e., fluency, voice) or diagnosed area of speech concern for which they had sought or were seeking treatment (i.e., accent reduction)
- History of a maximum of two-years enrollment in speech pathology service as an adult (it was thought that those who had received treatment for more than two years would be more likely to be satisfied with therapy)[1]
- Treatment for a minimum of one semester had occurred
- Treatment for speech disorder had occurred within the past seven years
- A release indicating willingness to be contacted to participate in research at the university had been signed
- Over the age of 18 at the time of therapy.

Clients with diagnosed language disorders, neurological problems, and below average intelligence were excluded as participants in this study because these factors may have affected clients' ability to complete the questionnaires used in the study. Participants were not excluded or included on the basis of gender, ethnicity, race, or socioeconomic status.

[1] Several clients were eliminated from the potential pool of clients because they had been receiving services for more than two years. The majority of these potential participants were male clients who had been seeking fluency treatment. A few accent reduction clients also were excluded due to length of treatment.

Eleven previous clients participated in the study—seven males and four females. The study included nine fluency clients, one voice client, and one accent reduction client.

Procedure

The researcher reviewed clinic records to identify clients who met the participation criteria. Forty-six clients met the criteria (24 males, 22 females). A packet of information pertaining to the study was mailed to the 46 potential participants. Each packet included a letter to the participant explaining the purpose and procedure of the study, two copies of the informed consent form, and a contact information form. To increase the return rate, all packets included a self-addressed stamped envelope. Follow-up calls also were made to the potential participants to encourage participation in the study and completion of the consent form.

The number of participants was not as high as anticipated. For a number of the 46 potential participants, the contact information was found to be out-of-date, preventing contact. Eleven of the 46 information packets sent out were returned to the researcher because of out-of-date addresses. The researcher telephoned all potential participants who did not return the information packet after a few weeks. The phone numbers were found to be out of date for the 11 potential participants for whom the packets were returned because out-of-date addresses, along with 9 other potential participants. Of the 26 remaining potential participants, 13 agreed to participate, resulting in at least a 50% response rate.[2] The 22 potential participants who may have received the packet (i.e., those whose packets were not returned-to-sender because out-of-date address), but did

[2] Several participants were not successfully contacted by telephone (e.g., no voice mail, voice mail not returned). It is unknown whether these participants received the packet and/or telephone messages.

not participate, included twelve fluency clients, seven accent reduction clients, and three voice clients.

Of the 13 people who agreed to participate, 11 clients completed the protocol. The two potential participants that did not complete the questionnaires were both accent reduction clients, for whom English was their second language. During the administration of the *MBTI*, both potential participants made several requests for explanations of test items. It was determined by the researcher that the need for re-wording and clarification of the test items would significantly decrease the validity of the *MBTI*, and therefore, administration of the questionnaire was terminated.

The data collection for this study was completed by phone. This method was chosen to encourage participation by reducing the time commitment required to participate in the study. Additionally, it was believed that data collection by phone would reduce the influence of the examiner on the participants' answers. All participants were required to return the consent form to the examiner before being contacted by phone for completion of the questionnaires.

Test Instruments

The *MBTI* Form M was used to determine personality characteristics. The test consisted of 93 questions, each with two answer choices. The following are some examples of test questions:

- "When you go somewhere for the day, would you rather plan what you will do and when or just go?"
- "Would you say it generally takes others a lot of time to get to know you, or a little time to get to know you?"

- "Which word in each pair appeals to you more? orderly or easygoing" (Myers & Myers, 1998).

Questions on the *MBTI* are not weighted differently for males or females. No studies have found that gender affects the results of the *MBTI*. Although more males participated in the study than did females, this is not expected to affect the results.

To qualify to administer the *MBTI*, the examiner must have completed a training course for the instrument or have a minimum of a bachelor's degree, including the completion of a college course on assessment. The researcher received qualification to administer the *MBTI* based on holding a bachelor's degree and completion of a course on assessment.

Participants also completed a questionnaire, developed by the researcher, which assessed their perceived benefit from treatment. The questionnaire consisted of 5 statements that were designed to evaluate the participants' level of perceived benefit from treatment. The following is an example of a statement from the questionnaire: "My speech has improved because of treatment." (See Appendix B for the complete questionnaire.) The participants were instructed to rank on a 5-point scale how much they disagreed or agreed with the statement. The scale included these responses: strongly disagree, disagree, neutral, agree, and strongly agree. A 5-point ordinal scale was used because it has been found that 5-point scales are the most reliable (McKelvie, 1978). There is no psychometric advantage to using a larger number of categories, and scales utilizing fewer than 5 categories may lose validity and discriminative power (McKelvie, 1978). Some statements in the perceived benefit questionnaire were worded positively, for example—"My speech has improved because of treatment." Other statements were

worded negatively, for example—"Speech therapy has not changed my speech." Questions 1, 3, and 5 were positively worded statements. Questions 2 and 3 were negatively worded statements. A single perceived benefit score was calculated based on the participant's responses to all questions on this questionnaire. There is no reliability or validity data for this questionnaire.

Actual benefit from therapy was not judged. For most clients, treatment is beneficial to differing degrees. The level to which clients benefit is a subjective measure determined by the treating clinician, and can therefore vary from clinician to clinician. Given that the participants have had different SLPs and disorders, a valid rating of actual benefit could not be determined. The researcher only determined the participants' level of perceived benefit from therapy.

Data Analysis

The level to which participants favored a preference in each of the four personality dichotomies was measured by calculating difference scores. Points were given for each preference based on a participant's response to questions on the *MBTI*. Difference scores were determined by subtracting the number of points earned for one preference from the number of points earned for the opposite preference in each dichotomy (e.g., extraversion points minus introversion points). For example, if a participant had 15 extraversion points and 6 introversion points, he would have a difference score of 9 for the extroversion vs. introversion dichotomy. A higher difference score, regardless of direction, indicated a more significant level of dominance for one of the two personality preferences. A difference score closer to zero indicated a less significant level of dominance for either preference. A positive score would indicate a

dominance of the first preference in the dichotomy (e.g., extroversion in the extroversion vs. introversion dichotomy), and a negative score would indicate a dominance of the second preference in the dichotomy (e.g., introversion in the extroversion vs. introversion dichotomy).

The range of possible scores differs for each of the dichotomies. Possible scores for the extroversion vs. introversion dichotomy range from -21 to +21. Possible scores for the sensing vs. intuition dichotomy range from -26 to +26. Possible scores for the thinking vs. feeling dichotomy range from -24 to +24. Finally, possible scores for the judging vs. perceiving dichotomy range from -22 to +22.

A perceived benefit-from-treatment score was calculated for participants based on participants' responses to the perceived benefit questionnaire. Questionnaire answers, rated from strongly disagree to strongly agree, were assigned numerical values ranging from 1 to 5. A score of 1 was given for the most negative possible response and a score of 5 was given for the most positive possible response. A participant's perceived benefit score was then determined by calculating the average score for his or her responses to the questionnaire. An average score was used because all of the questions rate one underlying construct: perceived benefit from therapy. A high score (i.e., closer to 5.0) corresponded with a high-perceived benefit from treatment, while a low score (i.e., closer to 1.0) corresponded with a low perceived benefit.

Chapter 3: Results

Participants' dominant personality preferences were incorporated into a multiple regression framework to determine which dichotomies or personality types (i.e., combination of dominant preferences) accounted significantly for the variance in perceived benefit from therapy. This analysis was used to determine the best combinations of predictors that had an effect on perceived benefit from therapy. The independent or predictor variables in the multivariate analysis were the personality preferences. The dependent or predicted variable was perceived benefit from therapy.

The regression analysis revealed no significant effect of personality on perceived benefit from therapy ($F<1$). Correlations between personality dichotomies and perceived benefit from therapy were not significant (extroversion/introversion, $r = -.32$, $p = .33$; sensing/intuition, $r = -.05$, $p = .88$; thinking/feeling, $r = .19$, $p = .58$; judging/perceiving, $r = -.03$, $p = .93$). Figures 1–4 at the end of this section display the relationship between each of the personality dichotomies and perceived benefit from therapy. Table 1 shows the mean, standard deviation, and range of scores for each of the variables.

Possible scores for the extroversion vs. introversion dichotomy range from -21 to +21. Scores ranging from –13 to –21 or 13 to 21 would indicate a clear preference for one factor. A positive number is related to the first characteristic in the dichotomy—extroversion in this case. Participants' level of extraversion vs. introversion ranged from -21 to +21. The mean score in this dichotomy was 1.0. Only three participants showed a clear preference for either introversion or extroversion.

Possible scores for the sensing vs. intuition dichotomy range from -26 to +26. Scores ranging from –16 to 26 or 16 to 26 would indicate a clear preference for one

factor. Participants' level of sensing vs. intuition ranged from -26 to +18. The mean score in this dichotomy was -3.6. Again, only three participants displayed a clear preference in this dichotomy.

Possible scores for the thinking vs. feeling dichotomy range from -24 to +24. Scores ranging from –14 to -24 or 14 to 24 would indicate a clear preference for one factor. Participants' level of thinking vs. feeling ranged from -20 to +14. The mean score in this dichotomy was 2.5. Only three participants showed a clear preference in this dichotomy with one being feeling and the other being thinking.

Possible scores for the judging vs. perceiving dichotomy range from -22 to +22. Scores ranging from –12 to -22 or 12 to 22 would indicate a clear preference for one factor. Participants' level of judging vs. perceiving ranged from -16 to +18. The mean score in this dichotomy was 5.6. Five participants demonstrated clear preferences in this dichotomy. Four of the five preferred judging.

Participants' level of perceived benefit ranged from 3.6 to 5 with a mean score of 4.3, indicating a high level of perceived benefit from therapy.

Table 1: Means (with Standard Deviations) and Ranges of Variables

Variable	Mean (S.D.)	Range
Extraversion vs. Introversion	1.00 (12.36)	-21 to +21
Sensing vs. Intuition	-3.64 (13.93)	-26 to +18
Thinking vs. Feeling	2.45 (10.84)	-20 to +14
Judging vs. Perceiving	5.64 (10.73)	-16 to +18
Level of Perceived Benefit	4.35 (0.49)	3.6 to 5

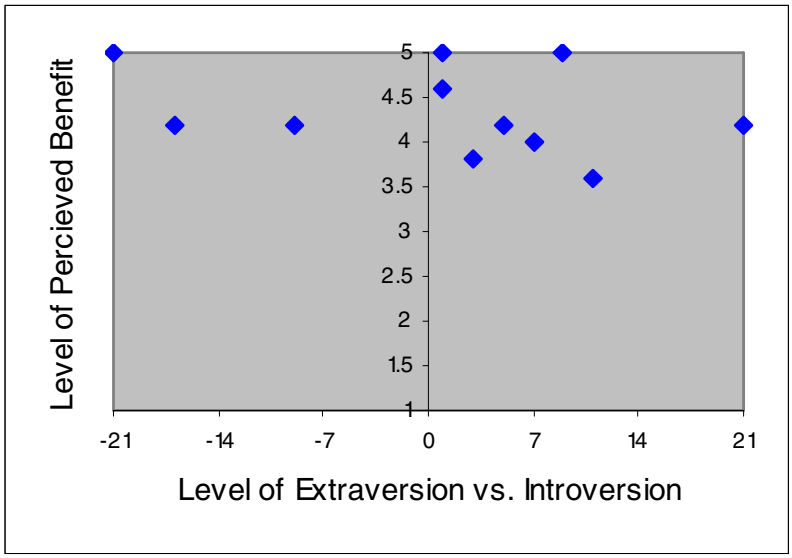

Figure 1: Perceived Benefit from Therapy vs. Extraversion vs. Introversion Difference Score

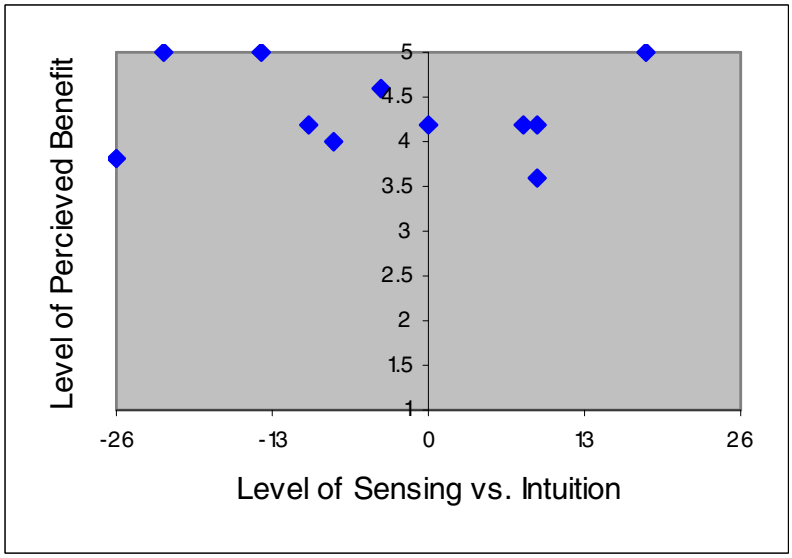

Figure 2: Perceived Benefit from Therapy vs. Sensing vs. Intuition Difference Score

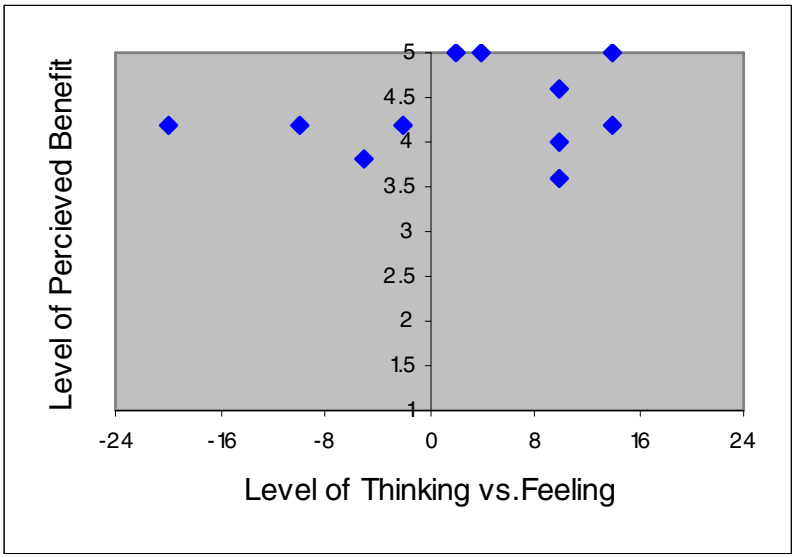

Figure 3: Perceived Benefit from Therapy vs. Thinking vs. Feeling Difference Score

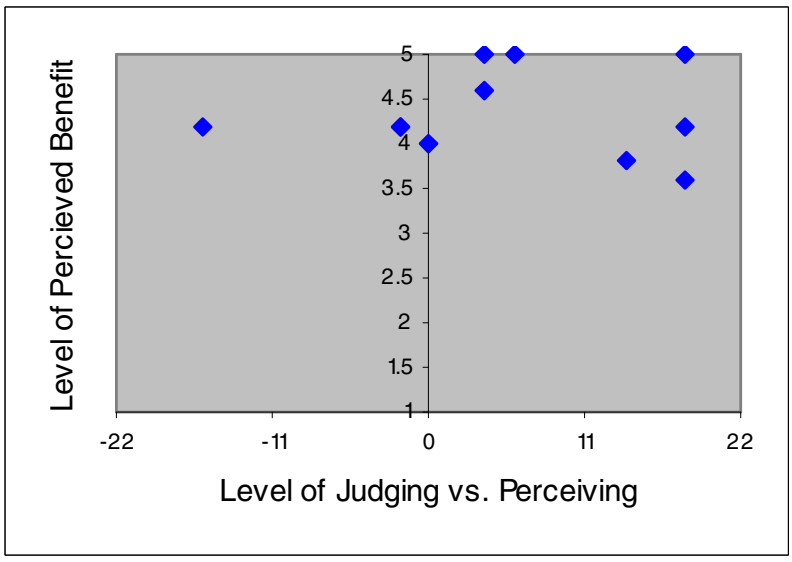

Figure 4: Perceived Benefit from Therapy vs. Judging vs. Perceiving Difference Score

Chapter 4: Discussion

The goal of this study was to determine if personality characteristics affect adult clients' perceived benefit from speech therapy. The study ultimately became a study regarding the effects of personality on adult *fluency* clients' perceived benefit from speech therapy, because the majority of the participants (i.e., nine out of eleven) were fluency clients. The results obtained from this study did not indicate a significant relationship between clients' dominant personality preferences and their perceived benefit from therapy.

The sensing vs. intuition dichotomy was expected to have the greatest effect on perceived benefit from therapy. These personality characteristics did not significantly correlate with perceived benefit from therapy. One explanation for this lack of a significant effect is that only a quarter of the participants exhibited a clear preference for either the sensing or intuition personality preference. This lack of a clear dominant preference may have greatly affected the results of the study by limiting the measurable effect of this dichotomy on perceived benefit from therapy.

The thinking vs. feeling dichotomy also was expected to have an effect on clients' perceived benefit from therapy, with those clients who favored the thinking personality preference exhibiting a higher perceived benefit from therapy. The participants in this study, however, did not exhibit any significant effects on this dichotomy. One explanation for this is that although clients may formulate a conclusion in different ways, the end conclusion may be independent of the method by which it was reached. Also, although emotional frustrations encountered by clients who favor feeling may lessen their perceived benefit from therapy, positive emotional experiences (e.g., developing a

friendly relationship with clinician) may offset this effect. As with the sensing vs. intuition dichotomy, the lack of participants exhibiting a strong dominance of either the thinking or feeling personality preference may have limited the measurable effect of this dichotomy on perceived benefit from therapy.

As expected, the extraversion vs. introversion and judging vs. perceiving dichotomies did not exhibit any significant effect on clients' perceived benefit from therapy. Because these dichotomies describe the way in which an individual interacts with other people and the individual's environment respectively, they were not expected to affect the way an individual perceives benefit from therapy (Myers, Kirby, & Myers, 1998). The results for the extraversion vs. introversion dichotomy also may be attributed to the small number of participants exhibiting a strong dominance of extraversion or introversion. Additionally, the absence of a significant effect of the judging vs. perceiving dichotomy may be attributed to the lack of variation between participants' difference scores for this dichotomy. The majority of participants exhibited a strong dominant judging preference, while few participants exhibited a dominant perceiving preference.

Another explanation for the results that may apply to all the dichotomies is that other factors, such as actual benefit from therapy, severity of disorder, and length of therapy, may have directly affected clients' perceived benefit from therapy. Similarly, therapy expectations, definition of benefit, type of disorder, clinician personality characteristics, or similarity of clinician and client personality characteristics, may have overshadowed the effect of clients' personalities on their perceived benefit from therapy.

The study may have been affected by clients' expectations for therapy in that what one client defines as successful treatment may differ from what another client defines as successful treatment, based on their previous expectations. For example, a client who began therapy with high expectations may require more significant results than a client who began with low expectations, to consider treatment to have been successful. Although expectations from therapy may be, in part, a function of personality, they may also be affected by other factors such as what clients have been told by clinicians, what they have been taught through the media, their past experiences, or the expectations of others.

Benefit from therapy can be defined in different ways. Benefit can include factors other than improvement in speech, such as more confidence in speaking, greater willingness to engage in conversation, and reduced anxiety about speaking. The current study attempted to assess benefit from treatment broadly, however 2 of the 5 questions in the perceived benefit from therapy questionnaire were directly related to improvement in speech. None of the other statements referred to additional possible benefits from therapy, and this combined with the mention of speech improvement might have led participants to only focus speech improvement when rating each statement. Perhaps investigating the effect of personality on perceived benefit more broadly, including both improvement in speech as well as other possible benefits, would lead to different results than those seen in the current study.

Clients with different types of speech disorders may tend to perceive benefit from therapy differently. This may be related to the nature of a disorder or it may be related to other characteristics common among clients with a particular disorder. For example, one

may hypothesize that clients with fluency disorder may be less likely to perceive benefit from therapy than voice clients because fluency clients will often continue to stutter occasionally, even after participating in intensive therapy, while many voice clients' symptoms can be resolved after only a few weeks of treatment.

Clinician personality characteristic or the similarity of clinician and client personality characteristics also may have overshadowed the effects of clients' personalities on perceived benefit from therapy. For example, previous research suggests that the similarity between a client's and clinician's personality types may play a role in the success of treatment with regards to client's perception of the therapy relationship, duration of therapy, and number of missed sessions (Nelson & Stake, 1994; Mendelsohn, 1966; Mendelsohn & Geller, 1967). The similarity of clinician and client personality characteristics was not assessed in this current study, because all participants had multiple clinicians during their time in therapy, and this relationship was beyond the scope of the study. The effect of clinicians' personality characteristics on clients' perceived benefit from therapy was also beyond the scope of this current study.

Another factor that may have affected the results of the study is the precise personality characteristics that were measured. Perhaps, these particular personality characteristics do not affect perceived benefit from speech therapy. As previously stated, no measure of personality can accurately account for every characteristic that forms one's personality. Perhaps characteristics other than those measured by the *MBTI* have a greater effect on one's perceived benefit from speech therapy.

One possible characteristic that was not studied and may have an effect on perceived benefit from therapy is optimism. Previous studies have found a link between

optimism and several factors such as disease progression, ability to cope with stress, improvement seen in cardiac patients, and job satisfaction (Milam et al., 2004; Amirkham, et al., 1995; Glazer et al., 2002; Lounsbury et al., 2003). Follow-up research should be conducted to evaluate optimism in speech therapy clients to determine if it has similar effects on perceived benefit from therapy.

Previous studies in the field of audiology have found a link relating personality to perceived benefit from hearing aids. Speech language pathology and audiology are highly related fields, and therefore, one would expect to find similar results regarding the effects of personality on satisfaction with hearing aids and on satisfaction with speech therapy. The results of this study seem to indicate that personality does not affect clients in these fields similarly. This may be attributed to several limitations with the current study, including the small sample size, method of data collection, personality variance of participants, and ratings of therapy. That said, the present study used different measures of personality than did this prior study. The most similar means of analysis would be to compare individuals who favored both sensing and perceiving (those most like the Artisan temperament) to those who favored both intuition and feeling (those most like the Idealist temperament). Of the 11 participants in the current study, only two favored both sensing and perceiving, and three favored both intuition and feeling; the others favored some combination of these factors, and would not fit neatly into either temperament. Comparing the perceived benefit scores for these two subgroups of participants, we find that those who are the most like the Artisans rated their perceived benefit from therapy slightly higher than those who are the most similar to the Idealist with average ratings of

4.2 and 4.0, respectively. This trend is similar to the results found in the audiology studies.

Limitations of the Study

A variety of factors contributed to the small sample size obtained for this study. One factor was the small pool of potential participants. As a result of confidentiality regulations and time constraints on the study, the researcher could only recruit speech clients from the University of Maryland Speech and Hearing Clinic. This greatly restricted the number of potential participants. Another reason for the small sample size was the low return rate of the consent to participate forms. Many of the information packets were returned to the researcher because of out-of-date addresses. Many of the potential participants were no longer receiving services at the University of Maryland, and the clinic no longer had current contact information. Additionally, several potential participants received the packet but decided not to participate.

The method of the study itself also may have limited the sample size. Participants were administered the questionnaires over the telephone. This procedure may have discouraged potential participants from participating. Many of the potential participants were people with fluency disorders, and many people who stutter avoid telephone conversations, which may have influenced their decision not to participate. Although this did not influence all of the participants, as the majority of participants in the study were likewise fluency clients, many of the potential participants who did not participate were fluency clients and they could have been apprehensive about the telephone data collection.

Another factor that may have affected this study, as well as previous and future research in the field of personality, is the personality variance of the participants. It may be the case that certain personality types are more or less likely than others to participate in research studies. In this current study, the majority of participants were more dominant in extroversion than introversion. This may indicate that extroverts are more likely to participate in research projects. If this is the case, the results of the study may not be a valid reflection of real-life effects of personality because the research would not be evaluating a real-world distribution of personality characteristics. This limited personality variance also may not allow for statistically significant results, because only a small number of participants exhibit each particular personality type.

Another limitation of this study is that there was little variation in participants' perceived benefits from therapy. None of the participants felt as though they had not received benefit from therapy. Perceived benefit from therapy was ranked on a 5-point scale, with 5 being the highest level of benefit. Participant scores only ranged form 3.6 to 5.0. The lack of variance in perceived benefit could have been related to the questionnaire. The questionnaire used a 5-point scale. A 7-point scale would have allowed for more variance. Had there been a greater variation in perceived benefit from therapy scores, the results of the study may have been different.

Another limitation, which may have affected participants reported level of perceived benefit from therapy, was the perceived benefit questionnaire itself. This questionnaire was developed by the researcher, and it has no reliability or validity data. Perhaps this tool did not accurately assess participants perceived benefit from therapy, in which case the results of the study would not be valid.

Future Research

The results of this study seem to indicate that personality does not affect perceived benefit from therapy. There were however, many factors that may have limited the generalizablity of the results. More research should be conducted in this area in order to more clearly define the effect of personality on perceived benefit from therapy. Larger sample sizes, for example, may allow for more detailed and significant information. Expanding the definition of benefit from therapy to include all possible benefits from therapy may also lead to more in-depth information regarding the effects of personality on perceived benefit from therapy. In addition to determining the effects of personality on perceived benefits for therapy, research should be conducted to determine effective ways to counterbalance these possible effects.

Follow-up research utilizing other theoretical models to define personality, as well as other measures of personality, should also be conducted. More research in this area as well as other real-world situations would advance the development of a theoretical model regarding the effects of personality in real-world situations. This would allow researchers to make better predictions in research, and facilitate more valid and sophisticated research in this field.

Future research could explore the effect of the similarity of clients' and clinicians' personalities on perceived benefit from therapy. This research may lead to changes in the field, such as matching clinicians and clients based on personal characteristics, to better build strong therapeutic relationships and increase the success of treatment.

Future research could also explore how the personality characteristics of parents affect their perception of their children's benefit from speech and language therapy.

Unlike the current study, this research could include parents of children with language disorders because the children themselves would not need to participate in the study. Researchers would not need to be concerned about a child's lack of understanding of the language. Assessing the relationship between parents' personalities and perceived benefit from therapy could lead to valuable information for SLPs working with children. This information could help to build stronger relationships between parents and SLPs, which in turn could enhance the effectiveness of therapy.

Although this study did not find a link between personality and perceived benefit from therapy, findings from previous studies suggest that personality plays a large role in many aspects of life. More research needs to be conducted in order to determine personality's effects on satisfaction with speech and language therapy. This information will allow SLPs to tailor their interactions with clients to better fit the way clients think, feel, perceive, and interact, and ultimately increase clients' benefit from therapy.

Appendix A

Excerpted from *Introduction to Type* (Myers, Kirby, & Myers, 1998, p. 9-10)

Extraversion

- Attuned to external environment
- Prefer to communicate by talking
- Work out ideas by talking them through
- Learn best through doing or discussing
- Have broad interests
- Sociable and expressive
- Readily take initiative in work and relationships

Introversion

- Drawn to their inner world
- Prefer to communicate in writing
- Work out ides by reflecting on them
- Learn best by reflection, mental "practice
- Focus in depth on their interests
- Private and contained
- Take initiative when the situation or issue is very important to them

Sensing

- Oriented to present realities
- Factual and concrete
- Focus on what is real and actual
- Observe and remember specifics
- Build carefully and thoroughly toward conclusions
- Understand ideas and theories through practical applications
- Trust experience

Intuition

- Oriented to future possibilities
- Imaginative and verbally creative
- Focus on the patterns and meanings in data
- Remember specifics when they relate to a pattern
- Move quickly to conclusions, follow Hunches
- Want to clarify ideas and theories before putting them into practice
- Trust inspiration

Thinking

- Analytical
- Use cause-and-effect reasoning
- Solve problems with logic
- Strive for an objective standard of truth
- Reasonable
- Can be tough-minded
- Fair-want everyone treated equally

Feeling

- Empathetic
- Guided by personal values
- Assess impacts of decisions on people
- Strive for harmony and positive interactions
- Compassionate
- May appear "tenderhearted"
- Fair-want everyone treated as an individual

Judging

- Scheduled
- Organize their lives
- Systematic
- Methodical
- Make short- and long-term plans
- Like to have things decided
- Try to avoid last-minute stresses

Perceiving

- Spontaneous
- Flexible
- Casual
- Open-ended
- Adapt, change course
- Like things loose and open to change
- Feel energized by last-minute pressures

Appendix B

1. **My speech has improved because of treatment.**

   Strongly Disagree-----Disagree-----Neutral-----Agree-----Strongly Agree

2. **I have not made progress in my speech while in therapy.**

   Strongly Disagree-----Disagree-----Neutral-----Agree-----Strongly Agree

3. **I would continue or restart speech treatment if it was recommended.**

   Strongly Disagree-----Disagree-----Neutral-----Agree-----Strongly Agree

4. **Speech therapy has not changed my speech.**

   Strongly Disagree-----Disagree-----Neutral-----Agree-----Strongly Agree

5. **I have benefited from speech therapy.**

   Strongly Disagree-----Disagree-----Neutral-----Agree-----Strongly Agree

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