ACCEPTANCE OF STUTTERING AND ITS CORRELATES

Thales De Nardo

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Committee:

Rodney Gabel, Advisor
Roger Colcord
Alexander Goberman
ABSTRACT

Rodney Gabel, Advisor

This study explored the relationships between acceptance of stuttering and 1) psychosocial factors (self-esteem; hostility; emotional support; discrimination) 2) demographic characteristics (gender, age, race, education, occupation, income); 3) self-rating of severity); and 4) treatment history (treatment duration, treatment type, overall treatment satisfaction, support group participant). Adults who stutter were recruited with assistance from fluency disorders specialists and the National Stuttering Association. The final sample included 80 adults who stutter. A significant positive correlation was found between self-esteem and acceptance of stuttering. Conversely, negative correlations were found between perceived discrimination and acceptance and hostility and acceptance, suggesting that those participants reporting less perceived discrimination or hostility reported higher acceptance of disability. Surprisingly, demographics characteristics, stuttering severity, and therapy history did not have a significant effect on acceptance of stuttering.
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CHAPTER I: LITERATURE REVIEW

Stuttering

Stuttering is a complex communication disorder having affective, behavioral, and cognitive components (Yarruss & Quesal, 2004). The most obvious characteristic of stuttering are the involuntary and abnormal disfluencies, which result in stoppages in the forward flow of speech. Although some disfluency is normal in speech, the speech of people who stutter (PWS) generally contains “stuttering like disfluencies” in the form of (1) repetitions of sounds, syllables, or words; (2) sound prolongations; or (3) “blocks,” which are a momentary or lasting session of sound at an inappropriate location (Guitar, 2006; Ward, 2006). These stoppages are known as the core behavior of stuttering. In an attempt to hide, delay, or mask core stuttering behaviors, individuals who stutter may develop secondary behaviors. Secondary behaviors are learned behaviors which have the potential to become habituated (Ward, 2006). Examples of secondary behaviors include: sudden loss of eye contact, rapid eye blinking, head jerking, circumlocution, and interjections.

Stuttering affects approximately 1% of the general population and usually has an onset before the age of 5 (Guitar, 2006). If not overcome in childhood, stuttering can become a chronic condition. Adults and adolescents whose stuttering is chronic may show advanced stuttering characteristics, with deeply learned patterns of escape behaviors and avoidances. Individuals with advanced stuttering are not likely to fully recover and must learn to live effectively with the disorder (Guitar, 2006).

Not unlike other disabilities, stuttering can affect nearly all aspects of a person’s life (Williams, 2006). Experts agree that there is much more to stuttering than what listeners hear. The individual’s negative emotional and physical reactions often add a great deal of complexity to the disorder (Guitar, 2006). The feeling of guilt, shame, frustration, anxiety, and worry are common in PWS and can be as part of the disorder of stuttering as the speech behaviors (Guitar, 2006; Ward, 2006; Williams, 2006). Not surprisingly, stuttering often imposes limitations in the persons’ social, occupational, and educational experiences (Hayhow, Cray & Enderby, 2001; McClure & Yaruss, 2003; Yaruss & Quesal, 2004).
The impact that stuttering has on one’s life has been described in terms of impairment, disability, and handicap by Yaruss and Quesal (2004). The impairment of stuttering is the physical or psychological factors that lead to stuttering behaviors (e.g. speech disruptions). When stuttering imposes activity limitations it can be viewed as a disability. Finally, stuttering can become a handicap if it restricts the individual from fulfilling everyday needs, including economic, occupational, social, and educational needs. Thus, the characteristics and limitations caused by stuttering have it classified as a potential disability (Yaruss & Quesal, 2004). An important factor in overcoming stuttering is learning ways to accept and cope with the disorder (Plexico, Manning, & Leavitt, 2009b; Plexico, Manning, and Dillolo, 2005; Swartz, 2010).

The purpose of this literature review is to discuss past research related to acceptance of stuttering. The first part of the review will discuss literature related to acceptance of disability. The second part of the review will discuss the benefits of acceptance. Throughout this review, connections will be made to issues pertinent to PWS. The second part of the review will focus on variables that impact acceptance of disability and stuttering. Finally, a statement of the shortcomings of the present research exploring acceptance of stuttering and the purpose of the current research study will be discussed.

Acceptance of Disability

Dembo, Leviton, and Wright (1975) suggested that disability can be perceived as a misfortune or “value loss.” The principle of Dembo’s et al. (1975) work was the concept of acceptance of disability as “acceptance of loss.” The term “loss” refers to the absence of something valuable, giving way to personal misfortune. The term “acceptance” is viewing the value loss as non-devaluing (Wright, 1983). If perceived as a misfortune or loss, disability can lead to devaluation of existing abilities and possible devaluation of the person as a whole (Keany & Glueckauf, 1993). According to this widely accepted view of disability proposed by Dembo’s et al. (1975) model, acceptance of disability is an adjustment of a person’s value system such that their actual or perceived loss(es) do not negatively affect the value of existing abilities or the person as a whole (Keany & Glueckauf, 1993; Wright, 1983). By highlighting the individual’s attitudes toward disabilities as pivotal to acceptance of loss, Dembo et al. (1975) proposed four major changes in one’s
value system which must be met in order to prevent or reduce devaluation and lead to acceptance of disability: (1) enlarging of the scope of values, (2) subordinating physique relative to other values, (3) contenting disability effects, and (4) transforming comparative-status values into asset values.

**Enlargement of the Scope of Values**

Following a crisis period, people experience a period of mourning over the value believed to be lost. During this period of mourning, there occurs a narrowing of the persons’ overall perceptions and a heighten preoccupation with the lost value (Wright, 1983). During this period, the individual perceives no differences between personal aspects that are connected to the loss and areas that are not. The loss pervades all areas of the person’s life and causes pain, trouble, and/or distress. There is no definite time span to this period as it varies according to the individual. When preoccupation with loss is intense, the first value to emerge is “enlarging the scope of values” (Keany & Glueckauf, 1993; Wright, 1983). This value change is initiated when the person begins to emotionally appreciate the existence and importance of values other than those lost. This value change is the realization that not all is lost by disability and that there are other values not directly conflicted with the disability. Enlargement of the scope of values evolves as the individual finds meaning in events, abilities, and goals in life (Berglund, Mattiasson, & Nordstrom, 2003; Keany & Glueckauf, 1993; Wright, 1983).

**Subordinating Physique Relative to Other Values**

By enlarging one’s scope of values, the individual realizes that there are still values not affected by the disability which are worth living for. However, the person may still hold negative feelings about their loss either because of excessive value placed on physical and ability normalcy or because other values are given insufficient weight (Keany & Glueckauf, 1993; Wright, 1983). Societies’ emphasis on physical perfection, beauty, and ability may have been significantly heightened by the individual during the mourning period if these certain attributes are perceived as lost. Changing this value requires the devaluation of the damaged surface appearances and the increase in value of nonphysical attributes. This realization is facilitated once the
person is convinced that nonphysical values such as intelligence, kindness, effort, and cooperativeness are more important than physical attributes (Keany & Glueckauf, 1993; Wright, 1983). As this scope of value is broadened, emphasis on physique decreases and the person evaluates their self-worth by their nonphysical characteristic in addition to those related to physique (Keany & Glueckauf, 1993; Wright, 1983).

The disorder of stuttering is not composed of only physical factors, and may be considered to be an “invisible disorder” (Goffman, 1963). However, even though stuttering can be a concealable disorder for many PWS the person’s disability is exposed each time he or she speaks (Goffman, 1963). Once exposed, stuttering may become just as visible and attract as much attentions as physical impairments

**Containment of Disability Effects**

This value change emphasizes the need for people with disabilities to contain the spread effect. The spread effect, as introduced by Dembo et al. (1975), refers to the “power of a single characteristic to evoke inferences about a person” (as cited by Wright, 1983, p.32). Spread results in the disability affecting various aspects of life, making the disability globally debilitating. Spread can occur if the disability is seen as a personal characteristic. Wright (1983) explains that factors such as visibility, permanence, and attention of the disability, among other factors, can lead to the perception of a disability as a personal characteristic. If a disability is seen as a personal characteristic, the person and the characteristic become embedded, making the person conceptualized themselves as a “disabled person” (Keany & Glueckauf, 1993). This in turn can lead to a spread effect (Wright, 1983). Containment of disability effects is the extent to which a person does not expand the impact of their disability beyond other aspects of themselves (Berglund, Mattiasson, & Nordstrom; 2003). This value change can be reached by perceiving the disability not a personal characteristic, but as a possession. By perceiving the disability as a possession, the person and the disability are separated, not embedded. In this view, the person will identify themselves as a “person with disability” (Keany & Glueckauf, 1993). In this form of identification, the disability is presented and viewed as one of many aspects of a person. The outcome of this value change is that “not all of life is influenced, let alone, determined, by disability” (Wright, 1983, p.178).
Personal attributes (such as communication abilities, physical appearance, and intelligence) may carry status implications when individuals evaluate themselves. Status judgments often involve the comparison of the person to a standard along a scale of better or worse (Keany & Glueckauf, 1993). This type of status value is also referred to as comparative value since it involves the comparison of the value to a standard of presumed average. Another method of value evaluation is “asset evaluation.” In asset evaluation, attributes are not judged along a status dimension but are evaluated in terms of their usefulness and intrinsic values. This model of evaluation would allow an attribute to be seen as an asset, rather than being viewed as below standard as a comparative value (Keany & Glueckauf, 1993; Wright, 1983). An asset value has its focus on the quality of the object, ability, or individual and therefore cannot be devalued since it is not being compared to other objects, abilities, or individuals. For example, in an asset evaluation an augmentative-alternative communication device would be valued for its usefulness as a means of communication rather than devalued as a substandard form of communication. Comparative-status reflects a judgment of personal worth, which when negative, can become detrimental to the acceptance process (Berglund, Mattiasson, & Nordstrom, 2003; Keany & Glueckauf, 1993; Wright, 1983). The goal of this value change is for an individual with a disability to shift from comparative-status values to status value. This shift will limit or diminish the comparison of areas affected by a disability as areas of limitations, but rather emphasize their own asset and abilities (Berglund, Mattiasson, & Nordstrom, 2003; Keany & Glueckauf, 1993; Wright, 1983).

It is proposed that the four value changes described above will lead to accepting a disability as non-devaluing by eliminating or diminishing the overgeneralization of disability effects and negative self-concept caused by disability and enabling individuals with disabilities to appreciate their attributes rather than idolize standards presumed to be normal. The disability may still be perceived as inconvenient, limiting, and inadequate, but the person will not feel inferior or shameful because of it (Wright, 1983).
The validation that a person whose scope of values has been enlarged, who has shifted the relative importance of values, who has contained disability effects, and who has come to evaluate personal characteristics as asset values will be rated higher in self-accepting and mental health scales has been shown in several research studies (Hienmann & Shontz, 1984; Li & Moore, 1998; Keany & Glueckauf, 1993; Linkowski & Dunn, 1974; Starr & Heiserman, 1977; Patrick, 1984; Wright, 1983). A study conducted by Linkowski and Dunn (1974) involving college students with disabilities found correlations between acceptance of disability, self-esteem, and satisfaction with social relationships; indicating the asset value of self-esteem, defined as feeling good about oneself, not based on others.

In another study involving individuals with disabilities, Butts and Shontz (1962) found that comparative-status evaluation of everyday life situations decreased significantly as coping effectiveness increased. Furthermore, Grand (1972) found that individuals who accepted their disabilities were less anxious about being negatively judged by others. These findings described the value change of asset value, feeling good about one self independently of external opinions and comparison. Numerous other studies have highlighted the existence of other value changes, including the spread effect, physical perception, and containment of disability effects (Butts and Shontz, 1983; Dion, Berscheid, & Walster, 1972; English & Oberle, 1971; Sieka, 1974; Shontz, 1984). The Acceptance of Disability Scale (ADS) developed by Linkowski (1971) employs the measures of acceptance of disability based the four value changes associated with the acceptance of loss theory. The use of the ADS in research studies have demonstrated evidence that adjustment is related to value changes in acceptance of disability (Wright, 1983).

Value change as a result of acceptance has also been reported for PWS. Plexico et al. (2009a) analyzed the successful stuttering management process of 7 AWS and found that as the participants became more accepting of stuttering they demonstrated the four value changes proposed by Dembo et al. (1975). Plexico et al. reported that “participants began to develop a broader self-concept that encompassed attributes unrelated to stuttering,” indicating enlargement of scope and subordinating the physique (stuttering behavior) relative to other values. Participants also began “viewing stuttering as a characteristics rather than the
defining aspect of the self,” indicating containment of disability effects; and the participants who were more accepting of their stuttering were “more likely to describe the positive aspects of being a PWS,” suggesting that stuttering was viewed as an asset value. The connections between the value changes and heighten acceptance of stuttering demonstrated by the participants suggests that the value changes proposed by Dembo et al. (1975) can also lead to acceptance of stuttering.

Benefits of Acceptance of Disability

Studies which focus on acceptance of disabilities have found numerous associations between acceptance, better health outcomes, and higher quality of life (Harrison, Stuifbergen, Adachi & Becker, 2004). Chen and Crewe (2009) investigated the life satisfaction among 218 individuals with the progressive disorder of multiple sclerosis. Chen and Crewe found a significant association between acceptance of disability and life satisfaction. Similarly, a study involving acceptance of disability among persons with insulin dependent diabetes reported that high acceptance scores were related to better coping scores and better metabolic scores (Richardson, Ander & Nordstrom, 2001). Additionally, in a large sample study involving over a thousand individuals with disabilities, Li and Moore (1998) found high acceptance of disability to be correlated with higher self-esteem.

When the disability is stuttering, a chronic disorder, acceptance of stuttering has been suggested as being positive in coping with stuttering, improving the therapy process, and decreasing stressors (Plexico, Manning & DiLollo, 2004; Plexico, Manning & DiLollo, 2009b; Swartz, 2010). In a qualitative study completed by Plexico et al. (2004), self-acceptance was identified as a major recurring theme of successful management of stuttering. When one accepts oneself, he or she accepts all characteristics and attributes which compose the self. Therefore, if a PWS is self-accepting, they accept their disability, stuttering, as well. Self-acceptance was also a major recurring theme in Wingate’s (1964) study which analyzed reports from 50 people who stutter on factors associated with successful stuttering recovery.
Acceptance of stuttering seems to be crucial to successful stuttering management. Plexico et al. (2009a) suggested that a PWS must first accept their stuttering before approaching stuttering treatment. Plexico et al. (2009b) explained that by accepting stuttering, the individual will be able to reduce or eliminate their approach-avoidance behaviors. Also, acceptance of stuttering has the potential to reduce the stress associated with hiding stuttering and the pressure of always being “fluent.” The individual will, therefore, be able to approach stuttering in a positive, non-devaluing manner (Plexico et al. 2009a; Plexico et al. 2009b; Swartz, 2010). Another positive result of accepting stuttering is that the individual may be more willing to use stuttering modification techniques (Van Riper, 1992). Stuttering modification techniques, which include eliminating escape or avoidance behaviors, can also help one to improve speech fluency (Manning, 2001). Furthermore, these techniques may reduce physical tensions associated with stuttering, since the PWS is more willing to stutter without trying to escape, avoid, or use secondary behaviors to avoid or delay stuttering (Sheehan, 1979; Van Riper, 1992).

Variables Affecting Acceptance of Disability

Demographics

Several studies which explored acceptance of disability have collected data on participants’ demographics, and sought to explore relationships between demographic data and acceptance of disability. The types of demographic questions explored have varied greatly. Common demographic questions include: age, race, income, employment, marital status, and education. In a large cross-sectional study (N=1266) of individuals with a variety of disabilities, Li and Moore (1998) found acceptance of disability to have a significant correlation with younger age, being married, and higher family income. Other studies have found similar relationships with age (Heinemann, Bulka, & Smetak, 1988) and marriage (Harrison et. al, 2004). In contrasts, Joiner, Lovett, and Goodwin (1989) found divorced individuals to be more accepting while Richardson, Ander, and Nordstrom (2001) found older individuals to be more accepting.
Though no studies have explored the direct relationship between important demographic characteristics and acceptance of stuttering, there is some evidence that support the importance of age and relationships on acceptance of stuttering. In a study involving in-depth interviews of 6 AWS, Plexico, Manning, and DiLollo (2004) found that older participants, over the age of 30, demonstrated higher acceptance of stuttering. These results supports Wright’s (1983) suggestion that acceptance of disability is greater among individuals with more life and therapeutic experiences. Establishing and maintaining a romantic relationship may be difficult for PWS. In a survey study involving 132 college students, conducted by Mayo and Mayo (2010), only 30% of participants stated they would date a PWS. Moreover, PWS are rated an unsuitable marriage partners and have diminished opportunities for successful long-term romantic relationships (Shears & Jensema, 1969; Zhang, Saltuklaroglu, Hough, & Kalinowski, 2009). It can be hypothesized that these issues may impact how a person who stutters accepts their stuttering.

Other studies have explored the relationship between variables related to employment and acceptance of disability. Berglund, Mattiasson, and Nordstrom (2003) studied the acceptance of disability of 105 individuals with Ehlers-Danlos syndrome, a connective tissue disorder. The authors found a significant positive correlation between being employed and reported acceptance of disability. In another study, similar findings were reported by Richard, Adner, and Nordstrom (2001) with persons with insulin-dependent diabetes mellitus. For PWS, employment may present a problem as studies have suggested greater difficulty for PWS to pursue, become employed, and advance in their desired occupation (Crichton-Smith, 2002; Hayhow, Cray & Enderby, 2001; Klompas & Ross, 2004). In a study examining the impact of stuttering on 332 AWS, 52% participants indicated that stuttering had affected their occupational choice by either not choosing their preferred career choice, avoiding job interviews, and/or not being promoted (Hayhow, Cray & Enderby, 2001). It can be hypothesized that employment issues might impact reports of acceptance of stuttering.

Joiner et al. (1989) conducted a study involving 160 disabled adults with various disabilities (cardiovascular disease, spinal cord injured, neurologic, orthopedic, visually impaired, hearing impaired,
substance abusers, and cognitive delayed individuals) and found that Caucasians with disabilities are more accepting of their disability than African-Americans. These findings do not support Li and Moore’s (1998) study which indicated Caucasians to have the lowest acceptance of disability out of any racial and ethical group. Very little research has explored the role of ethnicity in acceptance of stuttering, thus it is difficult to speculate at this time whether ethnicity would impact acceptance of stuttering.

Richard et al. (2001) found that increased education (university degrees or upper secondary school certificates) to be positively correlated with higher levels of acceptance of disability. Likewise, Chao and colleagues (2010) found a correlation between lower levels of education and non-acceptance of disability. It has been widely reported that stuttering may impact ones’ academic performance and pursuit of higher education. Klompas and Ross (2004) explored the life experiences of 16 South African adults who stutter and the impact of stuttering in their life. Ten of the participants (62.5%) reported that stuttering negatively impacted their academic performance. Similarly, 81% of the 332 participants in Hayhow, Cray, and Enderby (2001) study involving AWS reported that stuttering affected their school performance. Academic performance was also found to be negatively impacted by stuttering in Crichton-Smith’s (2002) study. According to Van Riper (1971), many PWS may strive for lower levels of achievement than their normally speaking colleagues as a result of their communication impairment. Given this evidence, it can be expected that education will play a role in acceptance of stuttering.

Correlation between severity of disability and acceptance of disability has seldom been researched. However, research in the area of stuttering has found correlations between severity of stuttering and acceptance of disability (Swartz, 2010), quality of life, (Bramlett, Bothe, & Franic, 2006; Craig, Blumgart, & Tran, 2009) and negative perceptions (Collins & Blood, 1988; Gabel, 2006; Susca & Healey, 2002; Turnbaugh, Guitar, & Hoffman, 1979). In a Doctoral dissertation aiming to provide a comprehensive view of how PWS cope with stuttering, Swartz (2010) surveyed 68 adults who stutter utilizing a variety of qualitative and quantitative questionnaires. A significant correlation was found between mild stuttering severity, acceptance of stuttering, and coping. In other words, the participants who reported having less severe
stuttering reported higher acceptance of stuttering and coping better with stuttering than participants who reported more severe stuttering. Severity of stuttering has also been found to be correlated with lower quality of life. Craig et al. (2009) investigated the possible effects of stuttering on quality of life by interviewing and utilizing the Medical Outcomes Study Short Form-36 questioner on 200 PWS. The results suggested that people who stutter with increased levels of severity had a higher risk of poor emotional functioning.

Studies involving perceptions of PWS have found a strong positive correlation between stuttering severity and reports of negative attributes by people who do not stutter. For example, Susca and Healey (2002) explore the attitudes and perceptions of 60 listeners towards different levels of stuttering and fluency. A speech sample was digitally modified to contain 3 different stuttering frequencies (15%, 5%, and 0%). The participants were divided into 3 groups and each group listened to 1 sample from the 3 levels of disfluencies. The participants were interviewed following the speech samples. Listeners reported more negative reports towards the sample that contained more stuttering than the samples which contained less stuttering. In another study involving stuttering severity and attitudes, Gabel (2006) surveyed 260 university students in order to investigate the relationships between stuttering severity, speech therapy, and attitudes towards PWS. The results suggested that university students perceived severe stuttering more negatively than mild stuttering. Similar results from these studies have been found in Collins and Blood (1988) and Turnbaugh et al. (1979).

**Effects of Therapy**

The large majority of adults who stutter have struggled with this communication disorder for several years (Guitar, 2006). Stuttering often affects one’s daily lives and leads PWS to seek speech therapy or other intervention approaches on more than once occasion (Hayhow, Cray & Enderby, 2002). The correlation between stuttering intervention and acceptance of stuttering has not been studied in depth. However, stuttering therapy has been found to lead to better management of stuttering and better coping of stuttering (Guitar, 2006; Hayhow, Cray & Enderby, 2001; Plexico, Manning, & DiLollo, 2009b; Swartz, 2010).
There are many stuttering intervention approaches which have reported improvements in one’s management and adjustment to stuttering (Guitar, 2006). Hayhow, Cray, and Enderby (2002) surveyed 332 PWS regarding their views of stuttering and stuttering intervention. The majority of the participants indicated benefiting from speech therapy. The leading intervention methods used were rate control approach (fluency shaping) and block modification (stuttering modification). Half of the participants’ tried alternative remedies, with hypnotherapy being the most popular. Hypnotherapy was found to have little benefit to the majority of the participations.

PWS cope better with stuttering by having successful therapy (Swartz, 2010). Swartz (2010) analyzed how adults who stutter (AWS) cope with stuttering by surveying 68 AWS. The author reported that the majority of participants indicated having successful speech therapy. The most effective therapy approaches reported by the participants were stuttering modification, fluency shaping, and a mixed approach. The results from Swartz’s (2010) supported the findings that any approach can be effective when the client commits to the therapy approach (Anderson & Felsenfeld, 2003; Crichton-Smith, 2002; Plexico et al., 2005). One can speculate that if stuttering intervention leads to better management and coping of stuttering, then if may also lead to improved acceptance of stuttering.

*Self-esteem*

Feeling good about the self, or self-esteem, has been found to be an important factor in acceptance of disability (Wright, 1983). According to Wright (1983) an attribute, such as a disability, has the potential to greatly influence self-esteem depending on (1) the closer the connection between the attribute and the self-core (self-perception) and; (2) the higher the status value the attribute possesses. Therefore, if the attribute is positively evaluated it has the potential to elevate self-perception and status-value gradient, and thus increase self-esteem.

In a multi-stage study involving 55 college students with disabilities, Linkowski and Dunn (1974), found a significant correlation between acceptance of disability and self-esteem. Similarly, self-esteem was
found to have the strongest positive correlation with acceptance of disability in the large, multi disability, study by Li and Moore (1998). Self-esteem was also found to have a strong relationship with acceptance of disability in African-Americans with a variety of disabilities (Belgrave, 1991), adults with facial disfigurements (Seika, 1974), and in teenagers with oral-facial clefts (Starr & Heiserman, 1977).

It has been widely reported that stuttering can have a negative impact on self-esteem. Crichton-Smith (2002) explored the communication experiences of 14 adults who stutter during in-depth interviews. Thirteen participants (81%) indicated that stuttering had a profound negative impact on their self-esteem. Likewise, Corcoran and Stewart’s (1998) study of adults who stutter indicated that 83% of participants suffered from negative self-esteem. The negative impact of stuttering on self-esteem has been supported by Daniels, Hagstrom and Gabel (2006) and Klompas and Ross (2004). Contradicting findings have also been found by Blood, Blood, Tellis, and Gabel (2003), who examined the self-esteem of 48 adolescents who stuttered. All but 7 of the participants (85%) scored below 1 standard deviation from the mean on a standardized measure of self-esteem, suggesting that most adolescents who stutter report a positive self-esteem. The results found have been supported by other similar studies (Blood & Blood, 2004; Blood, Blood, Tellis & Gabel, 2001; Yovetich, Leschied & Flicht, 2000). The conflicting findings make the prediction of the effect of self-esteem on acceptance of stuttering impossible.

Emotional support

Emotional support can be described as the act of being cared for and loved, valued, and esteemed (McColl, 1995). Emotional support has been found to be an important component in the rehabilitation process (Isaksson, Lexell, & Skar, 2007; Li & Moore, 1998, Tzonichaki & Kleftaras, 2002). Emotional support has also been positively associated with wellness, better quality of life, and better psychosocial outcome (Hale, Hunnum & Espelage, 2005; Schulz & Decker, 1985; Kef, 2002). Emotional support has also been positively associated with acceptance of disability as shown in Li & Moore’s (1998) study involving 1266 individuals with disability and in Belgrave’s (1991) study involving African-Americans with disabilities.
Several approaches to treatment of stuttering encourage involving of family members, significant others, and peers (Guitar, 2006; Guitar & McCauley, 2010). The participation of family and friends, especially spouses and children, are extremely beneficial for adjustment of a disability (Shulz & Decker, 1985). In a study by Klompas and Ross (2004), involving South Africans who stutter, the majority of the participants expressed that although stuttering negatively impacted their relationships with teachers and classmates, it did not negatively impact their relationship with parents, spouse, children, or the ability to establish friendships. In fact, a spouse’s acceptance of one’s stuttering can lead to an improved self-image which may promote value changes (Anthony, 1993; Swartz, 2010, Wright, 1985).

**Perceived Discrimination**

Perceived discrimination is the behavioral manifestation of a negative attitude, judgment, or unfair treatment toward members of a group (Pacoe & Richman, 2009). Although perceived discrimination is not an objective observation, it is based on self-report of life events which, nevertheless, are felt by the individual and therefore seem as a discriminatory act (Pacoe & Richman, 2009; Williams, Neighbors & Jackson, 2003). The more individuals believe they will be discriminated against, the more reluctant they will be to interact with others. This belief may encourage the individual to keep their therapy a secret, keep their disability a secret, and to withdraw from social interactions they perceived to be potentially rejecting. Such strategies may negatively impact one’s education, profession, social networks, and self-esteem (Link et al., 1989). Numerous studies have found harmful effects of perceived discrimination on mental and physical health (Link et al., 1989; Kessler, Mickelson & Williams, 1999; Pacoe & Richman, 2009).

In a meta-analytic review of 107 studies on perceived discrimination and health, Pascoe and Richman (2009) found that higher levels of discrimination were related to a variety of negative mental status, including self-esteem, self-perception, and acceptance of disability. In another study, after surveying 78 persons with spinal cord dysfunctions, Graf, Marini, and Blankernship (2009) found “being mistreated by others” to be major theme among almost 27% of the respondents. Furthermore, Li and Moore (1998)
surveyed 1,266 adults with disabilities and found that participants were less likely to accept their disability if they reported high levels of perceived discrimination.

Minorities and marginalized groups, such as people with disabilities, have a greater chance of being discriminated against due to the negative stereotypes opposed against them by society (Smart, 2001). Similarly to many other disabilities, PWS are perceived negatively by many groups of individuals. These groups include speech-language pathologists (Cooper & Cooper, 1996; Cooper & Rustin, 1985; Lass et al., 1989; Turnbaugh, Guitar & Hoffman, 1979), teachers (Crowe & Cooper, 1977; Crowe & Walton, 1981; Lass, et al., 1992), students (Ruscello, Lass, & Brown, 1988; St. Louis & Lass, 1981; White & Collins, 1984), parents (Crowe & Cooper, 1977; Fowlie & Cooper, 1978; Woods & Williams, 1976), and employers (Hurst & Cooper, 1983). With so many groups perceiving individuals who stutter negatively, it is very likely that perceived discrimination is not uncommon among PWS.

Support Groups

Support groups are formed by individuals who come together for mutual assistance in addressing a common need, overcoming a handicap, or a life-disrupting problem, and bringing about a desired social change and/or self-change (Katz & Bender, 1976; Ramig, 1993). Currently, there are hundreds of thousands of support groups in the United States addressing a variety of problems, including stuttering (Ramig, 1993). It has been suggested that support groups for PWS provide positive benefits for individuals who stutter, including greater acceptance of stuttering (Ramig, 1993; Yaruss, Quesal, Reeves, et al. 2002). Yaruss et al. (2002) surveyed 71 PWS about their experience with support groups and stuttering therapy. The vast majority (94%) of the participants indicated that support groups positively affected their self-image and self-acceptance. The results from this study indicated that PWS who participate in support groups for stuttering experience a heighten self-perception (self-esteem) and self-acceptance (acceptance of being a PWS).

In another study, Gathman (1986) surveyed and interviewed four individuals who stutter in an attempt to analyze behavior change as a result of affiliating with support groups for PWS. All participants reported
that participating in support groups improved their self-concept, enhanced their social life, and increased acceptance of themselves as a person who stutters (Gathman, 1986 as cited by Raming, 1993). In a similar study, Ramig (1993) surveyed 62 adults who stutter to investigate the overall usefulness of support groups for PWS. The majority of the participants, 52 out of 62 (84%), indicated that support groups helped them feel better about themselves. Additionally, 49 of the 62 (79%) participants indicated that their fluency had improved as a direct result of attending a support group. As indicated, research which has analyzed the impact of support groups has suggested benefits in the areas of self-concept, acceptance of stuttering, and fluency (Ramig, 1993). Although limited, research on support groups for stuttering suggests a correlation between participation in support groups and acceptance of stuttering.

Hostility

Hostility, the expression of anger or opposition, has seldom been researched as a topic of acceptance of disability. Although it is known that feelings of anger are often experienced in the rehabilitation process, knowledge on its affect on acceptance is limited (Wright, 1983). Treharne et al. (2004) explored the reactions to disability of 118 participants with rheumatoid arthritis. The purpose of the study was to analyze if the participants reactions were related to age, physical functioning, acceptance of illness, or self-efficacy. The results indicated a significant negative correlation of acceptance of illness and hostility. In other words, individuals who were less hostile were more accepting of their illness. Similarly, Li and Moore (1998) found less hostility to be associated with greater acceptance of disability.

Acceptance of stuttering and hostility has not yet been research. However, PWS often report that stuttering evokes negative emotions, such as frustration and anger (Kompas & Ross, 2004). With stuttering being a disability, it is fair to assume that hostility may affect acceptance of stuttering similarly to acceptance of other disabilities.
Statement of the Problem

Stuttering is a complex communication disorder which affects over 3 million people in the United States (Guitar, 2006). Research indicates that stuttering can negatively affect nearly all parts of a person’s life, including personal, occupational, educational, and social relationships (Hayhow, Cray & Enderby, 2001; McClure & Yaruss, 2003; Yaruss & Quesal, 2004). For individuals who continue to stutter into adulthood, the likelihood of full recovery is improbable (Guitar, 2006). As a chronic disorder stuttering can be a potentially debilitating disorder, and has been classified as a potential disability (Yaruss & Quesal, 2004; World Health Organization, 2001). Studies on individuals with disabilities have suggested that acceptance of disability is an important aspect in improving rehabilitation and quality of life (Marinelli & Dell Orto, 1984, Swartz, 2010). Furthermore, it has been suggested by several studies that acceptance of disability is associated with high self-esteem (Li & Moore, 1998; Heinemann & Shontz, 1982; Linkowski & Dunn, 1974), better coping with the disorder (Plexico, Manning & DiLollo; 2004; Plexico, Manning & DiLollo; 2009; Swartz, 2010) and greater life satisfaction (Chen & Crewe 2009). However, very few studies have focused on acceptance of stuttering.

Purpose of the Present Study

Although acceptance of disabilities has been widely studied, to date, no quantitative studies have focused on the acceptance of stuttering. The purpose of this study was to provide increased understanding of acceptance of stuttering and what factors affect acceptance. In this study, the relationships between the acceptance of stuttering and 1) psychosocial factors (self-esteem, hostility, emotional support, and discrimination); 2) treatment history (support group participation, treatment duration, treatment type, perceived therapy success); and 3) demographic characteristics (gender, age, race, education, occupation, income, and self-rating of stuttering severity) were explored.

The research questions that will guide this study are:
1) What are the correlations between reported acceptance of stuttering and reported self-esteem, perceived discrimination, emotional support and hostility?

2) Does attending speech therapy, the type of therapy received, perceived success of therapy outcome, and support group participation effect reports of acceptance of stuttering?

3) Does age, gender, ethnicity, marital status, income, education, severity of stuttering affect reports acceptance of stuttering?
CHAPTER II: METHODS

Survey Instrument

The data from this study was collected through an electronic survey (Appendix A-H) using the web-based software program “SurveyMonkey. The electronic survey contained 6 pages. The initial page (Appendix A) of the survey was the informed consent form. The second page of the survey gathered information on the participants’ demographics, stuttering history, participation in support groups, and therapy history. The demographics section (Appendix B) included questions about the participants’ age, gender, ethnicity, marital status, employment status, occupation, and income. Open text boxes were available for age and occupation. The remaining items included closed responses; the response choices were: a) gender: male, female, other; b) ethnicity: American Indian or Alaska Native, Asian, Black or African-American, Hispanic or Latino, Native Hawaiian or other Pacific Islander, White, other; c) marital status: married, single, divorced, widowed, separated, partnership, other; d) education: grammar school, high school or equivalent, vocational/technical school, some college, Bachelor’s degree, Master’s degree, Doctoral degree, Professional degree; e) employment: full-time, part-time, student, retired, homemaker, temporarily unemployed, permanently unemployed; f) income: less than $10,000, $10,000-$19,999, $20,000 --$39,999, $40,000-$59,999, $60,000-$79,999, $80,000-$99,999, $100,000-$150,000, $150,000 or more. Furthermore, during data analysis, participants’ responses for ethnicity were divided into white or non-white, marital status was divided into married or non-married, and employment was divided into full-time or not full-time.

The stuttering history section (Appendix C) of the survey included questions about being a PWS, stuttering severity, and age of onset of stuttering. Age of onset of stuttering included the options of “0-3,” “3-5,” “5-8,””8-12,” and “after 12,”; being a person who stutters included “yes” or “no” response choices, and stuttering severity responses included “ no stuttering”, “mild”, “moderate,” or “severe.”During data analysis, stuttering severity was divided into two groups: “no-stuttering/mild stuttering” and “moderate/severe stuttering.” In the last section of page 2, participants were asked about their participation in support groups for people who stutter, participation in speech therapy for stuttering in the present and past, therapy duration,
perceived success of therapy in general and of specific therapy approaches (Appendix D). Specific therapy approaches included stuttering modification, fluency shaping, mixed approach, assistive devices, counseling, and drug therapy. An open box response was provided for therapy duration, yes/no responses were provide for current and past participation in therapy and support group participation, the multiple choice responses “successful”, “not successful,” or “N/A” were possible responses for perceived success of therapy outcome in general and of specific intervention approaches.

On the third page of the electronic survey participants were asked to complete a shorter and modified version of the Acceptance of Disability Scale (ADS) (Appendix E) called the Acceptance of Disability Scale Modified (ADM scale) (Li & Moore, 1998). The ADM scale has been reported to have acceptable inter-item reliability and modifications to the ADS have been used with success in several other studies (Li & Moore, 1998; Sample, Li, & Moore, 1997; Richardson, Adner, & Norstrom, 2000). In this study, the term “disability” was replaced by “stuttering” (e.g. “my disability has disrupted my life greatly,” to “stuttering has disrupted my life greatly”). Similar modification to the ADS have been made by Richardson, Adner, and Nordstrom (2000) who substituted the term “disability” in the ADM scale items to more appropriate terms for the population being researched. This ADM scaled used in this study utilized a 5-point-Likert-type scale, with responses ranging from 1 (strongly agree) to 5 (strongly disagree). The responses to the 10 items formed a 50-point scale in which, after reversing items 3, 5, 8, 6, 9, and 10 during the analysis of the scale, the higher number for each item indicates higher levels of acceptance.

The fourth page of the survey included questions analyzing perceived discrimination of PWS (Appendix F). The 4 items used in this instrument were adapted by Li and Moore (1998) from a 12-item instrument developed by Link et al. (1989) to assess the belief of discrimination against one-self. Once again, these scales were adapted by replacing the term “disability” with “stuttering.” The responses to the items ranged from 1 (strongly agree) to 6 (strongly disagree). Higher scores on the scale indicated greater discrimination as perceived by the participant.
On the fifth page of the survey, hostility was measured by a 5 item instrument (Appendix G). The hostility scale utilized in this study was developed by Li and Moore (1998). Li and Moore (1998) adapted the scale from a form created by Knight, Holcom, and Simpson (1994). The adaptation of the scale consisted of reducing the number of items from 8 to 5, while keeping the wording of the items the same. The responses to the items were in a 5-point-Likert-type scale, ranging from 1 (never) to 5 (almost always). The Cronbach’s alpha coefficient for this scale was .79, indicating acceptable reliability (Li & Moore, 1998). Higher scores on this scale suggest greater hostility.

The sixth, and last, page of the survey included a self-esteem scale (items 1-5) and an emotional support scale (items 7 & 8) (Appendix H). Both of the scales were developed by Li and Moore (1998). The self-esteem scale was adapted from the Self Rating Form, created by Knight, Holcom, and Simpson (1994). The adaptation consisted of making the scale shorter by eliminating one item. The five item scale used to measure self-esteem was found to have a Cronbach’s alpha coefficient of .84 (Li & Moore, 1998), indicating acceptable reliability. This 5-point-Likert-type scale ranged from 1 (never) to 5 (almost always) with higher score indicating greater high self-esteem. The final questionnaire explored the extent to which participants received emotional support from their families and friends. Two items were used with the possible answers ranging from 1 (none) to 4 (a great deal). A high score on these questions suggests strong emotional support received from friends and family.

Participants

The participants in this study were recruited in two ways. First, members of the Board Recognized Specialists in Fluency Disorders (BRSFD) were contacted via email and asked for their support in recruiting potential participants (Appendix I). The BRS-FD members were asked to reply to the email if interested and willing to identify participants that might be recruited. If the professional was willing to aid in recruitment process, he or she was sent a follow-up email containing an informed consent form and a link to the electronic survey (Appendix J). The professionals were asked to forward the email to adults, over the age of 18, who stutter. Professionals who stutter were encouraged to participate in the study as well.
Second, members of the National Stuttering Association (NSA) were recruited to participate in this study. Once the present study was approved by the research committee of the NSA (Appendix K), a mass recruitment email was sent to all members of the NSA (Appendix L). The email contained information about the study, potential risks of the study, informed consent form, and a link to the electronic survey. By completing and submitting the survey the participants indicated their consent to participate in the study.

Ninety-seven individuals accessed the electronic survey on “SurveyMonkey.” However, 17 out of the 97 surveys were discarded due to participants being (1) under the age of 18; (2) never being a PWS, or; (3) not entirely completing the questionnaires. The final sample of the research study included 80 participants. Since the recruitment process included the forwarding of emails by BRSFD and the NSA, it is not possible to have an accurate count on the number of surveys sent. Therefore, reporting a percentage return rate is not possible for this study. Demographic information, aside from the data related to support groups and therapy, about the participants is summarized in Table 1.

Data Analysis

Descriptive statistics (frequencies, means, and standard deviations) were calculated for all analysis. To answer research questions 1, which explored acceptance of stuttering and self-esteem, perceived discrimination, hostility, and emotional support, Pearson Product Moment Correlations (PPMCs) were calculated between total acceptance of stuttering scores and total scores for the self-esteem, perceived discrimination, emotional support, and hostility scales. To answer research question 2, which explore acceptance of stuttering and speech therapy participation, duration, perceived success, and support group participation, a series of t-tests were conducted to identify potential effects of support group participation and different therapies on the total scores reported for the acceptance of stuttering scale. To answer question 3, which explore the effect of age, gender, ethnicity, marital status, income, education, severity of stuttering on acceptance of stuttering, PPCMs were calculated to identify possible relationship between age and total scores on the acceptance with stuttering scale. A t-test was completed to identify the effect of stuttering severity on acceptance of stuttering. Multivariate Analysis of Variance (MANOVA) was completed to
explore the impact of personal characteristics (gender, race, ethnicity, marital status, income, education, and severity of stuttering) and the interaction of these characteristics on acceptance of disability. Finally, a MANOVA was completed to identify the effects of demographic characteristics related to employment (full-time, not full-time employed) and education (see table 1), and the interaction of these factors on acceptance of disability.
Table 1-

Summary of Demographic Data.

<table>
<thead>
<tr>
<th>Item</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of Participants</td>
<td>Mean= 40; Range18-78; Standard Deviation= 14.65</td>
</tr>
<tr>
<td>Gender</td>
<td>Male= 50 (62.5%); Female=30 (37.5%)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>White= 60(75%); Asian= 5(6.3%); African-American= 11(13.8%); Hispanic/Latino= 2(2.5%); Other= 2(2.5%)</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Married= 46(57.5%); Separated= 1(1.3%); Single= 28(35%); Divorced= 5(6.3%)</td>
</tr>
<tr>
<td>Education</td>
<td>Professional degree= 7(8.8%); Bachelor’s degree= 22(27.5%); Doctoral degree= 11(13.8%); Some college= 5(6.3%); Masters degree= 31(38.8%); High school= 4(5%)</td>
</tr>
<tr>
<td>Employment Status</td>
<td>Full-time= 52(65%); Retired= 3(3.8%); Part-time= 4(5%); Temporarily Unemployed= 7(8.8%); Student= 13(16.3%); Homemaker= 1(1.3%)</td>
</tr>
<tr>
<td>Occupation</td>
<td>Multiple responses were provided</td>
</tr>
<tr>
<td>Salary</td>
<td>Less than $10,000= 13(16.3%); $10,000-$19,999= 5(6.3%); $20,000-$39,999= 7(8.8%); $40,000-$59,999=17(21.3%); $60,000-$79,999= 10(12.5%); $80,000-$99,999= 7(8.8%); $100,000-$150,00= 11(13.8%); $150,000 or more= 4(5%)</td>
</tr>
<tr>
<td>Stuttering Severity</td>
<td>No stuttering=2; Mild= 36(45%); Moderate= 38(47.5%); Severe= 4(5%)</td>
</tr>
<tr>
<td>Age of Stuttering Onset</td>
<td>0-3= 24(30%); 3-5= 28(35%); 5-8= 20(25%); 8-12= 4(5%); After 12= 4(5%)</td>
</tr>
</tbody>
</table>
CHAPTER III: RESULTS

Research Question 1: What are the correlations between acceptance of stuttering self-esteem, perceived discrimination, emotional support, and hostility?

Acceptance of Stuttering

Individual responses to each of the items related to acceptance of stuttering were calculated. Table 2 summarizes this data. For item 1, “stuttering prevents me from doing what I want,” 47% of those surveyed disagreed or strongly disagreed with this item, while 34% agreed or strongly agreed. For item 2, “stuttering affects those aspects of my life that I care most about,” 54% of the sample agreed or strongly agreed with this item and 29% disagreed or strongly disagreed with this item. The third item asked participants to report their agreement with the statement: “a person who stutters is no different than anyone else.” Forty-seven percent of the sample agreed or strongly agreed with this statement and 40% disagreed or strongly disagreed with this statement. For item 4, “stuttering is so overwhelming to me that I cannot enjoy anything,” 89% of the sample disagreed or strongly disagreed with this statement and only 8% agreed or strongly agreed with this item. The fifth item directed participants to report their agreement with the statement: “it is important for me to accept myself as I am.” Eighty-seven percent of the sample strongly agree or agreed with the item and 10% of the sample disagreed or strongly disagreed with this item. For item 6, “I feel I am able to offer a lot to other people,” 86% of the sample agreed or strongly agreed, while 5% of the sample disagreed or strongly disagreed with this item. The seventh item asked participants to share their agreement with the statement: “stuttering has disrupted my life greatly.” Thirty-three percent of the participants reported that they agreed or strongly agreed with this statement and 35% of participants reported that they disagreed or strongly disagreed with this statement. For item 8, “stuttering does not interfere with achieving what I want to do,” 53% of the sample agreed or strongly agreed with this item and 30% disagreed or strongly disagreed with this item. Item 9 asked participants to report their agreement with the statement: “I feel OK about talking about my stuttering with others.” Sixty-eight percent of the participants agreed or strongly agreed with this item and 20% disagreed or strongly disagreed with this item. The tenth item asked participants to report their
agreement with the statement: “a person who stutters can enjoy many things in life.” Eighty-seven percent of the participants reported that they agreed or strongly agreed with this item, while 4% disagreed or strongly disagreed with this item.

These scales were each adjusted such that the higher number was equated with a more positive response and following this adjustment, total scores for the scale were calculated. This method is similar to what was done in a study by Li and Moore (1998), using the original version of this scale. From this data, it was found that a total score of 29 and below were judged to reflect a “low acceptance,” similar to what has been used in past research. Scores in the range of 30-39 were judged to reflect “some acceptance” and scores of 40 and above reflected “high acceptance.” Nine participants (11% of the sample) reported a low acceptance with stuttering, 36 participants (45% of the sample) reported some acceptance with stuttering, and 35 participants (44% of the sample) reported a high acceptance of stuttering. This total score was used in all statistical correlations and comparisons discussed later in the results section.
Table 2

*Responses to items related to acceptance of stuttering.*

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Agree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>Strongly Disagree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stuttering prevents me from doing things I want.</td>
<td>10</td>
<td>17</td>
<td>16</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>2. Stuttering affects those aspects of my life that I care most about.</td>
<td>9</td>
<td>14</td>
<td>14</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>3. A person who stutters is no different from anyone else.</td>
<td>24</td>
<td>13</td>
<td>11</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>4. Stuttering is so overwhelming to me that I cannot enjoy anything.</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>24</td>
<td>47</td>
</tr>
<tr>
<td>5. It is important for me to accept myself as I am.</td>
<td>53</td>
<td>16</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>6. I feel I am able to offer a lot to other people.</td>
<td>50</td>
<td>19</td>
<td>7</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>7. Stuttering has disrupted my life greatly.</td>
<td>13</td>
<td>14</td>
<td>25</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>8. Stuttering does not interfere with achieving what I want to do.</td>
<td>22</td>
<td>20</td>
<td>14</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>9. I feel OK about talking about my stuttering with others.</td>
<td>32</td>
<td>22</td>
<td>10</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>10. A person who stutters can enjoy many things in life.</td>
<td>55</td>
<td>13</td>
<td>9</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Perceived Discrimination

Perceived discrimination was assessed using four items. The participants’ responses are summarized in Table 3. For item 1, “most people would be willing to accept a person who stutters as a close friend,” 90% of the participants provided a report on the positive side of the scale (a 1, 2, or 3), suggesting agreement to strong agreement with this item. Ten percent of the participants reported a 4, 5, and 6 n the scale, suggesting disagreement with this item. For item 2, “most people believe that a person who stutters is just as intelligent as the average person,” 64% reported a 1, 2, or 3, suggesting agreement or strong agreement with this statement. Thirty-six percent of the sample reported a 4, 5, or 6, suggesting disagreement to strong disagreement with this item. For item three, 70% of the sample reported a 1, 2, or 3, suggesting agreement to strong agreement with this item, while 30% of the sample reported a 4, 5, or 6, suggesting disagreement to strong disagreement with this item. Finally, item 4 asked participants to report their agreement with the statement, most employers will hire a person who stutters if he or she is qualified for the job. For this item, 61% of the participants reported a 1, 2 or 3, suggesting agreement with this item. Thirty-nine percent reported a 4, 5, or 6, suggesting disagreement to strong disagreement with this item.

As with the acceptance scale, total scores were calculated for the perceived discrimination items. A higher score for this scale suggests a higher perceived discrimination. The average for this scale is a 14 (Li & Moore, 1998). Fifty-five of the participants (70%) reported a total score of less than 14, suggesting a reduced perception of discrimination. Twenty-five of the participants reported a total score above 14, suggesting a higher perception of discrimination.
Table 3

Responses to items related to perceived discrimination.

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Agree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>Strongly Disagree (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Most people would be willing to accept a person who stutters as a close friend.</td>
<td>39</td>
<td>24</td>
<td>10</td>
<td>6</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2. Most people believe that a person who stutters is just as intelligent as the average person.</td>
<td>15</td>
<td>21</td>
<td>15</td>
<td>13</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>3. Most people in my community would treat a person who stutters as they would treat anyone else.</td>
<td>15</td>
<td>31</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>4. Most employers will hire a person who stutters if he or she is qualified for the job.</td>
<td>8</td>
<td>20</td>
<td>21</td>
<td>12</td>
<td>13</td>
<td>6</td>
</tr>
</tbody>
</table>
**Hostility**

The third part of the questionnaire explored the participants’ reports of hostility. The first item on this scale asked participants to report how often they felt mistreated by other people. Eighty percent of the participants reported never feeling mistreated (a report of 1 or 2) by others and 3% of the participants reported (a 4 or 5) always or almost always feeling mistreated. Item 2 asked participants to report how often they had a hot temper. Sixty percent of the participants reported a 1 or 2 on this scale, suggesting that they never had a hot temper. Nearly 20% (15 participants), reported a 4 or a 5 on the scale, suggesting that they almost always had a hot temper. Item 3 asked participants to report how often their temper got them into trouble. Eighty percent of participants reported a 1 or 2 on the scale, suggesting that their temper never got them into trouble. Eight percent of participants reported a 4 or 5 on the scale, suggesting that their temper almost always got them into trouble. The fourth item asked participants to report how often they got mad at other people. Sixty-nine percent of participants reported a 1 or 2 for this item, suggesting that they never get mad at people easily and 16% reported a 4 or 5, indicating that they almost always get mad at others. The final item dealt with the feeling of anger the individual reported having inside them. Sixty-five percent of the participants reported never feeling anger inside of them and 19% reported feeling anger almost always.

As with the other scales, a total score was calculated for these items by arranging items so that each was equivalent. A higher score on this scale suggests more hostility and a lower score suggests lower hostility. For these items, only 3 participants reported a total score above 20, 14 participants reported a total score between 15 and 20, 19 participants reported a total score between 10 and 14, and 44 participants reported a total score less than 10.
Table 4

*Responses to items related to hostility.*

<table>
<thead>
<tr>
<th>Item</th>
<th>Never (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>Almost Always (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel mistreated by other people.</td>
<td>23</td>
<td>38</td>
<td>16</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. I have a hot temper.</td>
<td>33</td>
<td>15</td>
<td>17</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>3. My temper gets me into fights or other trouble.</td>
<td>52</td>
<td>12</td>
<td>9</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>4. I get mad at other people easily.</td>
<td>29</td>
<td>25</td>
<td>13</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>5. I feel a lot of anger inside of me.</td>
<td>32</td>
<td>20</td>
<td>13</td>
<td>13</td>
<td>2</td>
</tr>
</tbody>
</table>

*Self-Esteem*

The next part of the scale included five items measuring self-esteem. The first item asked participants to report whether they had much to be proud of. Only 3% of the sample reported a 1 or a 2 on this scale, reporting they never or seldom have much to be proud of, and 83% reported a 4 or a 5 on this scale, reporting they often or almost always have much to be proud of. The second item asked participants to report their satisfaction with themselves and 12% of participants reported a 1 or 2 with this item, indicating never or seldom being generally satisfied with oneself and 70% reported a 4 or 5, indicating often or almost always being generally satisfied with oneself. The third self-esteem item asked participants to report how often they felt like a failure. Seventy-five percent of participants reported a 1 or 2 with this item, indicating never or seldom feeling like a failure, and 9% reported a 4 or 5, indicating often or never feeling like a failure. For item 4: I feel I am basically no good, 88% of participants reported a 1 or a 2, indicating never or seldom feeling basically no good, and 3% reported a 4 or a 5 for this item, indicating often or almost always feeling basically no good. For the final item, participants reported how often they felt important to others. Seventy-
three percent of the participants chose a 4 or a 5, suggesting that they always or almost always felt important to others. Only 3% reported never or almost never feeling important to others.

As with the first scale, all items were arranged so that the higher scores coincided with a more positive response. For this scale, 57 participants reported a total score that was 20 or above, representing high self-esteem. Eighteen participants reported a score between 15 and 20, reporting moderate self-esteem, and only 5 participants reported a total score less than 15, indicating low self-esteem.

Table 5

Responses to items related to self-esteem

<table>
<thead>
<tr>
<th>Item</th>
<th>Never (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>Almost Always (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have much to be proud of.</td>
<td>0</td>
<td>3</td>
<td>11</td>
<td>23</td>
<td>43</td>
</tr>
<tr>
<td>2. In general, I am satisfied with myself.</td>
<td>1</td>
<td>9</td>
<td>14</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>3. I feel like a failure.</td>
<td>30</td>
<td>31</td>
<td>12</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>4. I feel I am basically no good.</td>
<td>49</td>
<td>21</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5. I feel I am important to others.</td>
<td>1</td>
<td>2</td>
<td>19</td>
<td>38</td>
<td>20</td>
</tr>
</tbody>
</table>

Emotional Support

The final part of the scale included two items that measured participants’ perceptions of emotional support. For the first item, the participants reported how much emotional support they received from their family. Eighty percent of the participants reported either a 3 or 4 for this item, suggesting that they felt their family supported them a great deal. Twenty percent reported a 1 or 2, suggesting less support. The second item directed participants to report their perceptions of support from their friends. Seventy-four percent of
participants reported a 3 or 4 for this item, suggesting some or a great deal of support. Twenty-six percent of participants reported either a 1 or 2 for this item, suggesting little to no support from friends. As with the other items, a total score was derived. Sixty-three participants reported a total score between six and eight, 24 participants reported a score of four or five, and three participants reported a total score of one or two.

**Correlations Between Acceptance of Stuttering and Other Factors**

The first research question was answered by exploring potential correlations between the total scores reported by the participants for the scales related to acceptance of stuttering, perceived discrimination, hostility, self-esteem, and emotional support. This analysis was done using PPMC. Table 7 summarizes the results for this analysis. Acceptance of stuttering was negatively correlated with both perceived discrimination and hostility. Thus, as reports of acceptance of stuttering increased, reports of hostility and perceived discrimination decreased. Also, acceptance of disability was positively correlated with self-esteem, suggesting a relationship between increased acceptance and increased self-esteem. There was not a significant correlation between acceptance of disability and emotional support. Perceived discrimination was positively correlated with hostility, suggesting that as perceived discrimination increased so did hostility. Perceived discrimination was also negatively correlated with self-esteem and emotional support, suggesting that reports of increased perceived discrimination were correlated with reduction in reports of self-esteem and emotional support. Similarly, hostility was negatively correlated with self-esteem and emotional support. Finally, self-esteem and emotional support were positively correlated.
Table 6

Responses to items related to emotional support

<table>
<thead>
<tr>
<th>Item</th>
<th>None (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>A Great Deal (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much emotional support do you receive from your family?</td>
<td>3</td>
<td>13</td>
<td>29</td>
<td>35</td>
</tr>
<tr>
<td>2. How much emotional support do you receive from your friends?</td>
<td>3</td>
<td>18</td>
<td>31</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 7

Summary of Pearson correlations for acceptance of stuttering, perceived discrimination, hostility, self-esteem, and emotional support.

<table>
<thead>
<tr>
<th></th>
<th>Acceptance of Stuttering</th>
<th>Perceived Discrimination</th>
<th>Hostility</th>
<th>Self-Esteem</th>
<th>Emotional Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance of Stuttering</td>
<td>xxxx</td>
<td>r= -.470**</td>
<td>r= -.417**</td>
<td>r= .548**</td>
<td>r= .059</td>
</tr>
<tr>
<td>Perceived Discrimination</td>
<td>r= -.470**</td>
<td>xxxx</td>
<td>r= .454**</td>
<td>r= -.342**</td>
<td>r= -.225**</td>
</tr>
<tr>
<td>Hostility</td>
<td>r= -.417**</td>
<td>r= .454**</td>
<td>xxxx</td>
<td>r= -.484**</td>
<td>r= -.225*</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>r= .548**</td>
<td>r= -.342**</td>
<td>r= -.484**</td>
<td>xxxx</td>
<td>r= .368**</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>r= .059</td>
<td>r= -.225**</td>
<td>r= -.279</td>
<td>r= -.368**</td>
<td>xxxx</td>
</tr>
</tbody>
</table>

**significant at p<.01 (2-tailed)

*significant at p<.05 (2-tailed)
Research Question 2: Does attending speech therapy, the type of therapy received, perceived success of therapy outcome, and support group participation effect reports of acceptance of stuttering?

The final items on the demographic section of the questionnaire asked participants to report their experiences with therapy, different kinds of therapies, and support groups. These data are summarized in Table 8. The first of these items asked participants to report whether they engaged in a certain kind of therapy, and whether the therapy was effective. Scores were provided for a variety of programs. From the descriptive data, one can ascertain that the participants engaged in a variety of therapy programs, with no therapy program showing an overwhelming level of success compared to others. The effect of the reported therapy participating outcome, either successful or unsuccessful, on acceptance of stuttering was measured using t-tests. It can be seen that success with any of the types of therapy did not have an effect on reports of acceptance of stuttering.

Sixty-two participants reported being involved with a support group and 18 did not. A t-test was conducted to explore the impact of being involved in a support group on reports of acceptance of stuttering. Results suggested that support group involvement did not have a significant impact on acceptance of stuttering ($t=.094; p=.760; df=1,79$).

Research Question 3: Does age, stuttering severity, gender, ethnicity, marital status, income level, education, and employment status impact acceptance of stuttering?

The relationship or the effect of personal characteristics on acceptance of stuttering was also explored. First, a PPMC was conducted to ascertain if the age of the participants was correlated with reported acceptance of stuttering. The results did not suggest a significant correlation between participants’ age and acceptance of stuttering ($r=.129; p=.253$).
Table 8

Summary of means, standard deviations, \( t \)-test comparing the impact of reports of success or nonsuccess with a variety of therapy approaches on reports of acceptance of stuttering.

<table>
<thead>
<tr>
<th>Therapy Approach</th>
<th>Participants Reporting Success/mean/standard deviation</th>
<th>Participants Reporting Nonsuccess/mean/standard deviation</th>
<th>( t )-value</th>
<th>( p )-value</th>
<th>Degrees of Freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapy in General</td>
<td>41/3.84/6.59</td>
<td>23/3.53/6.35</td>
<td>1.79</td>
<td>.077</td>
<td>2.62</td>
</tr>
<tr>
<td>Stuttering Modification Therapy</td>
<td>41/3.78/6.24</td>
<td>24/3.54/6.72</td>
<td>1.46</td>
<td>.150</td>
<td>2.63</td>
</tr>
<tr>
<td>Fluency Shaping therapy</td>
<td>41/3.75/6.67</td>
<td>26/3.62/6.47</td>
<td>.769</td>
<td>.445</td>
<td>2.65</td>
</tr>
<tr>
<td>Mixed Approach to therapy</td>
<td>37/3.69/7.07</td>
<td>15/3.51/6.69</td>
<td>.781</td>
<td>.881</td>
<td>2.50</td>
</tr>
<tr>
<td>Counseling</td>
<td>26/3.82/6.98</td>
<td>18/3.52/7.03</td>
<td>1.38</td>
<td>.174</td>
<td>2.42</td>
</tr>
<tr>
<td>Drug therapy</td>
<td>6/3.53/9.24</td>
<td>12/3.60/7.93</td>
<td>-.159</td>
<td>.875</td>
<td>2.16</td>
</tr>
</tbody>
</table>

The impact of participants’ self-reported severity of stuttering on acceptance was explored using a \( t \)-test. Since a small number of participants reported no stuttering or severe stuttering, the groups were collapsed so that the participants reporting mild or no stuttering were represented in one group (n=38) and the participants reporting moderate or severe stuttering represented the second (n=42). Results of this comparison suggested no effect for stuttering severity on acceptance (df= 2, 78; \( t \)=1.587; \( p \)=.117).
A multivariate analysis of variance (MANOVA) was conducted to explore the impact of gender, ethnicity, and marital status. Each independent variable had two levels. Gender was separated into male (n=50) and female (n=30). Ethnicity was separated in white (n=60) and then other (n=20), since there were relatively low number of respondents in the non-white population. Similarly, marital status was separated into married (n=46) and other (n=34), since the other options had few respondents. Results of the MANOVA are reported in Table 9. From this data, it can be ascertained that none of the variables or the interaction of these variables had a significant effect acceptance of stuttering.

A multivariate analysis of variance (MANOVA) was conducted to explore the impact of employment status, education level, and income level on acceptance of stuttering. Employment status was separated into those participants who were employed full-time (n=52) and all others (n=28), including unemployed, students, retired, etc. Education level was separated into high school graduates (n=4), some college (n=5), bachelor’s degree (n=21), master’s degree (n=32), doctoral degree (n=11), and MD/JD (n=7). Income level was separated into salary ranges of $0-19,999 (n=22), $20,000-39,999 (n=7), $40,000-59,999 (n=17), $60,000-79,999 (n=11), $80,000-99,999 (n=7), and $100,000 and above (n=16). Table 10 summarizes the results of this MANOVA. Results suggest no significant impact for each variable or the interactions on acceptance of stuttering.
Table 9- *Results for Multivariate Analysis of Variance exploring the effects of gender, ethnicity, and marital status on acceptance of stuttering*

<table>
<thead>
<tr>
<th>Factor</th>
<th>df</th>
<th>F-Value</th>
<th>p-value</th>
<th>partial eta²</th>
<th>observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>2, 79</td>
<td>1.43</td>
<td>.236</td>
<td>.019</td>
<td>.218</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>2, 79</td>
<td>.843</td>
<td>.362</td>
<td>.012</td>
<td>.148</td>
</tr>
<tr>
<td>Marital Status</td>
<td>2, 79</td>
<td>2.88</td>
<td>.094</td>
<td>.039</td>
<td>.388</td>
</tr>
<tr>
<td>Gender*Ethnicity</td>
<td>4, 79</td>
<td>3.01</td>
<td>.087</td>
<td>.040</td>
<td>.403</td>
</tr>
<tr>
<td>Gender*Marital Status</td>
<td>4, 79</td>
<td>1.70</td>
<td>.196</td>
<td>.023</td>
<td>.251</td>
</tr>
<tr>
<td>Ethnicity*Marital Status</td>
<td>4, 79</td>
<td>1.63</td>
<td>.206</td>
<td>.022</td>
<td>.242</td>
</tr>
<tr>
<td>Gender<em>Ethnicity</em>Marital Status</td>
<td>6, 79</td>
<td>.120</td>
<td>.730</td>
<td>.002</td>
<td>.063</td>
</tr>
</tbody>
</table>

Table 10- *Results for Multivariate Analysis of Variance exploring the impact of employment status, education level, and income level on acceptance of stuttering.*

<table>
<thead>
<tr>
<th>Factor</th>
<th>df</th>
<th>F-Value</th>
<th>p-value</th>
<th>partial eta²</th>
<th>observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Status</td>
<td>1, 79</td>
<td>.014</td>
<td>.907</td>
<td>.000</td>
<td>.052</td>
</tr>
<tr>
<td>Education Level</td>
<td>5, 79</td>
<td>.730</td>
<td>.605</td>
<td>.072</td>
<td>.240</td>
</tr>
<tr>
<td>Income Level</td>
<td>5, 79</td>
<td>.106</td>
<td>.990</td>
<td>.011</td>
<td>.072</td>
</tr>
<tr>
<td>Employment*Education</td>
<td>2, 79</td>
<td>1.52</td>
<td>.229</td>
<td>.061</td>
<td>.307</td>
</tr>
<tr>
<td>Employment*Income</td>
<td>3, 79</td>
<td>1.70</td>
<td>.335</td>
<td>.069</td>
<td>.292</td>
</tr>
<tr>
<td>Education*Income</td>
<td>12, 79</td>
<td>1.63</td>
<td>.611</td>
<td>.176</td>
<td>.412</td>
</tr>
</tbody>
</table>
CHAPTER IV: DISCUSSION

The purpose of this study was to examine the relationship between acceptance of stuttering and its correlates. To investigate the relationships, the responses of 80 adults who stutter to items related to demographics, therapy history, acceptance of stuttering, and other psychosocial issues were analyzed. The following discussion section will explore the findings of this study, discuss how these findings relate to past research in this area, state the clinical relevance of these findings, report on limitations of this study, and provide suggestions for future research. The first part of the discussion will focus on findings related to acceptance of stuttering and self-esteem, perceived discrimination, hostility, and social support (research question 1). The second part will focus on the findings related to acceptance of stuttering and speech therapy history, support group participation, and demographics factors (research questions 2 and 3). The final part of the discussion will report on limitations of the study and suggestion for future research.

Part 1- Acceptance of Stuttering and Psychosocial Factors

Acceptance of disability, as defined by Wright (1983), is an adjustment of a person’s value system such that their actual or perceived loss (disability) does not negatively affect the value of existing abilities or the person as a whole. By acceptance, the person will not feel inferior or shameful because of the disability (Wright, 1983). In this study, participants’ acceptance of stuttering was measured by using the ADM scale. The majority of the participants reported high acceptance (44%) and some acceptance (45%) of stuttering, with only 9 participants (11%) reporting low acceptance of stuttering. These results suggest that the large majority of AWS demonstrated acceptance of stuttering. Significant correlations were found between acceptance of stuttering and self-esteem, perceived discrimination, hostility, and social support. No significant correlation was found between acceptance of stuttering and emotional support.

Self-esteem, or feeling good about the self, was reported in high levels by the majority of the participants (71%). Past research on self-esteem among PWS has been inconsistent. The high percentage of participants reporting high self-esteem found in this study supports several other studies (Blood & Blood,
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2004; Blood, Blood, Tellis & Gabel, 2001; Blood, Blood, Tellis & Gabel, 2003 Yovetich, Leschied & Flicht, 2000). Consistent with previous research in the field of disabilities (Belgrave, 1991; Heinemann & Shontz, 1982; Linkowski & Dunn 1974; Seika, 1974; Starr & Heiserman, 1977), self-esteem was found to have a significant, positive correlation with acceptance of stuttering. According to Wright (1983) self-esteem is an important factor in self-image. High self-esteem can be defined as a summation of positive self-perceived attributes and qualities which have the potential to positively improve one’s self-image. The positive self-image created by elevated levels of self-esteem may emphasize the individual’s competences over limitations, thus leading to acceptance (Li & Moore, 1998). This finding supports the notion that high self-esteem is an important component of acceptance of stuttering, and thus management of stuttering. This finding suggests that improving self-esteem can be beneficial for individuals who stutter.

Perceived discrimination, defined as the behavioral manifestation of negative attitude, judgment, or unfair treatment toward members of a group (Pascoe & Richman, 2009) was reported to be high for 25 (31%) of the participants. This finding indicates that almost a third of the participants reported feeling discriminated. Perceived discrimination among PWS is not surprising as several studies have found that many groups in society portray PWS negatively (Cooper & Cooper, 1996; Cooper & Rustin, 1985; Crowe & Cooper, 1977; Crowe & Walton, 1981; Crowe and Cooper, 1977; Lass, et al., 1992; Fowlie and Cooper, 1978; Ruscello, Lass, & Brown, 1988; St. Louis & Lass, 1981; White & Collins, 1984). In the current study, perceived discrimination was found to have a significant negative correlation with acceptance of stuttering. In other words, participants who reported lower perceived discrimination were more likely to accept stuttering. Similar correlations have been found in acceptance of other disabilities (Graf, Marini, & Blankermship, 2009; Li & Moore, 1998; Pascoe & Richman, 2009). Perceived discrimination can isolate and segregate individuals from society by placing negative emphasis on the person’s disability. Discrimination may be a constant and/or aggravating reminder of the negative attributes associated with disability, making the person feel inferior and shameful. The potential negative self-perceptions created by discrimination may impede one from devaluing damaged surface appearances and therefore hinder the process of acceptance. Similarly, hostility, the expression of anger or opposition, was also found to be low in the large majority
(78%) of participants and to have a significant negative correlation with acceptance of stuttering. A negative correlation between hostility and acceptance of disability was also found by Li and Moore (1998).

In previous studies, emotional support has been found to have an significant positive impact in the rehabilitation process and acceptance of disability (Isaksson, Lexell, & Skar, 2007; Li & Moore, 1998, Tzonichaki & Kleftaras, 2002). In the current study 80% participants reported receiving a considerable amount of emotional support from family members and 74% seventy-four percent of participants reported receiving a considerable amount of support from friends. Overall, the majority (64%) of participants reported receiving a great deal of support from families and friends. Unlike other acceptance of disability studies, no significant correlation between acceptance of stuttering and emotional support were found.

The findings of this study suggest that the psychosocial factors of self-esteem, perceived discrimination, and hostility are correlated with acceptance of stuttering. Similar correlations have been found in studies focusing on other disabilities. Therefore, the results of this study suggest that acceptance of stuttering shares similar factors to acceptance of other disabilities.

Part 2- Effects of therapy, therapy success, support groups, and stuttering severity on acceptance of stuttering

Stuttering often leads one to seek speech therapy or other types of interventions. All but 8 (90%) participants reported attending speech therapy, with duration times ranging from less than a year to 29 years. Of the participants who reported on therapy success, 64% indicated therapy in general to be successful. The stuttering intervention methods reported to be most successful were a mixed approach therapy (71%), stuttering modification therapy (64%), fluency shaping therapy (61%), and counseling (59%). Fewer participants reported using less traditional therapy interventions, which included drug therapy and fluency devices. Participants who reported on these approaches reported low success rate for both, fluency devices (15%) and drug therapy (33%). Similar results were found by Swartz’s (2010) and Hayhow et al. (2002), which found that the majority of participants reported that speech therapy for stuttering had been successful. Surprisingly, the current study did not find a significant effect between therapy type or therapy success on
acceptance of stuttering. Previous studies have found that stuttering therapy leads to better management and coping of stuttering (Guitar, 2006; Hayhow, Cray & Enderby, 2001; Plexico, Manning & DiLollo; 2009b; Swartz, 2010) and better management and coping to be themes in acceptance of stuttering. (Klompas & Ross, 2004; Swartz, 2010). However, current findings do not support past studies’ findings.

Support groups for individuals who stutter have been increasing in numbers drastically in the recent years and its members have reported highly positive impacts from attending these groups (Yaruss et al., 2002). Nearly 80% of this study’s participants reported attending a support group for stuttering. The high percentage of positive responses was expected since part of the recruitment process involved the NSA, a support group for stuttering. The current findings did not find significant differences in acceptance of stuttering between individuals who reported attending support groups verses individuals who reported not attending support groups. This finding contradicts that of Yaruss et al. (2002) which found support groups to benefit self-image and self-acceptance.

Past studies have found several demographic factors to effect acceptance of disability including: age (Li & Moore, 1998, Plexico, Manning, & DiLollo, 2004; Wright, 1983), marital statues (Harrison et al. 2004; Joiner, Lovett, & Goodwin, 1989; Li & Moore, 1998), income (Li & Moore, 1998), employment (Berglund, Mattiassson, & Nordstrom, 2003; Li & Moore, 1998), ethnicity (Joiner, Lovett, & Goodwin, 1989), education (Chao, 2010; Richardson, Adner, and Nordstrom, 2000), and severity of disability (Swartz, 2010). The current study did not find demographic factors to have a significant effect on acceptance of stuttering. Current results do not support Swartz’s (2010) findings which found individuals with mild stuttering severities to be more accepting of their stuttering.

Several studies indicate increases in negative stereotypes with increased severity of stuttering (Collins & Blood, 1988; Gabel, 2006; Susca & Healey, 2002; Turnbaugh, Guitar, & Hoffman, 1979). It would be fair to assume that these stereotypes would lead to greater perceived discrimination which in turn would affect acceptance of stuttering, however, this was not apparent in this study. Another major contradicting finding in
this study was that age was not correlated to acceptance of stuttering. This finding differs from Plexico, et al. (2004) which found individuals over the age of 30 to be more acceptance of stuttering.

The results from the current study suggests acceptance of stuttering to be correlated with self-esteem, perceived discrimination, and hostility. While numerous other studies on acceptance of disabilities have found demographics, therapy history, and disability severity to have an effect on acceptance of disability, none were found in this study. Possible reasons for disagreement in findings can be due to study limitations.

Part 3—Limitations and Future Research

The aim of this study was to provide increased understanding of acceptance of stuttering and which factors effect it. Although, the current results provided new data to the limited body of research on acceptance of stuttering some limitations must be mentioned and discussed. One of the primary limitations of the study was that the sample may not be representative of the general population of PWS. Some of the characteristics of the sample which may make it unrepresentative were the high percentage of participants who: (1) participated in speech therapy; (2) attended support groups; (3) acquired high education degrees; (4) reported high income; (5) and reported mild stuttering. To address these limitations future studies should attempt to include a more diverse sample. Another limitation of the sample is that its geographical representation is unknown. Future studies should add items asking about geographical information of the participants.

Another limitation of this study was that only adults who stutter were sampled. No information on children or teens was gathered. To analyze acceptance of stuttering in children and adolescents future studies should include these populations in the research sample. In addition, it might have been helpful to analyze the participants’ knowledge of stuttering, as this has been found to be correlated with coping with stuttering (Swartz, 2010). Future studies should also explore the acceptance of stuttering of parents or caregivers and its effects on the child’s self-acceptance of stuttering. Furthermore, participants’ familiarity with PWS may also be important. Future studies should include items in the demographics pertaining to familiarity with
others who stutter, including family members, friends, therapists, and members of one’s emotional support network.

CHAPTER V: CONCLUSIONS

This research study analyzed the effects between acceptance of stuttering and (1) psychosocial factors, (2) treatment history, and (3) demographic characteristics and stuttering condition. Acceptance of stuttering was found to positively correlate with self-esteem, and negatively correlated with, both, perceived discrimination and hostility. These correlations are similar to correlations found in acceptance of other disabilities. Therefore, it is fair to assume that acceptance of stuttering is similar acceptance of other disabilities. The results of this study did not indicate significant differences between demographics, therapy history, stuttering condition, emotional support, and acceptance of stuttering.

For individuals whose stuttering is a chronic problem, acceptance of disability may be an important factor in living with stuttering. Acceptance of disability has been found to increase quality of life and lead to better health outcomes (Harrison, Stuifbergen, Adachi & Becker, 2004). Research on acceptance of stuttering is extremely limited, it is hoped that additional data will be provided for this area by future studies. Future studies in this area should attempt to use a sample representational of the general population of PWS.
REFERENCES


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*Seminars in Speech and Language, 23*(3), 195-203.


*Journal of Fluency Disorders, 27*, 115-134.


Appendix A

BOWLING GREEN STATE UNIVERSITY
DEPT OF COMMUNICATION SCIENCES AND DISORDERS

Informed Consent

Hello, my name is Thales De Nardo. I am a graduate student in Communication Sciences and Disorders at Bowling Green State University. I am conducting a graduate thesis research study involving adults who stutter. You have been identified by either your involvement in support groups or clinics for people who stutter. This study is only to be completed by individuals over the age of 18. If you are at least 18 years old, I hope you will consider participating in my research study.

As a participant in this study, you will be asked to complete the following survey. The survey is composed of a demographics section followed by questions about your therapy history. The remainder of the survey is 4 short questionnaires. Completion of the survey should take no more than 10 minutes. The purpose of this study is to analyze if and how one’s level of acceptance of stuttering is correlated with any other factors.

I anticipate no risks or costs to you as a result of your participation in this study other than the time it will take to complete the survey. Participation in this study is completely voluntary. Deciding to participate or not will not impact any relationship you may have with Bowling Green State University, the National Stuttering Association, or any other organization. You may choose to withdraw from the study at any time. While there may be no immediate benefit to you as a result of you participation in this study, it is hoped that you will choose to complete this survey. Your answers will benefit our field’s knowledge base related to this important topic.

The information that you give will be kept anonymous and no identifiable information about you will be used in any publications related to this research. All completed questionnaire information will be stored in a database that is password protected and secure. Upon completing the questionnaire, be sure to clear your search history in your internet browser.

Once the study is completed, I would be glad to give you the results. If you have any questions please contact Dr. Gabel at rgabel@bgsu.edu or (419) 372-7168 or myself at thalesd@bgsu.edu or at (330) 475-3173

If you have any questions about participant rights you may contact the HSRB Chair at (419) 372-7716 or hrsb@bgsu.edu.

By completing and submitting this survey you are indicating your consent to participate in this study.

BGSU HSRB-APPROVED FOR USE

ID # HUT014GE7

EFFECTIVE: 10.18.10

EXPIRES: 8.4.11
Appendix B

Demographics

1. Your age: _______________________

2. Gender:  __ Male  __ Female  ___Other

3. Ethnicity:  __ American Indian or Alaska Native  __ Asian  __ Black or African-American  
  __ Hispanic or Latino  __ Native Hawaiian or other Pacific Islander  
  ___ White  ___Other

4. Marital Status:  ___Married  ___Single  ___Divorced  ___Widowed  ___Separated  
  ___Partnership  ___Other

5. What is the highest level of education you have completed?
  __ Grammar School  __High School or equivalent  __Vocational/technical school (2 years)  
  __ Some College  __Bachelor’s degree  __ Master’s degree  
  ___ Doctoral degree  ___ Professional degree (MD,JD, etc.)

6. What is your employment status?
  ___ Full-time  __Part-time  ___Student  ___Retired  ___Homemaker  
  __ Temporarily Unemployed  ___Permanently unemployed

7. If employed please describe your occupation.  

8. What is your yearly income?
  ___ Less than $10,000  ___$40,000 to $59,999  
  ___ $10,000 to $19,999  ___$60,000 to $79,999  
  ___ $20,000 to $39,999  ___$80,000 to $99,999  
  ___ $100,000 to $149,999  ___$150,000 or more
Appendix C

**Stuttering History**

9. Do you stutter?
___Yes   ___No

10. Currently, how severe would you rate your stuttering?
___No stuttering   ___Mild   ___Moderate   ___Severe

11. Around what age did you start to stutter?
___0-3   ___3-5   ___5-8   ___8-12   ___after 12
Appendix D

**Therapy History**

12. Are you currently or have you ever been in a stuttering support group?
   _Yes  _No

13. Are you presently receiving speech therapy for stuttering?
   _Yes  _No

14. If No, have you ever had speech therapy?
   _Yes  _No

15. In your life, how many years have you spent in therapy?  

16. In your opinion, how successful has your speech therapy been?
   _Successful  _Not successful  _N/A

17. Which of the following approaches to reduce stuttering have you participated in and were they successful or not successful for you?

<table>
<thead>
<tr>
<th></th>
<th>Successful</th>
<th>Not Successful</th>
<th>N/A</th>
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<tbody>
<tr>
<td>Stuttering Modification</td>
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<tr>
<td>(voluntary stuttering,</td>
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<tr>
<td>slides, bounces,</td>
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<td>cancellations, pull-outs,</td>
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<td>and work on attitudes/</td>
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<td>feelings)</td>
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<tr>
<td>Fluency Shaping</td>
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<tr>
<td>(slower rate, light</td>
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<td>articulatory contacts,</td>
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<td>easy onsets, controlled</td>
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<td>phrasing)</td>
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<td>other assistive device</td>
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<tr>
<td>Drug Therapy</td>
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Appendix E

Acceptance of Stuttering

1. Stuttering prevents me from doing things I want.
   __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)

2. Stuttering affects those aspects of my life that I care most about.
   __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)

3. A person who stutters is no different than anyone else.
   __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)

4. Stuttering is so overwhelming to me that I cannot enjoy anything.
   __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)

5. It is important for me to accept myself as I am.
   __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)

6. I feel I am able to offer a lot to other people.
   __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)

7. Stuttering has disrupted my life greatly.
   __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)

8. Stuttering does not interfere with achieving what I want to do.
   __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)

9. I feel OK about talking about my stuttering with others.
   __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)

10. A person who stutters can enjoy many things in life.
    __1 (strongly agree)          __2  __3    __4      __5 (strongly disagree)
Appendix F

Perceived Discrimination

1. Most people would be willing to accept a person who stutters as a close friend.
   __1 (strongly agree) __2 __3 __4 __5 (strongly disagree)

2. Most people believe that a person who stutters is just as intelligent as the average person.
   __1 (strongly agree) __2 __3 __4 __5 (strongly disagree)

3. Most people in my community would treat a person who stutters as they would treat anyone else.
   __1 (strongly agree) __2 __3 __4 __5 (strongly disagree)

4. Most employers will hire a person who stutters if he or she is qualified for the job.
   __1 (strongly agree) __2 __3 __4 __5 (strongly disagree)
Appendix G

Hostility

1. I feel mistreated by other people
   __1 (never)   __2   __3   __4   __5 (almost never)

2. I have a hot temper
   __1 (never)   __2   __3   __4   __5 (almost never)

3. My temper gets me into fights or other trouble
   __1 (never)   __2   __3   __4   __5 (almost never)

4. I get mad at other people easily
   __1 (never)   __2   __3   __4   __5 (almost never)

5. I feel a lot of anger inside me
   __1 (never)   __2   __3   __4   __5 (almost never)
Appendix H

Self-esteem & Emotional Support

1. I have much to be proud of.
   __1 (never) __2 __3 __4 __5 (almost never)

2. In general, I am satisfied with myself.
   __1 (never) __2 __3 __4 __5 (almost never)

3. I feel like a failure.
   __1 (never) __2 __3 __4 __5 (almost never)

4. I feel I am basically no good.
   __1 (never) __2 __3 __4 __5 (almost never)

5. I feel I am important to others.
   __1 (never) __2 __3 __4 __5 (almost never)

6. How much emotional support do you receive from your family?
   __1 (none) __2 __3 __4 (a great deal)

7. How much emotional support do your receive from your friends?
   __1 (none) __2 __3 __4 (a great deal)
Appendix I

Dear __________,

Hello, my name is Thales De Nardo. I am a graduate student in Communication Sciences and Disorders at Bowling Green State University. I am writing today to ask for your help with a graduate thesis research study that I am conducting. The goal of this study is to analyze correlates associated with acceptance of stuttering. Those who participate in the study will be asked to complete an on-line questionnaire. The survey should take only 5-10 minutes to complete. I am contacting you today to ask for your assistance in conducting this important study. You have been identified through your membership in ASHA’s Special Interest Division-4 and/or because you are a BRSFD. It is my hope that you may be able to participate in the study and help me identify adults who stutter (over 18 years of age) on your caseload or that you are in contact with who might be interested in participating.

Please contact Thales De Nardo at thalesd@bgsu.edu if you are interested in assisting with this study.

Thank you,

Thales De Nardo
Appendix J

Dear __________,

Thank you for helping me with the study. Please forward the message below to potential participants. Also, if you are a person who stutters feel free to participate.

Thank you,

Thales De Nardo

Hello, my name is Thales De Nardo. I am a graduate student in Communication Sciences and Disorders at Bowling Green State University. I am conducting a graduate thesis research study involving adults who stutter. You have been identified by either your involvement in support groups or clinics for people who stutter. This study is only to be completed by individuals over the age of 18. If you are at least 18 years old, I hope you will consider participating in my research study.

As a participant in this study, you will be asked to complete the following survey. The survey is composed of a demographics section followed by questions about your therapy history. The remainder of the survey is 4 short questionnaires. Completion of the survey should take between 5-10 minutes. The purpose of this study is to analyze if and how one’s level of acceptance of stuttering is correlated with any other factors.

I anticipate no risks or costs to you as a result of your participation in this study other than the time it will take to complete the survey. Participation on this study is completely voluntary. Deciding to participate or not will not impact any relationship you may have with Bowling Green State University, the National Stuttering Association, or any other organization. You may choose to withdraw from the study at any time. While there may be no immediate benefit to you as a result of your participation in this study, it is hoped that you will choose to complete this survey. Your answers will benefit our field’s knowledge base related to this important topic.

The information that you give will be kept anonymous and no identifiable information about you will be used in any publications related to this research. All completed questionnaire information will be stored in a database that is password protected and secure. Upon completing the questionnaire, be sure to clear your search history in your internet browser.

Once the study is completed, I would be glad to give you the results. If you have any questions please contact Dr. Gabel at rgabel@bgsu.edu or (419) 372-7168 or myself at thalesd@bgsu.edu or at (330) 475-3173
If you have any questions about participant rights you may contact the HSRB Chair at (419) 372-7716 or hsrb@bgsu.edu.

By completing and submitting this survey you are indicating your consent to participate in this study.

This link will take you to the survey, which is on a secure website. https://www.surveymonkey.com/s/T3JNZS9
Appendix K

March 18, 2011

Thales De Nardo, B.A.
Communication Sciences and Disorders
Bowling Green State University

Dear Mr. De Nardo,

I am happy to inform you that the Research Committee of the National Stuttering Association has approved for your research project titled: “Acceptance of Stuttering and Its Correlates”. I want to let you know that this approval is valid for one year from today’s date. Any changes to your original proposal, must be submitted in writing and are subject to approval. Upon completion of your study, we request a copy of the results as specified in the directions for researchers section of the National Stuttering Association’s Web page:

Investigators should forward a copy of their final report, or a summary of outcome of the research project to the NSA national office. NSA requests that NSA’s role be acknowledged in any presentations or publications stemming from the research project.

I would also ask you for a short abstract of your project that we can post on the NSA website informing prospective participants how they will be contacted and recruited for this project. This will serve to help you in the recruiting process and assure them of our approval. I also ask that you provide a copy of the IRB approval that you noted in your proposal for our records. As soon as this is received, you may proceed with recruitment.

If you have any further questions regarding this project, or any other issues, please feel free to contact me at any time. You may also contact Tammy Flores, our Executive Director at the National Office for any help or support. We wish you success in your research endeavor.

Sincerely,

[Signature]

John A. Tetnowski, PhD, CCC-SLP
Ben Blanco/BoRSF Endowed Professor in Communicative Disorders
PhD Coordinator in Applied Language and Speech Sciences
Board Recognized Fluency Specialist and Mentor
Chair, Public Relations Committee, National Stuttering Association

Chair, Research Committee, National Stuttering Association

University of Louisiana at Lafayette
Department of Communicative Disorders

P.O. Box 43170
Lafayette, LA 70504-3170
Office: 337-482-6869 Fax: 337-482-1540: e-mail: tetnowski@louisiana.edu
Hello, my name is Thales De Nardo. I am a graduate student in Communication Sciences and Disorders at Bowling Green State University and a supporter of the National Stuttering Association. I am conducting a graduate thesis research study involving adults who stutter. You have been identified by either your involvement in support groups or clinics for people who stutter. This study is only to be completed by individuals over the age of 18. If you are at least 18 years old, I hope you will consider participating in my research study.

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https://www.surveymonkey.com/s/T3JNZS9