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Mental Health Professionals' Beliefs About, Reactions Toward, and Overall Impression of Stuttering

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MENTAL HEALTH PROFESSIONALS’ BELIEFS ABOUT, REACTIONS TOWARD, AND OVERALL IMPRESSION OF STUTTERING

Elise Anne Nasser, M.A.
Western Michigan University, 2022

The purpose of the current study is to better understand mental health professionals’ beliefs, reactions, overall impression, and familiarity with stuttering to gain insight into areas where they may need more support. Some people who stutter develop increased levels of anxiety because of negative evaluation from the public (Iverach & Rapee, 2014). It is likely that a sub-group of people who stutter may benefit from mental health services; however, misinformation about stuttering may serve as a barrier in effective service provision for those who work with people who stutter (Ginsberg & Wexler, 2000). Quantitative survey data (Public Opinion Survey of Human Attributes-Stuttering; POSHA-S) is supplemented with qualitative data (open-ended questions) to explore mental health professionals’ understanding of stuttering. Results indicate that mental health professionals hold generally positive beliefs, reactions, and overall impression of stuttering. There is evidence, however, of uncertainty regarding the causes of stuttering and affirming responses to stuttering. Results demonstrate that mental health professionals’ familiarity with stuttering predicts reactions toward stuttering. The results suggest a need for collaboration between mental health professionals and speech-language pathologists to support mental health professionals in the direction of providing more equitable services for people who stutter.
MENTAL HEALTH PROFESSIONALS’ BELIEFS ABOUT, REACTIONS TOWARD, AND OVERALL IMPRESSION OF STUTTERING

by

Elise Anne Nasser

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CHAPTER I

INTRODUCTION

“I went into a heavy depression and all of that. So I became suicidal and it was at that point, you know it was the point of brokenness, I ran out of, you know, ideas. I had absolutely nothing to look forward to...” - Clipper, a person who stutters (Plexico et al., 2009).

Many people know stuttering by its observable characteristics in speech but stuttering includes much more than that. As demonstrated in Clipper’s quote, stuttering can include minimal to significant negative thoughts and feelings related to communicating differently that adversely impact quality of life (Boyle 2013). The complexity of stuttering is often described using an iceberg analogy (Sheehan, 1970). The verbal disfluencies that are observable to others encompass the tip of the iceberg, which lies above the water’s surface. What the general public may not realize is that stuttering includes cognitive and affective components, which make up the invisible portion of the iceberg that lies beneath the water’s surface. The iceberg, including the observable and unobservable parts, is influenced by society or “what’s in the water” around it. In particular, the cognitive and affective components are thought to emerge and develop as people who stutter encounter repeated negative social penalties from communicating differently (e.g., negative stereotypes, bullying, discrimination; G. Blood & I. Blood, 2004; Blumgart et al., 2010b; Davis et al., 2002; Gerlach et al., 2018; Iverach & Rapee, 2014; Zeigler-Hill et al., 2020). For Clipper and some other people who stutter, feelings of depression and anxiety may emerge as a result of experiencing negative social penalties:

“I was mocked a lot. I was called you know stupid... uh I was called stutter box, and uh I believe because I was so sensitive it kinda offered all my bullies the opportunity to abuse me in
many ways... I was spit on and chased home a lot. I was threatened. And so around the age of eleven I began to feel that, I was tired of feeling like a victim. I hated myself because of my stuttering...” - Clipper, a person who stutters (Plexico et al., 2009).

Clipper described his personal experience with bullying as abuse. He felt threatened and victimized. Repeatedly enduring social penalties and stigma has corrosive associations with mental health among people who stutter (Boyle, 2018) and in other marginalized groups (Alimoradi et al., 2020; Corrigan et al., 2012; Hatzenbuehler et al., 2013; Mink et al., 2014; Pachankis, 2007). As a result, some people who stutter are more prone to experiencing mental health challenges.

The role of a mental health professional is to aid their clients in alleviating mental distress (Altholz & Golensky, 2004). However, mental health professionals are not exempt from being exposed to the same negative stereotypes about stuttering as the rest of society through negative portrayals of stuttering in news, television, film, and literature (Azios et al., 2020; Johnson, 2008). The stereotypes and misunderstandings about stuttering may serve as barriers to effective service provision for people who stutter who work with mental health professionals (Ginsberg & Wexler, 2000). To date, little is known about how much mental health professionals understand about stuttering and respectful, affirmative practices for interacting with people who stutter. Other helping professionals, such health care workers and educational personnel, have been shown to have negative attitudes toward stuttering (Beste-Guldborg et al., 2015; Lass et al., 1994; Yeakle & Cooper, 1986). Because stigma is rampant (Boyle, 2013) and education about stuttering is limited among the general public (Boyle, 2017), it is likely that mental health professionals could benefit from additional training to work more effectively with people who stutter.
Familiarity is a factor that has important relationships with attitudes toward stuttering; specifically, people with higher levels of familiarity with people who stutter demonstrate more positive attitudes toward people who stutter than people with lower levels of familiarity (Boyle et al., 2016). Thus, understanding familiarity with stuttering among mental health professionals and its relationships with attitudes toward people who stutter could play an important role in future research aiming to promote positive attitudes toward stuttering among mental health professionals. Though not all people who stutter have mental health challenges, it is important to advocate for the sub-group of people who stutter who may seek services so that they have access to equitable care. The main objective of the study is to gain a deeper understanding of mental health professionals' knowledge of stuttering and understand areas in which they may need more support in effort to better inform future collaboration between speech-language pathologists and mental health professionals.

The aims of this study were:

1) To document mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering.

2) To investigate if and how familiarity with stuttering predicts mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering.

3) To determine what mental health professionals need to know about stuttering in order to provide more effective services.
CHAPTER II
REVIEW OF THE LITERATURE

This chapter is organized into five sections. In the first section, I discuss the multidimensional nature of stuttering, including its behavioral, cognitive, and affective components. Second, I review the literature on stigma associated with stuttering. In the third section, I examine the relationship between living with stuttering and increased risk for mental health challenges. Fourth, I describe perceptions of stuttering from various helping professionals. In the last section, I discuss the significance of the current study.

2.1 The Multidimensional Nature of Stuttering

Stuttering is a variation in communication, or communication disorder, that is often characterized by a high frequency of verbal disfluencies that impede the flow of effortless, forward moving speech (Guitar, 2013). The incidence of stuttering, or number of people who have ever stuttered in their life, is about 5% of the population and typically onsets at the preschool age (Singer et al., 2020; Yairi & Ambrose, 1999). Approximately 80% of young children exhibit recovery from stuttering without any intervention. On the other hand, stuttering is a lifelong condition for the remaining who persist into adulthood (Yairi & Ambrose, 1996; Yairi & Ambrose, 1999). The prevalence of stuttering, or the amount of people who stutter at a given point in time, is approximately 1% of the population, which is 70 million people worldwide (Yairi & Ambrose, 2013). Stuttering is a multidimensional communication disorder that consists of behavioral, cognitive, and affective components.

The behavioral component of stuttering consists of three core behaviors— sound/syllable repetitions (e.g., “b-b-bye” or “ba-ba-baby); prolongations (e.g., “hyyyyhello); and blocks (e.g.,
“my;” Yairi & Ambrose, 2013). The behaviors of stuttering are highly variable, meaning that the frequency of disfluencies varies day by day and situation by situation (Constantino et al., 2016; Tichenor & Yaruss, 2021). The general public is most familiar with the behavioral component; however, the experience of stuttering also includes thoughts and feelings related to communicating differently. Thus, cognitive and affective components play a significant role in the overall experience of stuttering as well.

The cognitive and affective components of stuttering vary depending on the lived experiences of each individual person who stutters. Tichenor and Yaruss (2019) investigated group experiences and individual differences in behaviors, thoughts, and feelings related to stuttering. In the study, 502 adults who stutter completed a survey that gathered information about their behaviors, thoughts, and feelings during moments of stuttering in a Likert-scale format. Results revealed that a majority of participants indicated that they experience more negative cognitive-affective states (e.g., feelings of embarrassment, being emotionally drained, and being ashamed) compared to positive cognitive-affective states (e.g., feeling empowered) during moments of stuttering. The results also demonstrated how individual experiences play a role in the development of thoughts and feelings related to stuttering. An individual’s history of self-help/support group participation was associated with their speaking goals, which in turn was related to their thoughts and feelings toward stuttering. The study provides evidence that each person who stutters has unique experiences associated with stuttering, which may shape their cognitive and affective components of stuttering.

Though not all communicative interactions are negative, Tichenor and Yaruss demonstrated that it is not uncommon for some people who stutter to develop negative thoughts and feelings related to their stuttering. Negative thoughts and feelings associated with stuttering
are thought to develop as a result of encountering social penalties within communicative interactions over time (Boyle et al., 2016). Some examples include frequent interruptions, filling in words, demeaning remarks (e.g., “relax”), and lack of patience (Alholz & Golensky, 2004; Boyle, 2017; Corcoran & Stewart, 1998; Plexico et al., 2009). Langevin and colleagues (2009) reported evidence of negative reactions toward stuttering beginning as early as the preschool years with teasing, filling in sentences, and getting turned away from while communicating. The researchers videotaped four outdoor play sessions of four different preschoolers who stutter and their peers. Each of the four children’s utterances during the play sessions were transcribed in order to identify moments of stuttering and associated peer reactions. The results of the study indicated that stuttering had negative social consequences for all four preschoolers who stutter, such as getting interrupted, mocked, or ignored. Despite encountering negative experiences, meta-analysis research has demonstrated that preschoolers who stutter do not present with an increased risk of anxiety compared to non-stuttering controls at this young age (Smith et al., 2014).

Children whose stuttering persists beyond the preschool years are vulnerable to continued encounters of negative listener reaction during the school years. School-aged children and adolescents who stutter are more likely to experience bullying and rejection compared to typically fluent peers (G. Blood & I. Blood, 2004; Davis et al., 2002). These ableist reactions toward stuttering, although often unintentional, can take an emotional toll on some people who stutter and may lead to diminished quality of life (Boyle & Fearon, 2018). Accordingly, for many children the risk of anxiety increases as children who stutter reach adolescence and adulthood (Smith et al., 2014).
Adults who stutter have been shown to experience negative thoughts and feelings toward stuttering. Craig and colleagues (2009) investigated the association between living with stuttering and quality of life in adults who stutter. The study included a sample of 200 adults who stutter compared to 200 adults who do not stutter in which all participants completed a booklet of standardized psychological and quality of life questionnaires. Between-group comparisons indicated that the group of people who stutter had lower quality of life in terms of social functioning, emotional functioning, and mental health status.

In addition to research on quality of life, numerous groups of researchers have explored potential relationships between stuttering and mental health conditions, most commonly anxiety and social anxiety. In their meta-analysis, Craig and Tran (2014) analyzed results from 19 studies examining trait and social anxiety in adults who stutter. Eleven of the 19 studies assessed trait anxiety (i.e., predisposition to experience anxiety in situations of social evaluation, physical anger, ambiguity, and daily routines; Endler & Kocovski, 2001) and eight of the studies assessed social anxiety (i.e., nervousness in some social situations and fear of scrutiny of others; M. Stein & D. Stein, 2008). The results of the meta-analysis indicated that a majority of adults who stutter displayed elevated trait anxiety and substantially elevated social anxiety. Given the potential negative impact stuttering could play on mental health, some people who stutter may benefit from participating in mental health services.

Stuttering is multidimensional in that it not only includes behavioral characteristics in speech, but it also includes the development of thoughts and feelings regarding differences in communication. Though each person who stutters has individual lived experiences, many people who stutter are likely to encounter social penalties starting as early as preschool and progressing
through adulthood. Consequently, negative thoughts and feelings associated with stuttering are
thought to arise due to living with the stigma associated with stuttering.

2.2 Stigma Contributes to the Cognitive and Affective Components of Stuttering

Stigma is defined as the process of labeling a specific group’s traits as undesirable, which
leads to devaluing and excluding the stigmatized group (Link & Phelan, 2006). People who
stutter fall into the category of a “stigmatized group” due to the general public’s inaccurate
perceptions of stuttering, such as assuming people who stutter are nervous, shy, or less
competent than typically fluent speakers (Boyle et al., 2009; Cooper & Cooper, 1985; Gabel,
2006; Kalinowski et al., 1996). Negative perceptions have wide-ranging effects that impact the
emotional wellbeing of some people who stutter. Some people who stutter internalize negative
perceptions formulated from the public and begin associating those beliefs as part of their self-
identity, which leads to self-stigma (Boyle, 2013). Stigmatization is thought to cause and
exacerbate negative cognitive and affective components of stuttering, resulting in an increased
risk for mental health challenges (Boyle & Fearon, 2018; Corrigan et al., 2009; Major & O’Brien,
2005). Mental health challenges are thought to arise as a result of living with stigma because
they are not inherent to the onset of stuttering. Research largely shows that there are no
differences in levels of anxiety, depression, or social anxiety between young children who stutter
and young children who do not stutter (Alm, 2014; Kefalianos et al. 2014; Smith et al., 2014).
However, as people who stutter age and acquire more life and social experiences, group
differences in mental health outcomes begin to emerge (Briley et al., 2021; Craig et al., 2003;
Craig & Tran, 2014; Ezrati-Vinacour & Levin, 2004).

In addition to research documenting stigma associated with stuttering, there is also
research that has investigated strategies to combat stuttering stigma. Boyle and colleagues (2016)
conducted a study that involved 212 adults who were each assigned to watch either an anti-stigma strategy video or a control video. The anti-stigma strategies in the study included protest (e.g., video condemning stereotypes about stuttering), education (e.g., video about myths and facts about stuttering), and contact (e.g., video of a person who stutters sharing their personal story). The participants completed stereotype and stigma questionnaires prior to and after watching their assigned video. Results of the study demonstrated that increased interpersonal contact with a person who stutters can be useful for improving negative attitudes toward stuttering (Boyle et al., 2016). The more familiarity one has communicating with a person who stutters, the more likely that stigmatization will be lesser or not occur. Additionally, Boyle and colleagues reported that education on the facts and myths of stuttering is another beneficial strategy for decreasing stigma associated with stuttering. Increasing contact with people who stutter and education about stuttering can be done through various mediums, such as in-person contact at events or conferences and video contact by watching educational documentaries.

Because familiarity with stuttering is shown to impact attitudes toward stuttering, it is important to consider mental health professionals’ previous amount of contact with people who stutter. It is not uncommon for mental health professionals to lack knowledge on stuttering given its low incidence and limited opportunities to learn about stuttering (Ginsberg & Wexler, 2000). Therefore, it is likely that mental health professionals could use more support and education in order to increase their familiarity with stuttering. The purpose of the current study was to investigate if and how mental health professionals’ familiarity with stuttering predicts their attitudes towards stuttering.
2.3 Living with Stuttering is Associated with an Increased Risk for Mental Health Challenges

Given the stigma associated with stuttering, it is not surprising that people who stutter are at an increased risk for mental health adversity (Alm & Risberg, 2006; Blumgart et al., 2010a; Briley et al., 2020; Craig et al., 2003a; Ezrati-Vinacour & Levin, 2004; Iverach & Rapee, 2014; Messenger et al., 2004; Smith et al., 2014). It is important to note that not all people who stutter necessarily need counselors, as clinically significant mental health challenges do not always co-occur. However, it is likely that a sub-group of people who stutter could benefit from mental health services in addition to speech therapy (Iverach et al., 2011; Lindsay & Langevin, 2017). This section reviews the literature on anxiety, social anxiety, depression, and suicidal ideation.

It has been debated in the literature as to if people who stutter show group-level differences in terms of clinically significant anxiety when compared to typically fluent speakers. Miller and Watson (1992) found that people who stutter have similar levels of anxiety compared to people who do not stutter. In the study, a group of 52 people who stutter and a group of 52 people who do not stutter completed questionnaires aimed at measuring levels of depression and anxiety. The raw scores for each questionnaire were compared between groups and the results revealed no significant difference in self-reported measures of anxiety and depression. A small handful of other studies have replicated the findings of no between-group differences in anxiety (Andrews et al., 1983; Blood et al., 1994; Blood et al., 2006; Ingham, 1984; Menzies et al., 1999). Other research, however, shows that some people who stutter are at a higher risk of developing anxiety. Craig and colleagues (2003) aimed to identify levels of anxiety in a population of people who stutter through a randomized population study. The researchers conducted telephone interviews of people in 4,689 households. During the phone call, the researchers gave a definition of stuttering and asked if any person living in the household was a person who stutters.
If the participant answered yes, the researchers requested permission to ask a series of questions to measure anxiety attributes, also known as trait anxiety. Data were then compared to a control group of people who do not stutter. The results of their study indicated that people who stutter are at a higher risk of developing increased levels of anxiety compared to typically fluent speakers.

The literature has demonstrated a relationship between stuttering and heightened anxiety over the past two decades (Craig & Tran, 2014; Iverach et al., 2011; Iverach & Rapee, 2014; Iverach et al., 2017; Mahr & Torosian, 1999; Smith et al., 2014). Research has revealed that approximately 22%-60% of adults who stutter met the criteria for a diagnosis of social anxiety disorder (Blumgart et al., 2010a; Iverach, O’Brien, et al., 2009; Menzies et al., 2008). In addition, Iverach and colleagues (2016) reported that 24% of school-aged children who stutter met the criteria for a diagnosis of social anxiety disorder compared to only 5% of school-aged children who do not stutter. Thus, some people who stutter are in need of psychological services at a rate that is similar to or higher than people who do not stutter likely due to the social penalties that occur as a result of living with the stigma associated with stuttering.

Messenger and colleagues (2004) investigated social anxiety of people who stutter related to expectancies of social penalties. The study used a sample of 34 people who stutter and 34 people who do not stutter. Participants completed tests to assess levels of social anxiety and a Fear of Negative Evaluation Scale to measure fear of being evaluated negatively by the public. The data indicated that the group of people who stutter were more fearful of being evaluated negatively in social contexts than the group of typically fluent speakers. The fear is likely conditioned through repeated negative social experiences (Constantino et al., 2017).
Due to heightened fear of being negatively evaluated by the public in social settings, some people who stutter may develop social phobias. Blumgart and colleagues (2010a) investigated differences in social anxiety and social phobias between a group of 200 people who stutter and a group of 200 people who do not stutter. The researchers utilized informal interviews and psychological questionnaires to obtain data. Once the mean values for the psychological questionnaires were calculated, the differences between the two groups were tested by multivariate analysis of variance. The descriptive statistics demonstrated that the group of adults who stutter were significantly more anxious and had a larger number of social phobia symptoms compared to the group of adults who do not stutter. Specific social phobia symptoms that were experienced by some adults who stutter included public speaking, business meetings, social gatherings or parties, and asking questions in a group. Though some people who stutter exhibit elevated levels of anxiety and social anxiety, it is critical to understand that anxiety does not cause stuttering nor is it inherent to the conditioning of stuttering itself (Onslow & O’Brian, 2013). However, people who stutter report that anxiety can exacerbate moments of stuttering and make it more difficult to say what needs to be said (Corcoran & Stewart, 1998; Plexico et al., 2009).

In addition to anxiety and social anxiety, depression and suicidal ideation are other components of mental health that have been shown to have reliable associations with stuttering. Briley and colleagues (2021) recently investigated associations between stuttering, depression, and suicidal ideation in adolescents and young adults. The researchers utilized a longitudinal survey that collected data on 13,564 participants over the course of 14 years to analyze data related to depressive symptoms and suicidal ideation. Individuals were identified as a person who stutters according to if they answered “yes” to having a problem with stuttering on the
The authors utilized regression analysis to test the relationship between depression, suicidal ideation, and stuttering. The authors found that males and females who stutter had higher levels of depressive symptoms than those who did not stutter. In terms of severity, the group of males who stutter demonstrated consistent levels of depressive symptoms over time whereas the group of females who stutter demonstrated an increase in severity of depressive symptoms with age. The study also revealed that males who stutter had a higher likelihood of suicidal ideation compared to males who do not stutter, a finding that was not true for females. The study demonstrated that depressive symptoms and suicidal ideation may increase over time potentially due to difficulties with social acceptance, which causes negative self-perception regarding communication abilities (Briley et al., 2021; Adriaensens et al., 2015).

The literature presents important findings related to mental health adversity experienced by some people who stutter, which in turn may lead some people who stutter to seek mental health services. If a mental health professional holds unintentional negative perceptions toward stuttering, then services may not be as effective as they could be in helping to ameliorate distress (Ginsberg & Wexler, 2000). Few measures have been taken to understand mental health professionals’ attitudes toward stuttering. On the other hand, many other helping professionals have been researched in order to gain a better understanding of their perceptions of stuttering.

2.4 Perceptions of Stuttering Among Helping Professionals

An abundance of studies have investigated attitudes toward stuttering amongst helping professionals, including vocational counselors, speech-language pathologists, and teachers. Research has documented that helping professionals generally hold negative stereotypes of stuttering. Hurst and Cooper (1983) collected quantitative survey data from 152 vocational counselors and found that they believed stuttering to be vocationally handicapping. Vocational
counselors in the study also held beliefs that people who stutter possess stereotyped personality traits (e.g., shy, insecure, nervous) and perceived that the public reacts negatively toward stuttering.

Speech-language pathologists are another group of helping professionals that have been researched to measure their attitudes toward stuttering. Boyle (2014) investigated 330 school-based speech-language pathologists’ attitudes toward stuttering compared to two other stigmatized disorders: functional articulation disorders and cerebral palsy. Boyle utilized a survey that contained items measuring onset controllability (i.e., how much an individual person is responsible for the onset of a condition), offset controllability (i.e., how much an individual person is responsible for the solution of a condition), biological attributions (e.g., genetics), non-biological attributes, willingness to help, sympathy, and anger for each of the disorders. At the end of the survey, there was an additional portion that measured negative attitudes toward people who stutter. Boyle found that speech-language pathologists held misconceptions about stuttering in terms of its controllability (i.e., ability of people who stutter to control stuttering). As a result, speech-language pathologists who held the misconception that stuttering could be controlled associated more dislike and less sympathy toward people who stutter. These negative stereotypes were linked with higher age of speech-language pathologists.

Attitudes toward stuttering have also been well-researched among educational personnel, with many studies focused specifically on teachers. Yeakle and Cooper (1986) measured 521 teachers’ attitudes toward stuttering utilizing a survey study. The researchers discovered that teachers believed stuttering to negatively impact academic success and associated people who stutter with traits such as quiet, shy, and nonverbal. Similarly, Crowe and Walton (1981) conducted a survey study in which they documented 100 elementary school teachers’ attitudes
toward stuttering. Results revealed that the teachers typically held negative attitudes toward stuttering and there were positive correlations among teachers’ attitudes and knowledge of stuttering. More recently, Abrahams and colleagues (2016) measured 469 teachers’ attitudes toward stuttering in South Africa through quantitative survey data. In contrast with the previous two studies, the researchers found that teachers in South Africa held more positive views about stuttering, as indicated by positive responses. However, the results of Abraham and colleagues’ study were not uniformly positive. Personality stereotypes were still present, such as assuming people who stutter are shy, fearful, and nervous. It has been documented that helping professionals generally hold negative stereotypes about stuttering, with multiple studies focused on specific professions. However, research focused on mental health professionals, such as counselors, psychologists, and social workers, is scarce.

Given their specialized education and training in promoting quality of life among people with communication differences and disorders, speech-language pathologists are arguably the most equipped professionals to treat the behavioral, cognitive, and affective components of stuttering. Yet, evidence suggests that collaboration among speech-language pathologists and psychologists may better serve some people who stutter (Iverach & Rapee, 2014; Lindsay & Langevin, 2017). Lindsay and Langevin (2017) investigated a total of nine clients’ experiences with psychological counseling as an adjunct to speech therapy for stuttering, six of which participated in psychological counseling services while three participants did not. The researchers conducted semi-structured interviews with the participants to gain insight on their perspectives related to including psychological counseling as a necessary component of stuttering treatment programs.
The themes that emerged from the interviews were grouped into four clusters. The first cluster included themes related to participants’ personal decision-making for psychological counseling. Some participants expressed a ‘why not’ attitude which led them to access counseling services whereas others felt they needed access to counseling services as a venting outlet. Participants that did not feel the need to access counseling services stated that they “didn’t need it” at the time. Another cluster included themes related to reflections on why people, other than themselves, may choose not to participate in counseling. Participants mentioned that stigma, fear of judgement, cost, and time may be contributing factors that cause some people who stutter to not participate. The third cluster contained themes related to counseling as a ‘worthwhile part of therapy.’ All participants thought that having access to counseling with a mental health professional would be an important component to speech therapy. Specifically, those who participated in counseling found it to be beneficial in relieving personal distress. The fourth and final cluster included themes related to counseling as a necessary component in speech therapy that begs wider promotion. Participants indicated that there was a need to promote involvement of counselors in speech therapy services because many people who stutter are not aware of access to counseling services. The authors suggested that it would be beneficial for speech-language pathologists to work on an interdisciplinary team with mental health professionals to maximize clients’ treatment outcomes for at least sub-groups of people who stutter. However, there is little research pertaining to mental health professionals’ degree of understanding of stuttering and how it impacts their services.

Similarly, Altholz and Golensky (2004) also stressed the importance of collaborative treatment among speech-language pathologists, social workers, and counselors when working with people who stutter. To help educate mental health professionals about stuttering, Altholz
and Golensky published an informative article to educate social workers and counselors about the casual factors of stuttering in order to assist them in improving their understanding of stuttering. The authors stated that mental health professionals are generally uniformed about stuttering, which in turn could cause people who stutter to distrust therapists and speech-language pathologists may be hesitant to refer clients to counselors (Luterman 1996). Though the authors suggest that mental health professionals are uniformed about stuttering, they did not measure factors, such as beliefs about or reactions toward stuttering, to support their statement. It is important to understand the specific areas in which mental health professionals may need more information in order to provide them with education that pertains to the specific areas in which they may lack knowledge.

In another education-based article, Ginsberg and Wexler (2000) reported that mental health professionals typically assume that people who stutter are nervous, uptight, unintelligent, and socially inept. However, the limitation of the article was synonymous with the previous study in that the authors did not provide data measuring the number of mental health professionals that hold such beliefs about stuttering. Like the previous study, the authors’ aim was to provide education and guidelines for counselors to create positive therapeutic relationships with clients who stutter. Though it is important to provide education to counselors who may work with people who stutter, it is equally important to document mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering in order to tailor informative articles to best cover the areas in which they may lack knowledge. Authors from two articles have suggested that mental health professionals may hold negative stereotypical views about stuttering. These views could negatively impact therapeutic
relationships and the alleviation of mental distress. Yet, both studies had no data to support their claims.

In contrast with the education-based articles, Beste-Guldborg and colleagues (2015) aimed to measure helping professionals’ attitudes toward stuttering, which included mental health professionals. The mental health professionals included in the study were office secretaries, mental health aides, licensed clinical social workers, addiction counselors, licensed clinical professional counselors, medical social workers, psychologists, and psychiatrists. The perceptions of stuttering in 509 individuals of various helping professionals (i.e., mental health, education, health care, law enforcement professions) were investigated using the Public Opinion Survey of Human Attributes-Stuttering (POSHA-S) to measure stuttering attitudes.

The POSHA-S is a practical, reliable, and valid survey instrument that has been used to measure public attitudes toward stuttering worldwide (Abrahams et al., 2016; Arafia et al., 2021; Flynn et al., 2011; Ip et al., 2012; Nabieh et al., 2021; Özdemir et al., 2011; Przepiorka et al., 2013; St. Louis, 2011; St. Louis, 2012; St. Louis et al., 2013; St. Louis et al., 2016a; St. Louis et al., 2016b; Üstün-Yavuz et al. 2021; Valente et al., 2017; Walker et al., 2016; Weidner et al., 2015). The POSHA-S contains three sub-groups. Two of the sub-groups measure stuttering (i.e., beliefs about people who stutter and self-reactions to stuttering). These two sub-groups were addressed through a series of questions related to the casual factors of stuttering, personal beliefs about stuttering, and reactions toward stuttering using a scale from 1-3 (1 = no, 2 = not sure, 3 = yes). The third sub-group measures two other human attributes that are perceived as “negative” (i.e., mental health and obesity). Participants were asked to rate their overall impression, their desire to possess the attributes, and amount known about stuttering, mental health, and obesity on a scale from 1-5 (1 = most negative, 5 = most positive).
Beste-Guldborg and colleagues collected and analyzed data according to POSHA-S guidelines, which included using a -100 to 100 scale (-100 = most negative attitudes, 0 = neutral, and 100 = most positive attitudes) to measure the three sub-groups. The mean values for all three POSHA-S sub-groups were reported for each helping professional included in the study. The data revealed that educational personnel (e.g., teachers, principals), health care professionals (e.g., doctors, nurses), and law enforcement professionals (e.g., police officers, judges) held negative stereotypes about stuttering, as indicated by negative mean scores.

Mental health professionals presented the most positive perceptions of stuttering, as indicated by positive mean scores, compared to the other helping professionals; however, they were not positive overall. Results revealed that some mental health professionals had an unease with stuttering, evidence of stuttering stereotypes, and uncertainty of where to obtain accurate information related to stuttering. Beste-Guldborg and colleagues mentioned that a limitation of the study was that it may not have been representative of each helping profession individually because the study measured the attitudes of a number of helping professionals. This indicates that it would be beneficial to look at mental health professionals more closely.

The mental health professionals included in the current study were counselors, psychologists, and social workers. The results of the study from Beste-Guldborg and colleagues were not representative of counselors, psychologists, and social workers specifically because many other facets of mental health professionals were included, such as office secretaries, addiction counselors, mental health aides, and psychiatrists. Though it is beneficial to investigate attitudes among many different types of mental health professionals that a person who stutters may encounter, the present study aimed to specifically focus on mental health professionals who work clinically with clients with anxiety and depression.
2.5 Purpose of the Current Study

The existing literature highlights the complexity of stuttering, including its behavioral, cognitive, and affective components. Stuttering includes not only behavioral characteristics in speech but also thoughts and feelings related to communication. Some people who stutter develop negative thoughts and feelings about their communication over time due to encountering repeated stigma associated with stuttering (Boyle & Fearon, 2018). Repeated negative evaluation from the public may contribute to an elevated risk of mental health adversity for some people who stutter (Alm & Risberg, 2006; Iverach & Rapee, 2014). Thus, there is likely a sub-group of people who stutter who could benefit from psychological therapy as an adjunct to speech therapy. More research is needed to better understand mental health professionals’ beliefs about and reactions toward stuttering and how it impacts their services (Lindsay & Langevin, 2017).

Many other groups of professionals, such as vocational counselors, speech-language pathologists, and teachers, have been researched in-depth to determine the degree to which attitudes toward stuttering impact their overall impression of stuttering (e.g., Boyle, 2014; Crowe & Walton, 1981; Hurst & Cooper, 1983; Lass et al., 1994; Yeakle & Cooper, 1986). Contrarily, research delving into mental health professionals’ knowledge and attitudes is sparse. Altholz and Golensky (2004) and Ginsberg and Wexler (2000) suggested that mental health professionals are in need of more education about stuttering; however, few measures have been taken to examine the areas in which they could use support to improve their understanding. The purpose of the current study was to fill this gap in the literature.

In the current study, our definition of mental health professionals included counselors, psychologists, and social workers (National Alliance on Mental Illness, 2020). The current study utilized primary quantitative data to document their beliefs about, reactions toward, overall
impression, and familiarity with stuttering. In addition, a supplemental qualitative component was utilized to gain personal insight from mental health professionals related to specific ways in which speech-language pathologists could help them better understand stuttering. It is critical to understand mental health professionals’ beliefs about and reactions toward stuttering because of the critical role they play or could play in counseling clients who stutter. Part of doing so includes exploring their familiarity with people who stutter, as familiarity with stuttering is shown to be helpful in reducing stigma (Boyle et al., 2016). The aims of the current study were:

1) To document mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering.

2) To investigate if and how familiarity with stuttering predicts mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering.

3) To determine what mental health professionals need to know about stuttering in order to provide more effective services.
CHAPTER III
METHODOLOGY

This chapter is organized into five sections describing the study design, participants, recruitment, procedures, and data analysis.

3.1 Study Design

The purpose of the current study was to examine mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering. Data was collected through an online administration of the Public Opinion Survey of Human Attributes-Stuttering (POSHA-S). The primary data source for this online survey study included quantitative self-report data from the POSHA-S. These data were supplemented with qualitative data from additional open-ended questions to provide insight into areas in which mental health professionals believe they could use more education on stuttering.

Quantitative research aims to provide an objective analysis of specified variables with the goal of describing or predicting the occurrence of a phenomena whereas qualitative research aims to explore the specified variables in natural contexts with the goal of understanding personal experiences (Bothe & Andreatta, 2004). Quantitative research approaches have historically been the predominant approach used in stuttering research (Cheek et al., 2004). However, Tetnowski and Damico (2001) indicated that research can be both quantitative and qualitative to help explain complex phenomena.

Data source triangulation was implemented by using multiple data sources, which provides a more comprehensive picture of the topic of interest (Heale & Forbes, 2013; Hussein, 2009). Triangulation is different from mixed methodology which combines both quantitative and
qualitative approaches together as primary forms of data (Denzin, 2012). The current study utilized primary quantitative data to document beliefs about, reactions toward, overall impression, and familiarity with stuttering. The qualitative piece added information to gain a better understanding of the areas in which mental health professionals could use more support in order to empower the collaboration between mental health professionals and speech-language pathologists.

3.2 Participants

To obtain and document rich quantitative data on mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering, a purposive sample approach was utilized. The sample in the current study included three specific groups of mental health professionals - counselors, psychologists, and social workers. Purposive sampling was chosen because it focuses on selecting a particular group of participants deliberately to be included in the sample (Taherdoost, 2016). The recruitment target for this online survey study was 80 mental health professionals. To be eligible, participants must have reported that they (1) were a board-certified counselor, psychologist, or social worker, (2) were living in the Midwest region of the United States, and (3) proficient in English, as assessed through self-report. The sample was restricted to mental health professionals who were currently living in the Midwest region of the United States to increase homogeneity of the sample due to evidence of attitudes toward stuttering varying across geographical locations (St. Louis et al., 2016b).

An a priori power analysis was conducted to determine the minimum sample size needed for the statistical analysis of research aim two by using G*Power 3.1.9.7 (Faul et al., 2007; Faul et al., 2009). A multiple linear regression power analysis was used with the following input parameters: (1) an effect size of $f^2 = 0.15$, (2) an $\alpha$ of 0.05, (2) a power level of 0.80, (3) and two
predictor variables. The two predictor variables were familiarity and age. An effect size of 0.15 was used based on the typical medium effect size from Cohen (1992). The power analysis determined that the minimum number of participants required was 68 to meet the assumptions described above.

The survey was completed by 80 mental health professionals who lived in the Midwest region of the United States. The sample consisted of 11 people who identified as male (13.8%), 66 who identified as female (82.5%), 2 who identified as non-binary (2.5%), and 1 who did not report their gender (1.3%) The age of participants ranged from 23 to 72 years old (M = 40.98, SD = 11.09). The sample was primarily white (86.3%). The sample included 22 counselors (27.5%), 7 psychologists (8.8%), and 51 social workers (63.8%). Additional information regarding state of residence, age, ethnicity, years of education, and employment status is listed in Table 3.1.

Table 3.1

Participant Demographic Information

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>( f )</th>
<th>%</th>
</tr>
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</tr>
<tr>
<td></td>
<td>Indiana</td>
<td>3</td>
<td>3.8</td>
</tr>
<tr>
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<td>Iowa</td>
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<td>1.3</td>
</tr>
<tr>
<td></td>
<td>Michigan</td>
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<td>86.3</td>
</tr>
<tr>
<td></td>
<td>Ohio</td>
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<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Wisconsin</td>
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<td>1.3</td>
</tr>
<tr>
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<tr>
<td></td>
<td>Female</td>
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<tr>
<td></td>
<td>Non-binary</td>
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<th>40-49</th>
<th>50-59</th>
<th>60-69</th>
<th>70-79</th>
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<tbody>
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<td>11</td>
<td>5</td>
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</tr>
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<td>3.8</td>
<td>2.5</td>
</tr>
<tr>
<td>50-59</td>
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<td>86.3</td>
<td>86.3</td>
<td>86.3</td>
<td>86.3</td>
</tr>
<tr>
<td>60-69</td>
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<tr>
<td>70-79</td>
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<td>1.3</td>
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</table>

<table>
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<tr>
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<th>Multiracial</th>
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<td>1.3</td>
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<table>
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<tr>
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<th>Social Worker</th>
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<td>51</td>
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<td>63.8</td>
</tr>
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<td></td>
<td></td>
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<tr>
<td>50-59</td>
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<td></td>
<td></td>
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<tr>
<td>60-69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70-79</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Status</th>
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<th>Unemployed or not working</th>
<th>Working</th>
<th>Retired</th>
<th>No response</th>
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<td>20-29</td>
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<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>30-39</td>
<td>0</td>
<td>1</td>
<td>78</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>40-49</td>
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<td>1</td>
<td>78</td>
<td>0</td>
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<td>78</td>
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<tr>
<td>60-69</td>
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<td>78</td>
<td>0</td>
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<td>70-79</td>
<td>0</td>
<td>1</td>
<td>78</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

3.3 Recruitment

Mental health professionals were recruited from an email database created by collecting emails through an online search of mental health practices across the Midwest region of the United States. Participants were also recruited through the help of the National Association of Social Workers - Michigan Chapter. Recruitment emails were sent to counselors, psychologists, and social workers from the various practices contacted through the email database and the National Association of Social Workers - Michigan Chapter (see Appendix A). In addition, participants were recruited through personal contacts that were contacted either by email, text message, or distribution of an electronic flyer (see Appendices A through C). A recruitment flyer was also posted in private Facebook and LinkedIn groups for the National Association of Social Workers - Michigan Chapter (see Appendix C). Participants were sent an email with screening questions if they expressed interest in participating in the study (see Appendix D for the
Screening Questionnaire). The screening questionnaire was utilized to ensure that participants met the inclusion criteria for the study. If a participant met the criteria, they were emailed a personalized survey link so that data could be traced to the specific link in the case of suspicious survey activity. In the event of suspicious survey activity, responses for the specified link were reviewed for potential exclusion.

A gift card incentive was implemented to maximize the rate of responses. Gift cards were mailed to 80 mental health professionals who completed the survey, which was defined as answering 80% or more of the questions in the questionnaire and responding to the open-ended questions. At the end of the survey, participants were provided with a link to a separate survey to enter for a $5.00 gift card and were given the option to choose between a Starbucks or Amazon gift card.

3.4 Procedures

The survey was web-based using Qualtrics Software. The survey instrument was approved by the Western Michigan University Institutional Review Board in October of 2021 (see Appendix E). Funding from the Graduate Student Research Grant supported the payment incentive provided for survey participants. The Public Opinion Survey of Human Attributes-Stuttering (POSHA-S; St. Louis, 2011) was input into Qualtrics and distributed electronically for data collection. The administration of the POSHA-S has been compared between paper-and-pencil and electronic administration to which public attitudes were observed to be similar between both forms of administration (St. Louis, 2012). Before beginning the survey, participants were presented with an Online Consent Form (see Appendix F), which was read before participants indicated that they wished to participate in the study. Participants were required to provide consent by indicating they agree to the terms in order to access the survey.
The POSHA-S is a reliable and valid survey tool that has been used around the world (Abrahams et al., 2016; Arafa et al., 2021; Flynn et al., 2011; Ip et al., 2012; Nabieh et al., 2021; Özdemir et al., 2011; Przepiorka et al., 2013; St. Louis, 2011; St. Louis, 2012; St. Louis et al., 2013; St. Louis et al., 2016a; St. Louis et al., 2016b; Üstün-Yavuz et al. 2021; Valente et al., 2017; Walker et al., 2016; Weidner et al., 2015). The POSHA-S has three sections: (1) demographics, (2) attitudes toward stuttering and other human attributes, (3) beliefs about and reactions toward stuttering.

In the first section, participants were asked to fill out demographic information, such as age, location, educational history, occupation status, and income. In the second section, participants’ attitudes toward stuttering were compared with four other human attributes. The four human attributes included two attributes that society has historically deemed as “negative” (mental illness and obesity), one attribute deemed as “positive” (intelligence), and one attribute deemed as “neutral” (left-handedness) and participants were asked to rate stuttering and the four other human attributes on a scale from 1-5 (1 = most negative, 5 = most positive).

At the end of the second section, participants were asked to select all that apply in terms of the amount of people they have known who stutter and this measure was used to determine familiarity with stuttering. The 1-5 scale included 1 = nobody, 2 = acquaintance, 3 = close friend, 4 = relative, and 5= me. Each participant’s highest score on the 1-5 scale was recorded as their familiarity score. For instance, if a participant selected that they knew an acquaintance who stutters (score = 2) and a relative who stutters (score = 4), then their familiarity score was recorded as 4 because it was their highest score selected.

In the third and final section, participants’ attitudes toward stuttering were specifically analyzed by examining their beliefs about and reactions toward stuttering. Participants were
asked a series of questions related to their understanding of the causal factors of stuttering, their personal beliefs about stuttering, and their reactions toward stuttering using a scale from 1-3 (1 = no, 2 = not sure, 3 = yes).

The POSHA-S protocol followed a standard layout in which questions from the second and third sections of the POSHA-S formed a total of 11 components (e.g., beliefs about causes of stuttering) that are then grouped into the following three sub-groups: (1) beliefs about people who stutter, (2) reactions toward people who stutter, (3) attitudes toward other attributes, including obesity and mental illness. Though the POSHA-S collected data related to obesity and mental illness, these data were not included in the current study because it did not directly relate to the research aims. The means for each component were averaged to determine the overall mean for each sub-group. The average of the mean of the “beliefs” sub-group and the mean “reactions” sub-group made up the overall stuttering score (OSS). Table 3.2 contains the sub-groups and components of the POSHA-S. Only sub-groups 1 and 2 were included as sub-group 3 was not of interest in the current study.

Table 3.2

Sub-Groups and Components of the POSHA-S

<table>
<thead>
<tr>
<th>Sub-group 1: Beliefs about People Who Stutter*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1: Traits/Personality</td>
</tr>
<tr>
<td>Have themselves to blame</td>
</tr>
<tr>
<td>Are nervous/exitable</td>
</tr>
<tr>
<td>Are shy/fearful</td>
</tr>
<tr>
<td>Component 2: Help From</td>
</tr>
<tr>
<td>SLP</td>
</tr>
<tr>
<td>Other people who stutter</td>
</tr>
<tr>
<td>Doctor</td>
</tr>
</tbody>
</table>
Table 3.2—Continued

<table>
<thead>
<tr>
<th>Component 3: Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetic inheritance</td>
</tr>
<tr>
<td>Learning or habit</td>
</tr>
<tr>
<td>A very frightening event</td>
</tr>
<tr>
<td>Act of God</td>
</tr>
<tr>
<td>Virus or disease</td>
</tr>
<tr>
<td>Ghost, demon, or spirit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component 4: Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can make friends</td>
</tr>
<tr>
<td>Can have a normal life</td>
</tr>
<tr>
<td>Can hold any job</td>
</tr>
<tr>
<td>Can have a job requiring judgement</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-group 2: Reactions toward People Who Stutter*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 5: Accommodating/Helping</td>
</tr>
<tr>
<td>Ignore stuttering</td>
</tr>
<tr>
<td>I should help</td>
</tr>
<tr>
<td>Fill-in words</td>
</tr>
<tr>
<td>Say “slow down” or “relax”</td>
</tr>
<tr>
<td>Make a joke</td>
</tr>
<tr>
<td>Should hide their stuttering</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component 6: Distance/Sympathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feel comfortable</td>
</tr>
<tr>
<td>Feel pity</td>
</tr>
<tr>
<td>Feel impatient</td>
</tr>
<tr>
<td>Concerned if doctor stuttered</td>
</tr>
<tr>
<td>Concerned if neighbor stuttered</td>
</tr>
<tr>
<td>Concerned if sibling stuttered</td>
</tr>
<tr>
<td>Concerned if I stuttered</td>
</tr>
<tr>
<td>Impression of people who stutter</td>
</tr>
<tr>
<td>Want to stutter</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component 7: Knowledge/Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount known about stuttering</td>
</tr>
<tr>
<td>People known who stutter</td>
</tr>
<tr>
<td>Personal experience as a knowledge source</td>
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</tbody>
</table>
Table 3.2—Continued

<table>
<thead>
<tr>
<th>Component 8: Knowledge Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV or radio</td>
</tr>
<tr>
<td>Print</td>
</tr>
<tr>
<td>Internet</td>
</tr>
<tr>
<td>School</td>
</tr>
<tr>
<td>Specialists</td>
</tr>
</tbody>
</table>

*Average of sub-group 1 mean score and sub-group 2 mean score = Overall Stuttering Score (OSS)

In the current study, participants completed the POSHA-S online after being contacted by email. Three modifications were made to the POSHA-S in order to enhance inclusivity and better suit the population of respondents. The first modification was the addition of a non-binary option for gender. The second was the addition of a question asking participants to write the specific certifications they hold for their job (e.g., LPC, LMSW) in addition to their job title to identify any potential suspicious survey activity. The third modification was changing the language from “people who are mentally ill” to “people who have a mental illness” to promote inclusivity by using person-first language. Otherwise, the survey was unchanged.

After completing the POSHA-S, participants were asked to respond to six open-ended questions: (1) If you had to estimate, how many people who stutter have you worked with clinically? (2) Did the topic of stuttering arise in your conversations with clients who stutter and, if so, in what ways and how did you respond? (3) What were the supports, if any, that you’ve had to provide effective services to people who stutter? (4) What are the barriers, if any, that you perceive in providing effective services to people who stutter? (5) How did you respond to moments of stuttering in sessions? What strategies did you use that you think were or were not helpful to the client as they were stuttering? (6) What did you wish you knew about communicating with a person who stutters to be more effective when working with clients who stutter?
At the end of the survey, participants were provided with a link to a new survey through Qualtrics to enter for the gift card incentive (see Appendix H). A separate survey was created in order to keep identifying information collected from the POSHA-S and open-ended responses separate from the gift card survey. The gift card survey asked participants to provide the following information: (1) their full name, including credentials, (2) name of the state they practice in, (3) mailing address, (4) email address. At the end of the gift card survey, participants were given the option to choose between an Amazon eGift card or a Starbucks gift card. The email address was used to send an email notifying the participant that they would be receiving a $5.00 gift card. The email address was also used to send the Amazon eGift cards through email. The mailing address was used to send the Starbucks gift cards through the mail. The information regarding credentials and the state in which they work was obtained in order to identify any potential suspicious survey activity.

3.5 Data Analysis

3.5.1. Analysis Procedures for Research Aim One

Research aim one, which was to document mental health professionals’ beliefs, reactions, and overall impression of stuttering, was analyzed through descriptive statistics (frequency distributions). Descriptive statistics are used to organize, summarize, and present data to provide a description of the sample (Fisher & Marshall, 2009). Participant demographic information was categorized according to state of residence, gender, age, race/ethnicity, current occupation, and employment status. Responses for the POSHA-S were scored according to the POSHA-S standard protocol (St. Louis, 2011), with assistance from the assessment developer, Dr. Kenneth St. Louis, who served as a consultant. Responses were converted to a scale from -100 to 100 (-
100 = most negative attitudes, 0 = neutral, and 100 = most positive attitudes) using standardized POSHA-S procedures. For specific details about POSHA-S scoring procedures, see Appendix I.

3.5.2. Analysis Procedures for Research Aim Two

Research aim two was to investigate if and how familiarity with stuttering predicts mental health professionals’ beliefs, reactions, and overall impression of stuttering. This aim was analyzed through multiple linear regression analysis on IBM SPSS Statistics. Regression analysis is used to describe the relationship between the dependent variable and one or more independent variables in a linear model (Stolzenberg, 2004). In the present study, the dependent variables were beliefs about, reactions toward, and overall impression of stuttering and the independent variable was familiarity with stuttering. We conducted three separate regression analyses, one for each dependent variable. In order to determine statistical significance, the criterion was set at p-values less than .05 (Sullivan & Feinn, 2012). To accurately determine whether familiarity with stuttering predicted beliefs about, reactions toward, and overall impression of stuttering, it was important to control for other independent variables that have been shown to impact attitudes toward stuttering. Hulit and Wirtz (1994) investigated various variables (e.g., age, gender, years of education, number of stuttering people known) related to attitudes toward stuttering and age was identified as a correlated variable that influenced attitudes toward stuttering. Thus, in the current study, age was included as a covariate. The regression analysis allowed an estimation of the variation in beliefs about, reactions toward, and overall impression of stuttering explained by the predictor of familiarity after accounting for age.

3.5.3. Analysis Procedures for Research Aim Three

Research aim three was to determine what mental health professionals need to know about stuttering in order to provide more effective services. The initial intention was to analyze
the open-ended data in correspondence with Braun and Clark’s (2006) six phases of thematic analysis. The six phases included: (1) become familiar with the data, (2) code the data in a systematic fashion, (3) search for themes in the data, (4) review the themes, (5) define the themes (6) provide the final analysis. However, many of the responses to the open-ended questions were short, and not quite rich enough for a full qualitative analysis. Thus, we elected to analyze the open-ended questions with a more descriptive approach that involved summarizing trends in responses.
CHAPTER IV
RESULTS

This chapter is organized into three sections. The first section describes results for research aim one, including descriptive statistics obtained from the Public Opinion Survey of Human Attributes-Stuttering (POSHA-S) related to participant demographics, beliefs about, reactions toward, and overall impression of stuttering. The second section provides the regression results for research aim two, which measured the extent that familiarity with people who stutter predicts beliefs about, reactions toward, and overall impression of stuttering. The third section contains a summary of open-ended responses related to educational needs for mental health professionals as described in research aim three.

4.1. Research Aim One: To document mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering

4.1.1 Beliefs about Stuttering

Table 4.1 contains descriptive statistics of the raw data for the “beliefs” sub-group of the POSHA-S. Participants were asked to respond to questions about stuttering using a 1-3 scale (1 = no, 2 = not sure, 3 = yes). These raw data were then converted according to standard POSHA-S protocol to the -100 to 100 scale (-100 = most negative attitudes, 0 = neutral, and 100 = most positive attitudes) depicted in Figure 4.1.
More than 90% of mental health professionals reported that they did not believe people who stutter are to blame for their stuttering, which is a positive belief. Despite this, mental health professionals displayed misconceptions regarding other traits about people who stutter, as over 70% of mental health professionals agreed or were not sure if people who stutter, as a group, were nervous/excitable or shy/fearful. More uncertainty was present with over half of mental health professionals reporting that they were unsure or disagreed that people who stutter should get help from other people who stutter. The sample also demonstrated uncertain beliefs regarding the cause of stuttering. Over 60% of participants reported that they were unsure or did not believe that stuttering is caused by genetic inheritance and over 40% of participants indicated that they were unsure or believed the stereotype that stuttering is caused by emotional trauma. Approximately 90% of mental health professionals agreed that people who stutter can make
friends, have a normal life, and hold any job, but, as a group, they were less sure that people who stutter could hold jobs requiring judgement.

Figure 4.1 shows the mean scores for the “beliefs” sub-group of the POSHA-S, which are the converted data. The components of each sub-group are listed in all capital letters along the x-axis (e.g., traits/personality, help from, cause, potential) with the corresponding items of each component listed after the title (e.g., to blame, SLP, genetic, make friends). The y-axis displays the -100 to 100 scale (-100 = most negative attitudes, 0 = neutral, and 100 = most positive attitudes). The mean scores from the sample of mental health professionals are represented by the solid black line. The dotted lines indicate ±1 standard deviation of the mean to show the variation in responses.

Figure 4.1

Mental Health Professionals’ Beliefs About People Who Stutter
As a whole, mental health professionals were most positive/neutral in their understanding of the potential of people who stutter. There was more variability in their beliefs about traits people who stutter have, who they should get help from, and causes of stuttering.

4.1.2 Reactions Toward Stuttering

Similar to the layout of the previous section, Table 4.2 contains descriptive statistics of the raw data for the “reactions” sub-group of the POSHA-S. Table 4.2 only includes the items that were scored using the 1-3 scale (1 = no, 2 = not sure, 3 = yes). There were 4 items within the “reactions” sub-group (i.e., impression, want to stutter, amount, persons known) that were not scored using the 1-3 scale; thus, the raw data for these 4 components are not depicted in Table 4.2.

Table 4.2

Mental Health Professionals’ Reactions Toward People Who Stutter

<table>
<thead>
<tr>
<th>Sub-group 2 Components</th>
<th>Sub-group 2 Items*</th>
<th>% No</th>
<th>% Not Sure</th>
<th>% Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accommodating/Helping</strong></td>
<td>Ignore stuttering</td>
<td>1.3</td>
<td>6.3</td>
<td>92.5</td>
</tr>
<tr>
<td></td>
<td>I should help</td>
<td>32.9</td>
<td>29.1</td>
<td>37.9</td>
</tr>
<tr>
<td></td>
<td>Fill-in words</td>
<td>72.5</td>
<td>21.3</td>
<td>6.25</td>
</tr>
<tr>
<td></td>
<td>Say “slow down” or “relax”</td>
<td>85</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Make a joke</td>
<td>97.5</td>
<td>2.5</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Should hide their stuttering</td>
<td>92.5</td>
<td>6.2</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Distance/Sympathy</strong></td>
<td>Feel comfortable</td>
<td>7.5</td>
<td>35</td>
<td>57.5</td>
</tr>
<tr>
<td></td>
<td>Feel pity</td>
<td>63.8</td>
<td>18.8</td>
<td>17.5</td>
</tr>
<tr>
<td></td>
<td>Feel impatient</td>
<td>72.5</td>
<td>15</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Concerned if doctor stuttered</td>
<td>92.4</td>
<td>3.8</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Concerned if neighbor stuttered</td>
<td>96.2</td>
<td>2.5</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>Concerned in sibling stuttered</td>
<td>83.5</td>
<td>2.5</td>
<td>13.9</td>
</tr>
<tr>
<td></td>
<td>Concerned if I stuttered</td>
<td>46.8</td>
<td>18.9</td>
<td>34.1</td>
</tr>
<tr>
<td><strong>Knowledge/Experience</strong></td>
<td>Personal experience</td>
<td>37.5</td>
<td>3.8</td>
<td>58.8</td>
</tr>
</tbody>
</table>
Table 4.2—Continued

<table>
<thead>
<tr>
<th>Knowledge Source</th>
<th>TV or radio</th>
<th>56.3</th>
<th>11.3</th>
<th>32.5</th>
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<tbody>
<tr>
<td></td>
<td>Print</td>
<td>56.3</td>
<td>10</td>
<td>33.8</td>
</tr>
<tr>
<td></td>
<td>Internet</td>
<td>56.9</td>
<td>12.7</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>School</td>
<td>46.8</td>
<td>10.4</td>
<td>42.9</td>
</tr>
<tr>
<td></td>
<td>Specialists</td>
<td>46.2</td>
<td>8.9</td>
<td>44.9</td>
</tr>
</tbody>
</table>

Note: Table 4.2 only includes components of sub-group 2 that were scored using the 1-3 scale.

For the raw data on the 1-3 scale, over 90% of mental health professionals agreed that people who stutter should not try to hide their stuttering and that they would feel comfortable during a conversation with a person who stutters. More than 85% of participants disagreed that using remarks such as “slow down” or making jokes in response to stuttering would be helpful. There was, however, some uncertainty regarding whether filling in words was an appropriate reaction, with over 25% of participants indicating that they agreed or were not sure if they should fill-in words when a person who stutters is experiencing a moment of stuttering. Further, over 80% of participants reported that they would not feel concerned if their doctor, neighbor or sibling stuttered. Contrarily, the raw data indicated that more than half of mental health professionals would feel concerned if they themselves were a person who stutters.

Notably, the data from the items that were not included in Table 4.2 indicated that 95% of the sample of mental health professionals reported either a neutral or positive overall impression of stuttering on a Likert-scale rating of 1-5 (1 = most negative, 5 = most positive). Another important piece of data was related to the amount mental health professionals knew about stuttering on a Likert-scale rating of 1-5 (1 = none, 2 = a little, 3 = some, 4 = a lot, 5 = a great deal). Over half of the sample (52.6%) reported that they knew little to none about stuttering.
Figure 4.2

*Mental Health Professionals’ Reactions Toward People Who Stutter*

![Graph showing reactions towards stuttering]

Figure 4.2 demonstrates that mental health professionals displayed the most positive/neutral reactions toward stuttering in terms of how they would accommodate/help during a conversation with a person who stutters. The sample held negative/inaccurate reactions toward wanting to be a person who stutters themselves, their knowledge of stuttering, and their experience with people who stutter.

4.1.3 Overall Impression of Stuttering

Figure 4.3 displays a web graph to summarize the results from the three sub-groups and 11 components that make up the POSHA-S (see Table 3.2). The sub-groups are labeled with all capital letters (i.e., beliefs about people who stutter, obesity/mental illness, self-reactions to people who stutter) with the corresponding components following each title clockwise. The web
displays the -100 to 100 scale (-100 = most negative attitudes, 0 = neutral, and 100 = most positive attitudes) with the innermost circle representing negative attitudes and the outermost circle representing positive attitudes. The mean scores of the mental health professionals from the current study are represented by the solid black line. The dotted lines indicate ±1 standard deviation of the mean to show the variation in responses.

Figure 4.3

*Mental Health Professionals’ Overall Impression of Stuttering*

Each of the components in the “beliefs” sub-group have positive mean scores with the lowest being “help from” (mean score of 33), meaning that mental health professionals may hold misconstrued beliefs concerning who people who stutter should and should not seek help from, and the highest being “potential” (mean score of 86), indicating that mental health professionals
hold primarily positive beliefs regarding the potential of people who stutter. Within the
“reactions” sub-group, there were positive and negative mean scores, with the lowest being
“knowledge/experience” (mean score of -27) and the highest being “accommodating/helping”
(mean score of 71). These data indicate that the sample of mental health professionals had little
knowledge of and experience with stuttering; however, they demonstrated some understanding of
positive, helpful reactions toward stuttering.

The overall impression of people who stutter was based on the Overall Stuttering Score
(OSS) of the sample of mental health professionals. The OSS was calculated by averaging the
mean of the “beliefs” sub-group and the mean of the “reactions” sub-group, which resulted in an
OSS of 36 on the -100 to 100 scale for this sample. The OSS fell within the positive range,
which indicates overall positive beliefs about and reactions toward stuttering.

4.2. Research Aim Two: To investigate if and how familiarity with stuttering predicts mental
health professionals’ beliefs about, reactions toward, and overall impression of stuttering

During the POSHA-S portion of the survey, participants were asked to select all that
apply on a scale of 1-5 (1 = nobody, 2 = acquaintance, 3 = close friend, 4 = relative, 5 = me)
regarding people who stutter that they have known throughout their lives. The highest number
selected by each participant served as their familiarity score for regression analyses. Of the 80
participants, 73 participants provided a response; thus, meeting the minimum number of
participants required for the regression analysis as indicated by the power analysis. Figure 4.4
displays the distribution of familiarity scores across participants. In general, the sample of mental
health professionals had low levels of familiarity with people who stutter, as indicated by 67% of
participants reporting that they either never met a person who stutters or only knew of an
acquaintance who stutters.
Three separate multiple linear regressions were conducted to investigate the extent familiarity with stuttering predicted the outcome variables of interest, including beliefs about, reactions toward, and overall impressions of stuttering, respectively. Age was included as a covariate in each of the three models because it has shown to be a determinant of attitudes toward stuttering in previous research (Hulit & Wirtz, 1994). The outcome variables, which were each initially on a -100 (most negative) to 100 (most positive) scale, were transformed to have a mean of zero and standard deviation of one to promote interpretability of beta values. The assumptions for each regression were met, including linearity, homoscedasticity, independence of residuals, and normality.
In the model predicting reactions toward stuttering, familiarity with stuttering was a significant predictor ($\beta = .36, p < .001$), such that higher levels of familiarity with stuttering predicted more positive reactions to stuttering. Familiarity with stuttering did not predict beliefs about stuttering or overall impressions of stuttering in their respective models ($p > 0.05$). Age was not a significant predictor in any model ($p > 0.05$).

4.3 Research Aim Three: To determine what mental health professionals need to know about stuttering in order to provide more effective services

The following sections contain a summary of the responses to the six open-ended questions at the end of the survey.

4.3.1 Open-Ended Question One: If you had to estimate, how many people who stutter have you worked with clinically?

Of the 80 total participants, 70% reported having experience providing therapy services to at least one client who stutters, 28.8% of participants indicated that they had worked with zero people who stutter, and 1.3% did not respond.

4.3.2 Open-Ended Question Two: Did the topic of stuttering arise in your conversations with clients who stutter and, if so, in what ways and how did you respond?

Out of the 56 participants that reported having experience working with people who stutter clinically, 34 participants (61%) stated that the topic of stuttering was either discussed or mentioned in therapy sessions, 19 participants (34%) reported that stuttering did not arise as a topic of conversation, and 3 participants (5.4%) did not provide a response.

Of the 34 participants that participated in a conversation about stuttering with a client, 11 participants (32.4%) mentioned that the emotions related to stuttering were specifically discussed in therapy. For instance, responses mentioned that they discussed “ways to slow down and reduce anxiety,” “the impact of stuttering on emotional, cognitive, and somatic experiences,” and “emotion connected to stuttering.” The remaining 23 participants (67.6%) indicated that
stuttering was not a topic that was focused on during therapy sessions, meaning that the client may have mentioned to the therapist that they stutter; however, a conversation regarding the impact of stuttering on the client’s life did not ensue.

The group of 34 participants who had participated in a conversation about stuttering with a client who stutters provided further details about how they responded to their clients during the conversation. The most commonly reported response was reassurance, with 19 participants mentioning that they reassured their clients by telling them it was fine to “take their time” when communicating. A group of 10 participants mentioned that they inquired further about the client’s personal experience of stuttering. For example, they asked about how stuttering affected relationships in their life. The next most frequent response was active listening, with 10 participants reporting that they used active listening skills in response to conversation about stuttering. Eight participants mentioned that they relied on patience. The remaining responses were less common among the sample, with 2 participants stating that they reacted neutrally to conversations about stuttering and 2 participants mentioning that they collaborated with a speech-language pathologist about addressing stuttering with a client.

4.3.3 Open-Ended Question Three: What were the supports, if any, that you’ve had to provide effective services to people who stutter?

Fifty-five participants of the 80 total participants provided a response to the question. Of the 55 participant responses, 69% of participants indicated that there was at least one support in place and 30.1% of participants shared that they had no supports to provide effective services to people who stutter. The most prevalent support mentioned was support from other professionals, with 21 participants reporting that they received help from speech-language pathologists or other professionals (e.g., case managers, occupational therapists). The next most commonly identified support was counseling strategies, with 18 participants mentioning that they used interventions,
such as anxiety-based treatment, cognitive behavioral therapy, mindfulness, meditation, and grounding practices to help clients who stutter cope with stress.

Six participants mentioned that they viewed disability services, such as Section 504 Plans and Individualized Education Programs (IEPs), as supports because it qualified students who stutter to receive mental health services. Another 6 participants mentioned that they provided emotional support to clients who stutter, 5 participants indicated that they used patience as a support, and 1 participant mentioned that they had a stuttering handout in their office to use as a support.

4.3.4 Open-Ended Question Four: What are the barriers, if any, that you perceive in providing effective services to people who stutter?

Sixty-one participants responded to the question out of the 80 total participants. Out of the 61 respondents, 77% recorded at least one barrier and 22.9% mentioned that there were no barriers to providing effective services to people who stutter. The most predominant barrier indicated was lack of knowledge and/or understanding about stuttering, with 25 participants stating that they lack knowledge on how to be most helpful to clients who stutter and/or lack understanding of the causes, treatment, and prognoses for people who stutter. The next most frequently reported perceived barrier was related to clients’ personal feelings regarding their stuttering, with 12 participants sharing the view that client embarrassment, shame, self-consciousness, and/or nervousness may prevent the client from discussing stuttering and/or emotions related to stuttering during therapy sessions.

There were 10 participants who reported communication as a barrier, including their own impatience with communication and rushing the person who stutters. Another barrier mentioned was the logistics of therapy services, with 7 participants indicating that time, insurance, and/or cost may be a barrier in providing effective services to people who stutter. Lastly, 6 participants
identified lack of resources as a barrier, including resources for mental health professionals to use when working with people who stutter and/or resources for mental health professionals to provide to their clients who stutter.

4.3.5 Open-Ended Question Five: How did you respond to moments of stuttering in sessions? What strategies did you use that you think were or were not helpful to the client as they were stuttering?

Fifty-one of the 80 total participants responded to the question. A majority of participants, 31 participants, identified patience as a helpful strategy during moments of stuttering in sessions. More specifically, 6 of those participants stated that it was helpful to avoid interrupting the client during moments of stuttering to show patience. Another commonly reported helpful strategy for moments of stuttering was active listening, with 19 participants mentioning that they waited, listened, summarized what the client said, and asked for clarification when needed.

A sum of 7 participants mentioned that acceptance was a helpful strategy to use during moments of stuttering. For example, participants mentioned that they “accepted the stuttering” and reminded clients that it was “not a problem at all.” They reported providing encouragement, reassurance, validation, and empathy in response to moments of stuttering. Another helpful strategy was to not rush the speaker by “remaining calm” and “slowing down,” which was reported by 5 participants. Four mental health professionals stated that they remained nonjudgmental and reminded clients that they were working in a “safe environment in which they were free to communicate in any way.”

A smaller group of 3 participants reported that building rapport was a helpful strategy for responding to stuttering in sessions. They felt that rapport was helpful because, over time, it allowed the client to feel more comfortable discussing stuttering, which had been a topic that was previously untouched. A group of 3 participants indicated that they filled in their clients' words
during moments of stuttering; however, they reported that they were aware that this was not a helpful strategy, and they did not do it purposefully nor with bad intentions. The remainder of responses were not as prevalent among the sample, with 2 participants mentioning that ignoring the stuttering was a helpful strategy and 2 participants stating that providing relaxation exercises (e.g., breathing, mindfulness) was a helpful strategy.

4.3.6 Open-Ended Question Six: What did you wish you knew about communicating with a person who stutters to be more effective when working with clients who stutter?

Out of the 80 total participants, 64 participants responded to the question. Eighteen mental health professionals mentioned that they would like to gain a general knowledge of stuttering. Specifically, participants mentioned that they would like to know more about causes and treatment for stuttering. Many mental health professionals indicated that they would like to know appropriate responses to stuttering, with 16 participants mentioning that they would like more information on how to respond in moments of stuttering to prevent doing harm, proper etiquette, etc. Another common response was 15 participants reporting that they would like to know best practices within their clinical scope for providing services to people who stutter, such as how to address stuttering clinically.

Ten participants stated that they would like to know more about how people who stutter feel, such as how people who stutter would like to be supported and their emotions regarding stuttering. Another frequent response was 10 participants indicating that they would like to know more about how to make clients who stutter feel comfortable when working with them clinically. For instance, participants reported that they were interested in learning what they can do to reduce worry and judgement.

There were 8 participants who reported that they would like more information regarding stuttering resources, stuttering research, and stuttering-specific training. A smaller sum of
participants, 4 participants, stated that they would like to know whether they should openly discuss stuttering with clients who stutter. The same number of participants, 4 participants, reported that they were open to learning anything about stuttering. On the other hand, 4 participants mentioned that they were unsure what they wanted to learn and/or were not interested in learning about stuttering.
CHAPTER V
DISCUSSION

The purpose of the current study was to gain a deeper understanding of mental health professionals' knowledge of stuttering and determine areas in which they may need more support in effort to better inform future collaboration between speech-language pathologists and mental health professionals. It was determined that mental health professionals reported generally positive beliefs about, reactions toward, and overall impression of stuttering; however, uncertainty regarding casual factors of stuttering and affirming responses to stuttering were evident. Results also indicated that familiarity with stuttering predicted reactions toward stuttering among mental health professionals, such that more familiarity with people who stutter was associated with more positive reactions to stuttering.

This chapter is organized into four sections. The first section discusses how mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering compares to the existing literature on helping professionals' attitudes toward stuttering. The second section delves into mental health professionals’ perceived barriers and supports to providing services to people who stutter. The third section discusses familiarity as a predictor of reactions toward stuttering. The fourth section explains the limitations of the current study and provides direction for future research.

5.1 Mental Health Professionals’ Beliefs, Reactions, and Overall Impression of Stuttering Versus Perceptions of Other Helping Professionals

Living with the stigma associated with stuttering is thought to contribute to increased vulnerability to mental health challenges among people who stutter (Blumgart et al., 2010a;
It is possible that those working with people who stutter may be helpful and affirming; however, they could be unintentionally stigmatizing people who stutter as well given that they are operating within the context of a broader society where stuttering is generally stigmatized. Mental health professionals are exposed to the same stigmatizing environment as the rest of the world, for example, through negative stereotypes about people who stutter depicted in the media (Azios et al., 2020; Johnson, 2008). Although often unknowingly, mental health professionals may hold stereotypes about stuttering, which in turn may adversely impact their services for people who stutter. The current study examined mental health professionals' explicit biases toward stuttering. Previous research, however, has shown that people are not always aware of or do not always report the biases they hold about people who stutter (Walden et al., 2020). Thus, the current study only documents explicit attitudes (conscious biases) toward stuttering and more research is needed on implicit attitudes (unconscious biases).

Ginsberg and Wexler (2000) wrote an education-based article to provide information about stuttering for counselors to improve their relationships with clients who stutter. The authors suggested that mental health professionals might hold negative assumptions about stuttering because prior research had consistently reported that the general public and other helping professionals held negative attitudes toward people who stutter. However, the authors did not provide data measuring if mental health professionals held negative beliefs about stuttering. The current study documented data regarding mental health professionals’ attitudes toward stuttering that was not consistent with the assumptions from Ginsberg and Wexler. Mental health professionals in the current study demonstrated positive beliefs about, reactions toward, and overall impression of stuttering. Although the sample of mental health professionals
in the current study endorsed positive attitudes toward stuttering overall, areas in which they may benefit from more education were also identified. Specifically, the majority of mental health professionals did not denounce the stereotype that people who stutter are nervous and shy, which is consistent with negative stereotypes about people who stutter that have shown to be held among teachers (Abrahams et al., 2016; Crowe & Walton, 1981; Yeakle & Cooper, 1986) and other helping professionals (Beste-Guldborg et al., 2015; Boyle, 2014; Hurst & Cooper, 1983).

It is also worthwhile to compare results from the current study to those reported by Beste-Guldborg and colleagues (2015), who used the POSHA-S to measure attitudes toward stuttering among a broad range of mental health professionals (i.e., office secretaries, mental health aides, licensed clinical social workers, addiction counselors, licensed clinical professional counselors, medical social workers, psychologists, and psychiatrists). The primary difference between their study and the current study was that we defined mental health professionals more narrowly and included only counselors, psychologists, and social workers.

Similar to the results of the current study, Beste-Guldborg and colleagues also found that mental health professionals held overall positive attitudes toward stuttering. More specifically, both samples demonstrated the highest positive beliefs regarding the potential of people who stutter. This similarity may exist because, given the nature of their work, mental health professionals are likely well-intentioned and desire the best for their clients. Both studies also found that mental health professionals exhibited some evidence of stuttering stereotypes, though, the studies differed in the specific areas where stereotypes were present.

The stuttering stereotype described by Beste-Guldborg and colleagues was “unease with stuttering” due to a social distance/sympathy mean score of -15 on the -100 to 100 scale (-100 = most negative attitudes, 0 = neutral, and 100 = most positive attitudes). In contrast, the current
study demonstrated higher levels of comfort with stuttering, as evidenced by over 90% of participants reporting that they feel comfortable with stuttering, which resulted in a social distance/sympathy mean score of 44 on the -100 to 100 scale. The current study may have demonstrated higher levels of comfort working with people who stutter because the sample included clinical mental health professionals only. Clinical mental health professionals might feel more comfortable working with people who stutter because their education and training may better prepare them to utilize active listening and counseling strategies. Unlike some of the mental health professionals included in Beste-Guldborg's study (i.e., office secretaries).

Another area of misunderstanding found among mental health professionals in the current study pertained to who they perceived that people who stutter should seek help from, which is an area of concern because research shows that self-help for people who stutter can be extremely beneficial. Self-help, such as stuttering support organizations, is associated with decreased negative life impact of stuttering (Gerlach et al., 2019; Trichon & Tetnowski, 2011) and increased positive feelings about stuttering (e.g., feeling empowered; Tichenor & Yaruss, 2019). One reason why mental health professionals might not think that people who stutter would be helpful to each other is because they may assume that it would be best to ignore stuttering. In the present study, 98.8% of mental health professionals agreed that they would react to stuttering by ignoring it; therefore, they may not understand the benefit of people who stuttering helping other people who stutter. It may also indicate that mental health professionals are unaware of stuttering-specific self-help organizations. Speech-language pathologists could support mental health professionals by making them aware of various support organizations (e.g., FRIENDS: The National Association of Young People Who Stutter, NSA: National Stuttering Association, SAY: The Stuttering Association for the Young). Referring people who stutter to self-help
groups, could be a helpful and evidence-based way that mental health professionals could support people who stutter.

Mental health professionals in the present study also demonstrated uncertainty regarding the causal factors of stuttering. For instance, 65.1% of participants did not affirm that stuttering is caused by genetic inheritance and 46.3% of mental health professionals reported belief of the stereotype that stuttering may be caused by emotional trauma. It has been shown that misunderstanding of the causal factors of stuttering may lead to increased stigmatization of stuttering (Boyle, 2016a; Boyle, 2016b). Boyle (2016a) conducted research to examine the relationships between casual attributions for stuttering (i.e., personal perceptions of causality) and psychological well-being for adults who stutter. An example of a causal attribution included in Boyle’s study was external control, which was defined as the cause of stuttering being something over which others have “control” rather than being caused by genetics. Boyle found that people who stutter who made casual attributions that were more external for stuttering reported higher levels of anxiety and depression. Boyle (2016b) further examined casual attribution by investigating the impact it had on stigmatizing attitudes toward people who stutter. Boyle determined that those who falsely believed stuttering to be caused by psychobehavioral factors showed higher levels of blame directed at people who stutter. Therefore, if mental health professionals were to endorse the false belief that stuttering is caused by emotional trauma, they may unknowingly assume that mental health services could decrease stuttering. This may unintentionally enforce clients who stutter to perceive casual attributions as external, which would result in increased anxiety and depression rather than the alleviation of anxiety and depression.
Despite evidence of uncertainty about stuttering, the current study affirmed that mental health professionals were interested in improving their understanding about stuttering, particularly the cause of stuttering, appropriate responses to stuttering, best practices for working with clients who stutter, and how people who stutter would like to be supported in a therapeutic setting. This indicates that mental health professionals may be unsure about how stuttering does and does not fall within their scope of practice. However, they are interested in learning how to improve their understanding in order to prevent harm.

5.2 Mental Health Professionals’ Perceived Supports and Barriers for Providing Equitable Mental Health Services for People Who Stutter

The current study provided a summary of a variety of mental health professionals’ perceived barriers and supports for providing equitable services for people who stutter. The majority of mental health professionals viewed lack of knowledge about stuttering as a predominant barrier in equitable service provision. Despite this, mental health professionals demonstrated understanding of how to interrupt this barrier, such as through collaboration with speech-language pathologists.

Most mental health professionals identified other professionals as support, such as speech-language pathologists, when providing services for people who stutter, which emphasizes the importance of interprofessional practice between the two professions to bridge the gap regarding lack of knowledge about stuttering. There is considerable evidence in the literature around the need for collaboration between mental health professionals and speech-language pathologists (Hoff & Unger, 2021; Iverach et al., 2009; Lindsay & Langevin, 2017; Sandberg et al., 2021; Strong & Randolph, 2021; Wertheimer et al., 2008). In particular, Lindsay and Langevin (2017) conducted a qualitative study to gain insight on the value of integration of psychological counseling into stuttering treatment programs from the perspective of people who...
stutter. The researchers found that some people who stutter may benefit from counseling as an adjunct to speech therapy because it was found to be beneficial in relieving personal distress. Thus, interprofessional practice between mental health professionals and speech-language pathologists is critical.

Another support mentioned by mental health professionals in the current study was counseling strategies, such as anxiety-based treatment and cognitive behavioral therapy, to support conversations about stuttering with clients. Conversely, mental health professionals indicated that clients’ personal feelings regarding their stuttering, such as shame or embarrassment, may hold the client back from openly discussing stuttering with a mental health professional. This barrier is consistent with Lindsay and Langevin’s (2017) study where they found that some people who stutter identified unwillingness to disclose stuttering with a therapist as a barrier to participating in psychological counseling. It is to no surprise that some people who stutter may feel hesitant toward disclosing stuttering due to the fear of being stigmatized. Thus, it is important for mental health professionals to be aware of appropriate responses to stuttering in order to create an open and comfortable environment.

The reported supports and barriers of the current study may better inform collaboration among speech-language pathologists and mental health professionals by providing speech-language pathologists with insight into the perspective of mental health professionals. It may be most helpful for speech-language pathologists to provide mental health professionals with information regarding appropriate responses to stuttered speech, which in turn may help both the therapist and the client feel more comfortable openly discussing stuttering, should there be a need or desire to do so.
5.3 *Familiarity with Stuttering as a Predictor of Reactions Toward Stuttering*

Familiarity has been found to be correlated with a decrease in stigma associated with stuttering (Boyle et al., 2016). Therefore, the current study aimed to manipulate familiarity to determine if and how familiarity predicted beliefs about, reactions toward, and overall impression of stuttering. The current study found that mental health professionals’ familiarity with stuttering predicted their reactions toward stuttering, but it did not predict beliefs about or overall impression of stuttering. Thus, the more experience mental health professionals have communicating with people who stutter, the better they may be able to provide more positive reactions toward stuttering. This could be because the more familiarity one has communicating with a person who stutters, the more desensitized the listener becomes to stuttered speech, and desensitization has been found to be associated with improved management of reactions toward stuttering (Berquez & Kelman, 2018).

On the other hand, familiarity may not influence their beliefs about or impression of stuttering. This could be because communicating with a person who stutters does not mean that the conversation surrounds what stuttering *is*, which could leave both communication partners exiting the conversation with the same amount of general knowledge of stuttering (e.g., causes of stuttering) as before the conversation began. Therefore, increasing familiarity with stuttering does not necessarily result in increased positive beliefs about stuttering (e.g., casual factors). If beliefs about stuttering are unchanged, then one’s overall impression of stuttering may not change as well.

Mental health professionals who have more experience with people who stutter may be best suited to work with this community as they demonstrate more positive reactions to stuttering. Similarly, mental health professionals who would like to improve their positive reactions toward
stuttering could be recommended to increase their familiarity, such as through meeting more people who stutter, in effort to increase their positive reactions.

5.4 Limitations and Future Research

The current study’s findings were limited due to differing amounts of participants for each of the three types of mental health professionals included (i.e., counselors, psychologists, social workers) and uneven distribution in terms of geographic location. There were unequal sample sizes of the mental health professionals included, with 63.8% of respondents self-reporting as social workers. Therefore, findings may not best represent attitudes among counselors and psychologists. Although the study was open to the Midwest region of the United States, 86.3% of respondents were from Michigan, which may not be representative of the Midwest region as a whole. In addition, there were no measures for implicit bias included in the current study, thus the findings were based on explicit bias only and may have motivated the way participants responded to the survey questions. Another limitation was the sample’s low amount of familiarity with stuttering. Over half of the sample, 67% of participants, indicated that they either never met a person who stutters or only had encountered an acquaintance who stutters, which may have impacted familiarity as the predictor variable for beliefs, reactions, and overall impression of stuttering.

Future research should consider the prospective of people who stutter and their experiences with mental health professionals, such as what they would want mental health professionals to know about stuttering. It is important to consider the lived experiences of people who stutter to improve the therapeutic relationship and outcomes of mental health services. Additionally, future research should identify the best practices for increasing mental health professionals’ familiarity with stuttering. Familiarity with stuttering has been shown to decrease
stigma towards stuttering (Boyle et al., 2016) and the current study found that increased familiarity with stuttering predicts positive reactions toward stuttering among mental health professionals. Therefore, it would be beneficial to understand the most efficient and effective way for mental health professionals to increase familiarity with stuttering in order to increase positive reactions toward stuttering. Furthermore, future research should further investigate interprofessional education among speech-language pathologists and mental health professionals, such as the incorporation of communication disorders training in the mental health professional discipline. It may help to better prepare mental health professionals to communicate with people who stutter and other people with communication differences.

5.5 Conclusion

The purpose of the study was to better understand mental health professionals’ knowledge of stuttering and gain insight into areas where they may need more support. Some people who stutter are vulnerable to mental health adversity likely due to the stigma associated with stuttering, and thus, may benefit from mental health services. It is important to understand mental health professionals’ beliefs about, reactions toward, and overall impression of stuttering because of the important role they play or could play in the lives of people who stutter.

From the 80 quantitative survey responses, it was found that mental health professionals held an overall positive impression of stuttering; however, they may benefit from increased familiarity with stuttering to improve their understanding of the most appropriate ways to respond during moments of stuttering. Mental health professionals also expressed interest in learning more regarding general information about stuttering, best practices for working with clients who stutter, and how to make clients who stutter feel most comfortable in the therapy room. The findings from the current study may help guide collaboration between speech-
language pathologists and mental health professionals in the direction of providing more equitable services for people who stutter.
REFERENCES


National Alliance on Mental Illness. (2020, April). *Types of Mental Health Professionals.*
https://www.nami.org/About-Mental-Illness/Treatments/Types-of-Mental-Health-Professionals


APPENDIX A

Recruitment Email Script
Hello,

My name is Elise Nasser, and I am a graduate student at Western Michigan University working under the mentorship of Dr. Hope Gerlach-Houck. I am currently working towards completion of my master’s thesis focused on exploring mental health professionals’ opinions about a number of human attributes, one of which is stuttering. We are recruiting 80 mental health professionals (counselors, psychologists, and social workers) to take an 8-10 minute survey and participants who complete the survey in full will be eligible for compensation of a $5.00 Amazon or Starbucks gift card.

Please email wmuelsenasser@gmail.com if you are interested in taking part in the survey.

Best,

Elise Nasser
APPENDIX B

Recruitment Text Message for Personal Contacts
Hi,

I am currently working towards completion of my master’s thesis focused on exploring mental health professionals’ opinions about a number of human attributes, one of which is stuttering. I am recruiting 80 mental health professionals (counselors, psychologists, and social workers) to take an 8-10 minute survey and participants who complete the survey in full will be eligible for compensation of a $5.00 Amazon or Starbucks gift card. Please forward this email to any contacts that may be interested.

Individuals who are interested should email wmuelisenasser@gmail.com for more information.

Thank you!
APPENDIX C

Recruitment Flyer
Counselors, Psychologists, and Social Workers... This is for you!

I am recruiting 80 mental health professionals (counselors, psychologists, and social workers) to help me complete my master’s thesis! Participants will receive a $5.00 gift card!

STUDY DESCRIPTION:
The study is exploring mental health professionals’ opinions about a number of human attributes, one of which is stuttering.

WHAT IS INVOLVED?:
Completion of an 8-10 minute survey.

WHO CAN PARTICIPATE?
To participate, you must be...
- A certified counselor, psychologist, or social worker
- Currently living in the Midwest region of the United States
- Proficient in English

WHAT’S IN IT FOR ME?
Participants who complete the full study will receive a $5.00 Starbucks or Amazon gift card!

INTERESTED?
Please contact Elise Nasser at wmuelisenasser@gmail.com for more information
APPENDIX D

Screening Questionnaire Email Script
Hello,

Thank you so much for your interest. We have a few screening questions to assess your eligibility prior to sending the survey. By responding to this email, you are indicating your consent to share the following information:

1. Full name:

2. State of practice:

3. What is your certification? (e.g., LPC, LMFT, LICSW, LCSW, etc.):

4. How did you hear about the study? (Please be as specific as possible):

Best,

Elise Nasser
APPENDIX E

HSIRB Approval
Date: October 6, 2021

To: Hope Gerlach, Principal Investigator
    Elise Nasser, Student Investigator for thesis

From: Amy Naugle, Ph.D., Chair

Re: IRB Project Number 21-10-02

This letter will serve as confirmation that your research project titled “Mental Health Professionals Beliefs” has been approved under the exempt category of review by the Western Michigan University Institutional Review Board (IRB). The conditions and duration of this approval are specified in the policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes to this project (e.g., add an investigator, increase number of subjects beyond the number stated in your application, etc.). Failure to obtain approval for changes will result in a protocol deviation.

In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the IRB for consultation.

The Board wishes you success in the pursuit of your research goals.

A status report is required on or prior to (no more than 90 days) October 5, 2022 and each year thereafter until closing of the study. The IRB will send a request.

When this study closes, submit the required Final Report found at https://wmich.edu/research/forms.

Note: All research data must be kept in a secure location on the WMU campus for at least three (3) years after the study closes.
APPENDIX F

Online Consent Form
Western Michigan University

Department of Speech, Language and Hearing Sciences

Principal Investigator: Hope Gerlach-Houck, Ph.D., CCC-SLP
Student Investigator: Elise Nasser, B.A.

Title of Study: Mental Health Professionals’ Beliefs about, Reactions toward, and Overall Impression of Stuttering

You are invited to participate in this research project titled "Mental Health Professionals’ Beliefs about, Reactions toward, and Overall Impression of Stuttering’’

STUDY SUMMARY: This consent form is part of an informed consent process for a research study and it will provide information that will help you decide whether you want to take part in this study. Participation in this study is completely voluntary. The purpose of the research is to learn about mental health professionals’ opinions about a number of human attributes, one of which is stuttering, and will serve as Elise Nasser’s thesis for the requirements of the Master’s in Speech-Language Pathology. If you take part in the research, you will be asked to rate each item on the survey as it relates to you and your experience with stuttering. You will also be asked to write about any experience you may have had working clinically with a person who stutters. Your time in the study will take approximately 8-10 minutes. Possible risk and costs to you for taking part in the study may be discomfort from answering sensitive questions and time to complete the survey. There are no direct benefits to participants. Participating in this study may contribute to the knowledge base of establishing a more trusting environment. There is a potential to affect positive change and build knowledge. Your alternative to taking part in the research study is not to take part in it.

The following information in this consent form will provide more detail about the research study. Please ask any questions if you need more clarification and to assist you in deciding if you wish to participate in the research study. You are not giving up any of your legal rights by agreeing to take part in this research or by signing this consent form. After all of your questions have been answered and the consent document reviewed, if you decide to participate in this study, participation will be used in lieu of signing this consent form.

What are we trying to find out in this study?
The current study aims to gain a better understanding of mental health professionals’ opinions about stuttering as well as their experiences working with clients who stutter clinically.

Who can participate in this study?
To participate in the study, you must meet the criteria of (1) currently work or previously worked as a certified counselor, psychologist, or social worker, (2) living in the Midwest region of the United States, and (3) proficient in English, as assessed by self-report.

Where will this study take place?
The study will take place during a one-time Qualtrics survey online.

**What is the time commitment for participating in this study?**
The survey will take approximately 8-10 minutes to complete.

**What will you be asked to do if you choose to participate in this study?**
If you choose to participate in the study, you will be asked a series of questions that you may answer to the extent that you feel comfortable. You will provide basic demographic information (e.g., age, ethnicity, etc.) and take a standardized survey regarding opinions about a number of human attributes, one of which is stuttering.

**What information is being measured during the study?**
The survey information will be used to calculate scores related to beliefs about, reactions toward, and overall impression of a number of human attributes. The open-ended responses will be analyzed for themes.

**What are the risks of participating in this study and how will these risks be minimized?**
The possible risk to you for taking part in the study may be discomfort from answering sensitive questions. This risk will be minimized by allowing the ability to skip questions if you do not feel comfortable answering.

**What are the benefits of participating in this study?**
Participating in this study may contribute to the knowledge base of establishing a more trusting environment. There is a potential to affect positive change and build knowledge.

**Are there any costs associated with participating in this study?**
There are no costs of participating in the study.

**Is there any compensation for participating in this study?**
After completion of the Qualtrics survey, you will be provided with a link to a separate Qualtrics survey to enter for compensation. In the separate survey, you will provide your full name (including credentials), the state in which you work, your mailing address, and your email address. You will then select the type of gift card you would prefer to receive between the choices of Starbucks or Amazon. Participants who complete the survey will be sent a $5.00 gift card of their choice (Starbucks or Amazon).

**Who will have access to the information collected during this study?**
The information collected in the survey will be de-identified for confidentiality. The information will be stored in secure One Drive files that only the advisor and approved researchers will have access to. The data will be presented through a thesis defense and presentation at a conference.

**What will happen to my information or biospecimens collected for this research project after the study is over?**
After information that could identify you has been removed, de-identified information collected for this research may be used by or distributed to investigators for other research without obtaining additional informed consent from you.
What if you want to stop participating in this study?
You can choose to stop participating in the study at any time for any reason. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience NO consequences either academically or personally if you choose to withdraw from this study. The investigator can also decide to stop your participation in the study without your consent.

Should you have any questions prior to or during the study, you can contact principal investigator, Hope Gerlach-Houck, at wmustutteringlab@gmail.com or the student investigator, Elise Nasser, at wmuelsenassser@gmail.com. You may also contact the Chair, Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

This study was approved by the Western Michigan University Institutional Review Board (WMU IRB) on October 6, 2021.

Participating in this survey online indicates your consent for use of the answers you supply for research purposes.

This consent document has been approved for use for one year by the Western Michigan University Institutional Review Board (WMU IRB) as indicated by the stamped date and signature of the board chair in the upper right corner.

Add buttons to click:

I agree to participate in this research study  (Survey following upon clicking)
I do not agree to participate in this research study  (Browser closes)
APPENDIX G

Email Script for Gift Card Recipients
Thank you for completing our study! You are eligible for a $5.00 gift card. Can you please confirm that the address you provided below is correct and that you wish to receive a gift card?

[Insert mailing address]

Thank you for your participation in my survey!

Best,

Elise Nasser
APPENDIX H

Qualtrics Survey - Gift Card Incentive
Please provide your full name, including credentials.
For example: John Smith, M.A., LPC

First name

Last name

Credentials

Please provide the name of the state in which you practice:


Please provide your current mailing address:

Address

City

State

Zip code

Please provide your current email address:


Would you prefer to receive a $5.00 gift card for Starbucks or Amazon? (Select one)

○ Starbucks

○ Amazon
APPENDIX I

POSHA-S Scoring Procedures
For the first section, participants answered questions related to income, health and abilities, life priorities, and items under sub-group 3 (i.e., overall impression, want to be/have, amount known) on a scale of 1-5 (1 = most negative, 5 = most positive). Any “Not Sure” responses were not counted. The number data for the 1-5 scales was entered as 1-5. The values were converted to the -100 to 100 scale by first subtracting 3 and then multiplying by 50.

For the second section, participants rated stuttering, obesity, left handedness, mental illness, and intelligence on a scale from 1-5 (1 = most negative, 5 = most positive). The number data for the 1-5 scales was entered as 1-5. Any “Not Sure” responses are not counted. The values were converted to the -100 to 100 scale by first subtracting 3 and then multiplying by 50.

At the end of the second section, participants were asked to select all that apply in terms of people they have known who stutter, have a mental illness, are obese, are left-handed, are and are intelligent. It was scored from a 0-100 scale in which Nobody = 0, Acquaintance = 5, Close Friend = 20, Relative = 10, Me = 60, and Other = 5. The values were converted to the -100 to 100 scale by first subtracting 50 and then multiplying by 2.

For the third section, participants answered questions related to their understanding of stuttering, their beliefs about stuttering, and their reactions toward stuttering using a scale from 1-3 (1 = no, 2 = not sure, 3 = yes). Any question left blank was not counted. The number data for the 1-3 scales was entered at 1-3. The values were converted to the -100 to 100 scale by first subtracting 2 and then multiplying by 100.