

St. Cloud State University

theRepository at St. Cloud State

Culminating Projects in Communication
Sciences and Disorders

Department of Communication Sciences and
Disorders

5-2020

Changing college student attitudes toward people who stutter

Hailey Nelson

hmnelson@go.stcloudstate.edu

Follow this and additional works at: https://repository.stcloudstate.edu/csd_etds

Recommended Citation

Nelson, Hailey, "Changing college student attitudes toward people who stutter" (2020). *Culminating Projects in Communication Sciences and Disorders*. 6.

https://repository.stcloudstate.edu/csd_etds/6

This Thesis is brought to you for free and open access by the Department of Communication Sciences and Disorders at theRepository at St. Cloud State. It has been accepted for inclusion in Culminating Projects in Communication Sciences and Disorders by an authorized administrator of theRepository at St. Cloud State. For more information, please contact tdsteman@stcloudstate.edu.

Changing College Student Attitudes toward People Who Stutter

by

Hailey M. Nelson

A Thesis

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree of

Master of Science

in Communication Sciences and Disorders

May, 2020

Thesis Committee:

Janet Tilstra, Chairperson

Teri Estrem

Kelly Branam Macauley

Abstract

Background: Stuttering is a disorder of speech fluency “in which a speaker typically repeats or prolongs parts of words or gets stuck on words.” (St. Louis, 2012a). Consequently, people who stutter (PWS) usually have difficulty expressing their thoughts verbally. PWS may experience difficulties participating fully in society due to self-perceived or societal barriers. The attitudes of people who do not stutter toward PWS are important in understanding the types and degree of barriers in PWS’ lives. Extensive research has been completed on attitudes about PWS, yet limited evidence describes how to best modify college student attitudes toward PWS. Changes in attitudes toward PWS have been shown to change in a positive direction following an intervention about stuttering. Podcasting is a relatively new format of communication where personal stories can be shared in brief format. Utilizing a podcast to expose listeners to stuttering has the potential to influence a powerful change in attitudes of college students towards PWS by allowing them to hear the voice and personal story of a PWS. **Aim:** The purpose of this study was to identify and examine whether college students who do not stutter exhibit an attitude change toward PWS when participating in a) an emotional, humorous, and educational podcast or b) a written dictation of the same podcast. In addition, we examined if attitude changes are similar across these two formats and how the attitudes of students in the present study towards PWS compared with other student groups in the Public Opinion Survey of Human Attributes – Stuttering (POSHA-S) international database. **Method and Procedure:** Thirty-nine college students participated in this quasi-experimental group study. One class of students listened to a 30-minute podcast interview in class and the control group read a written dictation of the podcast in class. Participant attitudes of stuttering were measured one week prior to and one week following the intervention using the POSHA-S. Immediately after the intervention, participants completed select questions from a subscale section of the POSHA-S related to Self-Reaction towards PWS. Statistical analysis was completed comparing pre-post outcomes for individuals and groups.

Acknowledgments

This project was accomplished with the continual support of an exceptional group of people. I would like to thank the members of my committee: Dr. Janet Tilstra, Dr. Teri Estrem, and Dr. Kelly Branam Macauley. I would like to thank my thesis advisor, Dr. Tilstra, for her wisdom and advice as it applies to research methodologies and fluency disorders and facilitating my clinical growth throughout this research process. Her expertise in academic writing paired with her continued emotional support provided the platform I needed to push myself to accomplish this goal. I can't thank her enough for serving as a pivotal clinical and research figure that I aspire to one day emulate as a professor. I would like to thank Dr. Estrem for her advice and knowledge as it relates to research and academic writing, and her detailed suggestions that have improved the overall quality of this project. I would like to express my gratitude to Dr. Branam Macauley for her support, guidance, and allowing me to enter her classroom to conduct my research. Her guidance elevated this study by encouraging me to not only identify attitudes of college students and possible biases but attempt to change attitudes and biases. This study would not have been possible without their support.

I would also like to extend my sincerest gratitude to the creator of the POSHA-S and a fundamental resource in my research, Dr. Kenneth St. Louis. He laid the foundational groundwork to facilitate identifying and changing attitudes toward people who stutter internationally that made this research possible. I admire and aspire to mirror his commitment and ingenuity in the field of fluency disorders and speech-language pathology.

Next, I would like to acknowledge my graduate school cohort. Their unwavering encouragement aided me throughout this research process. To my fellow classmate completing a

thesis, Hannah Judovsky, thank you for going through this process with me and for your endless positivity and support. To my fellow cohort members Megan Bartkowski, HannaLee Kingstrom, and Amy Marohl: their humor, friendship, and arduous professional curiosity were vital in each step.

Thank you to my family and friends for their dedication and pride in my research accomplishments. To my mom, dad, and brother for their continued financial and emotional help in my academic journey, I would not be here without them. With each unforeseen road block, I persevered due to the dedicated worth ethic and foundational resilience you emulated for and built in me. A special thanks to my best friend Aspen Doud, for acting as a continual sounding board for research ideas, reading drafts, listening to podcasts, inspiring me through her research, and her continual encouragement.

Table of Contents

	Page
List of Tables	9
List of Figures	10
Chapter 1: Purpose of the Study and Literature Review.....	11
Attitudes Toward PWS.....	12
Impact of Attitudes on PWS.....	14
Romantically.....	16
Vocationally.....	16
Factors Underpinning Negative Stereotypes.....	18
Inference hypothesis.	18
Anchoring-adjustment hypothesis.	18
Media portrayal.....	19
Family and culture.	20
Education and experience with PWS.....	21
General bias.	22
Factors Related to Attitude Change	22
Listener factors.	23
PWS factors.	24

	6
Presentation format factors.....	26
Summary of attitude change factors.	28
Purpose of study.	30
Chapter 2: Methods.....	32
Participants	32
Materials.....	35
Public Opinion Survey of Human	35
Attributes-Stuttering (POSHA-S).....	35
Self-Reactions to PWS.	36
Podcast.....	37
Procedure.....	37
Research Design.....	38
Chapter 3: Results	39
Analysis.....	39
Graphic Profile Visual Comparisons.....	40
Comparison of pre- and post-test.....	40
POSHA-S OSS scores.	40
Comparison of Self-Reaction to PWS subscale	41
POSHA-S OSS to pre-test, post-test, and.....	41

median scores of the international database.	41
Comparison of pre- and post-test POSHA-S OSS	
to the IDM.	43
Comparison of Beliefs about PWS subscale	
POSHA-S OSS to this study's pre-test, post-test, and the IDM.	44
Pre- to Post-Test Score Changes on the POSHA-S OSS by Condition.	45
Comparison of Pre-, Immediate, and Post-Test Scores	
on the Self-Reactions to PWS Subscale.	52
Total Group POSHA-S Trends Compared to International Database.	55
Chapter 4: Results	56
Do College Students Who do not Stutter Show an Attitude	
Change Following the Intervention?	56
How Similar Are Attitude Changes Across the Conditions?	57
Does Including Information on Listener Responsibilities.....	58
in the Intervention Produce a Change in the Self-Reactions to PWS Subscale?	58
How Do the Responses of Students in the Present Study	
Compare with Other Students in the POSHA-S International Database?	60
Limitations	61
Future Directions	62

	8
References	64
Appendix	72
Appendix A: Recruitment and IRB Documentation	72
Consent Form	79
Appendix B: Survey	84
Public Opinion Survey of Human Attributes–Stuttering (POSHA–S).....	86
Pre-survey Amazon gift card drawing.....	95
Amazon gift card drawing.	97
Immediate change of attitudes survey.	98
Podcast transcription.....	106

List of Tables

Table	Page
1. Demographics of Matched Participants	34
2. Mean Pre- and Post-test Scores on the POSHA-S OSS and Subscale Scores	47
3. Self-Reactions to PWS Scores for Pre-test, Immediate, and Post-test	52

List of Figures

Figure	Page
1. Trends for Individual Items within Self-Reactions to PWS POSHA-S Subscale	42
2. POSHA-S Graphic Profile	3
3. Trends for Individual Items within Beliefs about PWS POSHA-S Subscale.....	4
4. Mean Pre- and Post-test POSHA-S OSS Scores	7
5. Mean Pre- and Post-test Beliefs about Obesity/ Mental Illness on the POSHA-S Subscale....	48
6. Mean Pre- and Post-test Beliefs about PWS POSHA-S Subscale.....	49
7. Mean Pre and Post-test Scores on the Self-Reaction to PWS POSHA-S Subscale.....	50
8. Mean Pre-, Immediate-, and Post-test Scores on Self-Reaction to PWS Subscale by Condition.....	53

Chapter 1: Purpose of the Study and Literature Review

The purpose of this study was to identify and examine whether college students who do not stutter exhibit an attitude change toward PWS immediately and one week after participating in either: 1) an emotional, humorous, and educational podcast or 2) a written dictation of the podcast. In addition, we examined if attitude changes are similar across these two formats and how the opinions/ responses of students in the present study compare with other students in the POSHA-S international database.

Stuttering is a disorder of speech fluency:

in which a speaker typically repeats or prolongs (draws out) parts of words or gets stuck or blocked on words. Stuttering is often associated with psychological stress or unpleasant feelings. Finally, the person who stutters often experiences a loss of voluntary control in saying certain words (St. Louis, 2012a, p. 143).

Across all nations and cultures, 1% of the population are people who stutter (PWS) and 5% of people have stuttered at some point in their life. Based on these statistics, in the United States 3.3 million people currently stutter and 16.3 million have stuttered at some point in their life (Manning & DiLollo, 2018). Stuttering is a far reaching and common condition of speech. Individuals who stutter are often subjected to negative stereotyping as, historically, individuals judge one another based on their speech. These judgements have effects, usually negative, on the social, vocational, romantic, and academic lives of PWS.

Trends from the research literature on this topic outline a universal negative perception toward PWS. In this chapter, I review research trends illustrating patterns of perceptions toward PWS. Throughout the literature, researchers use the terms ‘attitudes’ and ‘perceptions’

interchangeably. For the purpose of this research review, the term ‘attitudes’ will be used. An attitude for the purposes of this study is defined as an established way of thinking or feeling about someone, typically reflected in a person's actions. Specifically, I will review attitudes about PWS, how these attitudes are formed, their impact on PWS, the modifiability of these attitudes, and factors contributing to changing attitudes toward PWS. Finally, I will outline my proposed project and how it adds to the literature regarding the identification and modification of attitudes toward PWS.

Attitudes Toward PWS

In the past century researchers have used both qualitative and quantitative tools to measure attitudes toward PWS, such as Likert scales (Hughes, Gabel, & Palasik, 2017), semantic differential scales (Hughes, Gabel, & Palasik, 2017; Mayo, Mayo, Gentry, & Hildebrandt, 2008; Woods & Williams, 1976), interviews (Hughes et al., 2010a; Klompas & Ross 2004), and open-ended questions (Hughes et al., 2010a; Hughes et al., 2010b). A range of groups studied include clinicians, adults, and college students (Doody et al., 1993; Hughes et al., 2017; Snyder, 2001).

Snyder (2001) studied attitudes of speech-language pathologists’ and students in training to become speech-language pathologists toward PWS using the *Clinicians Attitude Toward Stuttering* (CATS) Inventory after watching a factual video or an emotional video. In this 50-item measurement tool participants responded to attitudinal questions and indicated the strength of their agreement on a five-point scale from “strongly agree” to “strongly disagree.” Snyder found that both videos produced a change in attitudes toward stuttering but were not found to be overall significant as a success in modifying attitudes in a positive direction (Snyder, 2001). Due

to the findings, Snyder concluded that the tool, the CATS, may not be an effective tool for measuring changes in attitude (Snyder, 2001).

The Woods and Williams (1976) created a 25-item semantic differential scale (rating of 1 (shy) to 5 (bold)) for 25 pairs of words to describe a PWS. This scale has been used in its original and modified forms to evaluate a speaker's perception of an individual who stutters without and/or following an intervention intended to modify attitudes. Doody and colleagues (Doody et al., 1993) used the Wood and Williams (1976) survey to study the attitudes of 106 adult residents of three small, rural communities in Canada toward an adult male who stutters in comparison to attitudes toward adult males who do not stutter. Most of the participants knew a person who stutters, and the findings showed that participants viewed adult males who stutter differently than an adult male who does not stutter on 20 of the 25 items on the scale. This finding suggested that many people hold an overall negative attitude toward a hypothetical adult male who stutters. Furthermore, this finding is an example of the persistence of negative attitudes towards people who stutter even when the participant had personal familiarity with a person who stutters (Doody et al., 1993).

Hughes and colleagues (2017) studied the relationship between attitudes of a known person who stutters and attitudes toward stuttering. One hundred and fifty-two adults who do not stutter, recruited from a variety of settings, including college classrooms, completed a Likert scale survey regarding their attitudes toward a known PWS and a semantic differential scale about their attitudes toward the known PWS and an average PWS. The researchers found that the more important a PWS was to the participants, the more positive their ratings of an average PWS were, notably selecting descriptors such as trustworthy and reliable. The researchers also found

that the more the participants perceived stuttering impacting the PWS, the more negative their attitudes were toward the known and average PWS. Participants stated that the largest consideration influencing their decision to date or not date a PWS would be impatience with or anger at PWS and the potential for embarrassment. Hughes and colleagues (2017) and Mayo and colleague (2013) results suggest that familiarity with a PWS and perceived impact on the PWS and themselves affecting a person's attitude toward a PWS.

St. Louis and colleagues attempted to develop a standard tool to explore and investigate public opinions towards PWS with the International Project on Attitudes Toward Human Attributes (IPHATHA; St. Louis, 2012a). From this project a tool to measure attitudes toward PWS was created, the *Public Opinion Survey of Human Attributes- Stuttering* (POSHA-S). With this tool researchers can not only identify attitudes, but decrease stereotypes or stigma attached to the general public's negative attitude toward PWS. With the POSHA-S researchers found that the current average perception toward PWS is that they can lead normal lives and communicate effectively. However, those who took the survey were less optimistic about whether PWS should work in high need oral communication jobs and perceived PWS as nervous, shy, and fearful. The average perception suggests that if an individual found themselves talking to someone who stutters, most people would wait patiently, ignore the stuttering, and not joke about stuttering (St. Louis, 2012a). As of February 2011, the POSHA-S has been utilized to measure attitudes toward PWS in 41 different investigations with 52 samples of survey results (St. Louis, 2011).

Impact of Attitudes on PWS

Negative attitudes in isolation are not the element that directly impacts PWS. How fluent speakers act based on their attitude toward PWS influences a PWS academically, romantically,

socially, and vocationally. These attitudes lead and contribute to negative stereotypes that perpetuate a notion that PWS are limited in their participation in society.

Klompas and colleague (2004) conducted individual interviews with 16 adult PWS in South Africa to examine their life experiences and attitudes of how stuttering has impacted their quality of life. Most participants perceived their stuttering to have negatively impacted their relationships with teachers and classmates, their work performance, and chances for promotion.

Similar to both adults and adolescent PWS's own negative attitudes of stuttering (Flynn & St. Louis, 2011; Klompas & Ross, 2004), college students who don't stutter have been found to hold a negative view of PWS. Hughes (Hughes, 2008) studied 150 fluent college students' attitudes toward PWS using a 9-item open-ended survey. In this research, fluent college speakers perceived PWS to have more barriers and limitations vocationally, romantically, socially, and academically. In this study the participants, who were college student fluent speakers, were asked to imagine life if they were a PWS. Participants indicated that if they were a PWS, they might not choose to seek higher education, would avoid specific careers that require large amounts of verbal communication (e.g. teaching, telemarketing, and sales) and have fewer or different friends. This research illustrates how college students are aware of the potential and real negative effects of stuttering on a speaker's life. The inferences made by these fluent college students are not generalizable to all PWS. As Hughes suggests, these perception trends have the potential to create and contribute to negative stereotypes. The findings indicate the degree to which fluent speakers view PWS ability participate in society to the same degree as anyone else (Hughes, 2008).

Romantically. Researchers have found specific areas in the life of a PWS that are uniquely viewed by society. One significant area is how stuttering impacts a PWS romantically. Mayo and colleague (2013) concluded that while many PWS believe that others will not want to date them, their peers are looking for the same traits that they look for in any potential romantic partner: attraction, personality, attitude, etc. This finding suggests that having a stutter does not have to be a barrier for forming a long-term romantic relationship (Mayo & Mayo, 2013). In contrast, Hughes and colleagues (Hughes et al., 2010b) studied 146 fluent college students' attitudes of the life effects of stuttering using a written survey with two open-ended questions. The researchers found that when asked to consider their own experiences of temporary disfluency in speaking situations, college student's perceived PWS would have difficulty with dating, making friends, and academics.

Mayo and colleague (2013) found that from the viewpoint of a person who does not stutter, stuttering is not a barrier in dating, but when judgements are made from the viewpoint of being a PWS there is a shift. Therefore, while people who stutter believe their romantic lives will be influenced by stuttering, people who don't stutter claim that stuttering does not matter (Mayo & Mayo, 2013). However, results are contradictory in that when imagining that they stuttered, people who do not stutter, perceived that as a PWS they would have difficulty with dating (Hughes et al., 2010b; Mayo & Mayo, 2013). This pattern suggests that society, including PWS and people who do not stutter, places a significant burden on PWS romantically.

Vocationally. While positive attitudes have been noted in previous studies involving SLPs and CSD students, there is limited current research identifying employers' attitudes toward PWS. Hurst and colleague (1983) studied 644 employer attitudes toward PWS using an

inventory called the Employer Attitudes Toward Stuttering (EATS) inventory. The researchers found that while many employers did not agree whether stuttering interferes with job performance, a majority did agree that stuttering decreases employability and hinders promotion possibilities (Hurst & Cooper, 1983). The findings of this study have conflicting results between when participants are asked to make judgements regarding the job performance of a PWS and their likelihood of promotion. Participants viewed the possibility of promotion for PWS as less likely than PWS's positive job performance. This specific pattern suggests that employers may not be highly aware of their bias against PWS. Employers may view PWS' potential for full participation in a career as limited in comparison to a fluent employee (Hurst & Cooper, 1983). Little information is available on the modifiability of the attitudes of those who employ and play a large role in PWS' vocational aspirations.

Similar findings were found from a study of personal attitudes and perceived public opinion about stuttering (Boyle, 2017). Three hundred and ten adults from a representative sample of the United States completed an online survey about their attitudes of PWS. In this research, Boyle found a common perception that PWS should avoid jobs requiring frequent and high oral communication demands in comparison to lower speech demand jobs (Boyle, 2017). Similarly, Hughes and colleagues (Hughes et al., 2010b) also found that fluent college students perceived PWS to have challenges in finding and maintaining employment, specifically careers with high oral communication demands due to discriminatory practices of employers (2010b). Vocationally, according to Hurst and colleague (1983) and Hughes and colleagues (2010b), both employers and adults in general tend to assume PWS are not well suited to high communication demand jobs.

The general public's stated and implicit attitudes toward PWS may be considered detrimental to full participation in society as PWS. As previous literature has illustrated, adults, employers, and college students often hold negative and potentially harmful views towards PWS when it comes to obtaining a job.

Factors Underpinning Negative Stereotypes

To understand underlying beliefs related to these attitudes, researchers have proposed several explanations including the following: inference hypothesis, anchoring-adjustment hypothesis, the media's portrayal, family/ culture, level of education about stuttering, and general bias. With regard to stuttering, negative stereotypes and attitudes of PWS have been hypothesized to form for a variety of reasons.

Inference hypothesis. In the inference hypothesis researchers suggested that negative stereotypes develop when an individual who does not stutter uses their personal experiences of temporary speech disfluency to form their opinions toward PWS (White & Collins, 1984). For example, the person who does not stutter may be more disfluent when nervous or uncertain and thus associate those traits with a PWS.

Anchoring-adjustment hypothesis. In the anchoring-adjustment hypothesis, it has also been suggested that attitudes of individuals are related to the life stage the individual is currently in (MacKinnon et al., 2007). This hypothesis suggests that the stereotype toward stuttering comes from a process of first anchoring the stereotype in one's feelings during times of normal speech disfluency (the inference hypothesis) and then extending upon the inference hypothesis to suggest that the stereotype is adjusted based on heuristic judgments about stuttering. In a study conducted by MacKinnon and colleagues (2007), the anchoring- adjustment hypothesis was

tested to account for the stereotypical personality ratings attributed to PWS. One hundred and eighty-three college students in psychology classes, who did not stutter, were asked to rate three hypothetical persons on a set of 25 traits using the Wood and Williams (1976) scale. The example people were: 1) a typical male 2) a male who experiences temporary speech disfluency, and 3) a male with a stutter. The researchers found that participants rated a male PWS and male who experiences temporary speech disfluency more negatively than a typically speaking male. This finding confirms the anchoring or inference portion of the hypothesis. The researchers found that participant ratings of the male PWS and male who experiences temporary speech disfluency differed. The male PWS was rated more negatively and characterized by the trait of “anxious.” This could be because the rater associates their own feelings during moments of disfluency to a PWS’ and assumes a PWS is also anxious. The researchers suggested that this explanation of the negative stuttering stereotype can translate into a quick, unconscious judgement toward PWS, and the stereotype may be overcome by informing participants about stuttering (MacKinnon et al., 2007).

Media portrayal. Another hypothesis behind how people form their opinions toward PWS is the media portrayal hypothesis. Miller (2015) utilized 36 clips from 11 major motion picture films to create one negative and one neutral clip of portrayals of stuttering. Miller utilized the films to document the effect of the portrayals of PWS on adolescents’ perceptions of PWS. Forty-six adolescent students completed a bipolar adjective pair scale prior to and following the video clips. Miller found that there were significant differences for all adjective pairs between pre and post viewing of the video clips in the participants’ adjective pair description selections of stuttering (Miller, 2015). The findings showed that the participants who viewed the negative

portrayals held more negative attitudes toward PWS in comparison to those who viewed the positive portrayals and held slightly more positive attitudes toward PWS. For example, those who viewed the positive video clips selected more connotatively positive descriptors such as friendly over unfriendly, while those who viewed the negative video clips selected more connotatively negative descriptors such as tense over relaxed. (Miller, 2015)

Family and culture. Another factor that has been shown to influence people's perception of PWS is family culture. Several researchers found that families hold similar perceptions toward PWS across generations (Ozdemir et al., 2011; Salas-Provance et al., 2002). In one particular study (Ozdemir et al., 2011), researchers compared attitudes towards stuttering in two representative samples of Turkish families and neighbors comparing generations and data across two years. Family similarities were observed on the POSHA-S for the 100 participants, including a sample of children, parents, grandchildren, relatives, and neighbors. The researchers found that attitudes toward PWS between the two years of samples across all generations were strikingly similar. These findings suggest that family bonds and socialization contribute highly towards one's attitudes of PWS.

Bebout and colleague (1992) studied attitudes toward several communication disorders including dysfluency. One hundred and sixty-six college students from several English-speaking North American cultures (e.g. Hispanic, Asian, Chinese) completed an attitude questionnaire. The researchers found that non-native North Americans were more likely to think that people with communication disorders were emotionally disturbed. Individuals from Asian countries were more likely to suggest that people with communication disorders could speak better if they tried harder (Bebout & Arthur, 1992). These findings suggest that specific negative attitudes

toward communication disorders and specifically stuttering, exist and follow cultural patterns of belief about communication disorders in general. While there is a universal negative perception toward PWS, specific cultures may have more outwardly negative attitudes which is important to consider in clinical practice and education about stuttering.

Attitudes also differ by country of origin, which appears to stem from family beliefs and culture. An international comparison of attitudes toward PWS using the POSHA-S found attitudes ranging from most positive to least positive attitudes as follows: North America, Western Europe, Eastern Europe, Middle East, Africa, and Asia. (Klompas & Ross, 2004; Ling et al., 2012; Ozdemir et al., 2011; Przepiorka et al., 2013; St. Louis, et. al., 2016; Valente et al., 2016).

Education and experience with PWS. Researchers have explored attitudes towards PWS from participants representing different ages, professions, and experiences with PWS. Swartz and colleagues (2009) studied attitudes of 169 speech-language pathologists (SLPs) toward PWS using a 25-item semantic differential Likert scale questionnaire. In this research, SLPs held more positive attitudes toward PWS than towards people who do not stutter on nine personality traits, including: sincere, likeable, trustworthy, physically normal, reliable, good sense of humor, mentally stable, intelligent, and employable. Similarly, Koursodimitropoulos and colleagues (2016) found that SLP graduate students' scores on the *Public Opinion Survey of Human Attributes- Stuttering* (POSHA-S) showed more positive attitudes toward PWS as compared to the attitudes of existing international research of diverse populations and professions.

Similar to the findings from Swartz and colleagues (2009), other researchers' findings of group attitudes toward PWS were identified and compared to evaluate a continuum of attitudes toward PWS. When using the POSHA-S to measure attitudes toward PWS, recent research suggests that from most positive to least positive attitudes: adult PWS, speech-language pathologists, teachers, students, then the public (Abdalla, 2015). The trend in attitudes among these groups is shown to suggest a universal negative perception toward PWS, yet individuals who are more educated and regularly interact with PWS are shown to have a more positive attitude. This suggests that there is an opportunity to increase positive attitudes toward PWS through education and exposure to PWS.

General bias. There have been few studies specifically examining the underlying thoughts and beliefs related to negative attitudes toward PWS. While a variety of factors have been shown to play a role in the responses, current research does not present with a single and well-tested rationale behind how attitudes towards PWS are formed. Family, culture, personal experiences of disfluency, and the type and severity of stuttering observed play a role in forming listener attitudes. Logic and knowledge of bias in general suggest that a combination of factors may lead the general public to form their attitudes toward PWS. Hughes (2008) suggests that the patterns fluent speakers exhibit are not intended to be negative, but often are motivated from protecting PWS from negative reactions. Nonetheless Hughes posits these patterns and beliefs limit PWS from fully engaging in academic, social, and vocational situations (Hughes, 2008).

Factors Related to Attitude Change

Researchers have attempted to modify attitudes toward PWS due to the demand and need illustrated in previous research. A variety of methods have been utilized to create a positive shift

in attitudes such as documentaries and oral presentations. The factors believed to contribute to attitude change toward people who stutter involve the listener, the PWS, and the presentation mode.

Listener factors. According to research conclusions and suggestions from Hughes (Hughes, 2008) utilizing information geared to educate fluent speakers about the behaviors of stuttering would allow for more comfortable and effective interactions between PWS and fluent speakers. Overall general trends suggest negative attitudes towards PWS may be linked to the amount of knowledge an individual has about stuttering. One aspect of stuttering that previous researchers have attempted to explore is how the knowledge and perceived cause of stuttering affects a listener's perception. When a psychological cause was attached to a vignette of a person who stutters, overall more negative attitudes were found (Boyle et al., 2009). This evidence suggests further that using information to change attitudes may be useful to clarify the cause, or lack of discrete cause, of stuttering.

In contrast, Lake and colleagues (2009) studied the attitudes of 80 undergraduate and graduate communication sciences and disorders college students toward a course instructor who stutters using a questionnaire rating the instructor's oral performance and personality characteristics. Researchers found that the instructor was rated favorably on most of the personality characteristics and oral performance. From the results the researchers concluded that using a real PWS in attempting to modify attitudes toward PWS is vital. The age of the participants, coursework, exposure to and authority of the PWS did not impact attitudes (Lake et al., 2009).

Flynn and colleague's research, discussed previously, also suggests that while adolescents and adults may have similar attitudes toward PWS, identifying as a peer with the person who stutters who is presenting the information was a significant factor in changing attitudes in a positive direction (Flynn & St. Louis, 2011). This suggestion is further supported by a previous study that found using a documentary of adult PWS, *Voices to Remember*, to change attitudes of high school students toward a high school male person who stutters. The researchers found that participants viewed the adult male person who stuttered negatively, specifically noting he was "inflexible" and representing a reinforcement of negative stereotypes. This mismatch in age of the person who stutters in the video and the participants may have been a contributing factor to why the desired change in attitudes were not noted (McGee et al., 1996).

To influence change in the attitudes toward people who stutter, the listener plays a vital role. One of the factors that contributes to positive change include education about stuttering overall, the cause of stuttering, and listener responsibilities. A second important factor is exposure to a real person who stutters who is matched in age to the listeners. Overall, the experiences and knowledge that listener may have or stand to gain, is one of three overall factors to consider in modifying attitudes: PWS factors, presentation format, and presentation content.

PWS factors. One key factor played in changing attitudes toward PWS involves disclosure. In several research studies, researchers discovered that disclosure (i.e. A PWS deliberately states "I stutter") by a PWS increased positive attitudes (Collins & Blood, 1990; Healey et al., 2007; Hughes, 2008). The researcher also found that the primary effect on improving attitudes of those who do not stutter was knowing that a person who stutters was attending therapy (Gabel, 2006). This finding was confirmed by other studies that found self-

advertising of therapy attendance was an effective tool for changing attitudes about stuttering (Collins & Blood, 1990; Kittilstved, 2014). Yet a contradictory pattern is present. While fluent speakers may perceive attending therapy as beneficial and contribute to a higher positive perception, those PWS who employ therapeutic speech techniques may be judged negatively by their listeners (Gabel, 2006; Manning et al., 1999).

As previously mentioned, Flynn and colleague's (2011) study suggests humor was an important factor to include in a presentation. The research findings indicated that an in person and humorous presentation had a greater effect on college student attitudes than a film-based portrayal of the same PWS but focused on barriers to success in a non-humorous way. The researchers suggest using humor to discuss serious issues appears to be an important method for changing attitudes about PWS.

Researchers have attempted to identify how the severity of the speech patterns of a PWS and knowing a PWS attends therapy affects attitudes toward PWS (Gabel, 2006). The attitudes of two hundred and sixty people toward PWS were identified using a 25-item semantic differential scale. Through a comparison of the effects of level of therapy involvement, stuttering severity, and the interaction of these variables, Gabel found that PWS characterized as mild are more positively perceived than those who present with more severe stuttering. This finding suggests that there is a negative bias attached to stuttering, specifically as severity increases (Gabel, 2006). Previous researchers found similar results and identified that stuttering severity has a greater effect on attitudes than the presentation mode of the stimuli (Panico et al., 2005).

To summarize, characteristics of the individual who stutters are pivotal in changing attitudes toward PWS. One of the factors that contributes to positive change includes the PWS

disclosing that they are a person who stutters and further attending therapy for their stuttering. A second factor for influencing positive change is the person who stutters uses humor and has a mild severity of stuttering. A factor that has been viewed negatively by listeners is the use of therapy techniques by PWS. Overall, the personality and characteristics of the person who stutters impacts the amount of positive change in attitudes toward PWS.

Presentation format factors. To influence change in attitudes toward people who stutter, the format of the presentation is the last aspect to consider. Flynn and colleague (Flynn & St. Louis, 2011) measured 83 high school student's attitudes from a Mid-Atlantic region of the United States using the POSHA-S. The students were split into two groups: one group of students engaged in an oral presentation and the other group was shown a video called MTV (Music TV) True Life: I Stutter. The oral presentation was an in-person, humorous in tone, presented by a PWS. Whereas the True Life: I Stutter was a video following three PWS and was not humorous in tone. The video included the presenter of the oral presentation and depicted the struggle the presenter faced related to stigma of prospective employers and other employment barriers. The results may be confounded by the use of humor in the oral presentation whereas the video presentation was not humorous in tone. The researchers found adolescent attitudes towards PWS on the POSHA-S were more positive in response to both interventions than at pre-test; the oral condition showed a greater degree of positive improvement (25-point increase) than the video condition (15-point increase), suggesting that the oral, humorous presentation was more effective in changing attitudes than the video (Flynn & St. Louis, 2011).

To examine the maintenance of attitudes found in their 2011 study, Flynn and St. Louis implemented a follow-up implementation of the POSHA-S to a representative sample of former

high school students who had engaged in the video or oral presentations and a control group. The researchers found an overall more positive yet declining attitude (7 points change from +43 to +38 on the POSHA-S) among the video or oral presentation participant group seven years post-intervention (Flynn & St. Louis, 2018). This finding shows that changes in perception following interventions, involving both video and oral presentation interventions, may be effective in producing long-lasting change into adulthood.

Similar to Flynn and colleague's research (2011a, 2018b), viewing documentaries has also been found to produce positive shifts in attitudes toward PWS. As previously mentioned, Mayo and colleagues (2008) found that following a factual, emotional, positive-in-tone documentary on the experiences of a girl who stutters, called *Speaking of Courage*, 43 college students' attitudes toward PWS were modified to produce a positive shift on 8 of 25 items on a semantic differential scale (Wood & Williams, 1976). In other words, students who viewed the documentary displayed a shift toward the connotatively positive adjective pairs in beliefs toward PWS in specific descriptors: cooperative-uncooperative, pleasant-unpleasant, intelligent-dull, emotional-bland, open-guarded, shy-bold, daring-hesitant, and flexible-inflexible. The researchers noted that the change in attitudes may be linked to the girl's willingness to participate in school activities, speech therapy, and furthermore the documentary itself may have caused the changes to attitudes. Noted differences in attitude trends were a shift from initial association of negative personality traits associated with stuttering (guarded, shy, hesitant) to describing the PWS in the documentary as intelligent and overall more positive. The study provides evidence that listeners' attitudes of PWS can change and furthermore change in a positive direction using documentaries that present factual and emotional aspects of stuttering

(Mayo et al., 2008). This and previous studies suggest the importance of first-person oral presentations in changing attitudes about stuttering (McGee et al., 1996).

There have been multiple studies examining the initial attitudes of groups toward PWS and attempts to modify their attitudes through video presentations or documentaries and oral presentations delivered about a person who stutters. These studies have included emotional information and/or educational information. As conveyed in Kenneth O. St. Louis' text *Stuttering Meets Stereotype, Stigma, and Discrimination* chapter "Changing Attitudes Toward Stuttering" (Abdalla, 2015) while the stimuli used to change attitudes was important, it must have meaning for the targeted population and therefore be matched to them. (Abdalla, 2015). Abdalla also suggests that a change of attitudes in response to an intervention may be dependent on the information presented in the educational program and not the type of stimuli itself. For example, if explicit information is given on the cause of stuttering, you are more likely to see a shift in a more positive attitude on the POSHA-S than if this piece of information is not used in the intervention (Abdalla, 2015). Flynn and St. Louis' (2011) findings contradict previous research findings that participants viewed personality traits of a speaker who stuttered similarly regardless of regardless of the presentation mode, presence or absence of primary, secondary, or no stuttering behaviors, or the presence or absence of a stutterer label (Flynn & St. Louis, 2011; Turnbaugh et al., 1981). While differences in measurement tools may explain some of the discrepancy in findings, the literature presents a gap in understanding which specific variables lead to positive attitude shifts towards PWS.

Summary of attitude change factors. Flynn and St. Louis (2011) and Mayo and colleagues' (2008) findings suggest that distinct factors are related to an overall positive shift in

attitudes about PWS. Specifically, the greatest positive attitude changes were noted when the presentation was in-person or a personal documentary film. Additional factors that seem to play a role in listener's attitudes are the role of humor, educational content, emotional content, personality of the speaker / PWS, and mode of the presentation. These findings are consistent with other research (Manning & Beachy, 1995) underscoring the importance of humor in the therapeutic process and in helping a PWS overcome social barriers created by stuttering. Another factor for influencing positive change is ensuring that the information stimuli must be matched in meaning to the targeted population and that the information match the tool intended to measure changes in attitude. Overall, while Panico and colleagues (2005) assert that stuttering severity has a higher effect on attitudes, consideration of the presentation stimuli itself is critical in changing attitudes toward PWS in a positive direction. Further research would help tease out factors that are most effective in modifying attitudes towards PWS.

No previous literature has explored the influence of a conversational, emotional, educational, and humorous podcast or a written-to-dictation version of the podcast on modifying college students' attitudes. Podcasts are a unique form of communication in that they show an individual's personality and include aspects of an in-person oral presentation, such as including a conversational partner. Yet the participants cannot see or directly interact with the individual. While it has been established that audio and visual forms are effective in modifying attitudes, it is unclear whether using a midpoint between the two stimuli types, such as a podcast, would be beneficial to attitude change. Previous literature has utilized vignettes to describe a potential person who stutters in a written format but using a written text of the speech and conversation of a person who stutters modify attitudes has not been utilized.

College students are an important population to identify and measure modifiability of attitudes toward PWS. College students are also in a period of their lives where they are gaining the essential knowledge and skills to be an employee and potentially an employer. The time span between starting college and being employed as a manager or business owner is a potential time to influence individual's attitudes about stuttering and decrease the potential for limiting career options of PWS. As previously mentioned in reference to the anchoring adjustment hypothesis, college students are in a precarious and pivotal stage of their life where long-lasting decisions are typically made romantically, academically, and socially. Therefore, positive or negative attitudes from family and culture are either shifted or modified (Boyle, 2017; Hughes, 2008; Hughes et al., 2010b; Hurst & Cooper, 1983; Klompas & Ross, 2004; Mayo & Mayo, 2013).

Purpose of study. The purpose of this study was to identify and examine whether college students who do not stutter exhibit an attitude change toward PWS immediately and one week after participating in either: an emotional, humorous, and educational podcast or a written dictation of the podcast, and whether attitude changes are similar across these two formats. We also examined whether including information on listener responsibilities in the intervention produced a change in the Self-Reactions to PWS subscale immediately after the intervention and one-week later. Lastly, we examined how the opinions/ responses of students in the present study compare with other groups of non-SLP college students and the International Database Median (IDM) and in the POSHA-S international database. Previous research has indicated that a range of stimuli may be successful to identify and modify college student's attitudes toward PWS. Positive attitude shifts have been shown as a result of using educational, emotional, humorous, and meaningful stimuli depicting or from a PWS that is similar in age to the listeners. While the

population of college students has been utilized heavily as a population of interest to modify attitudes, the interventions selected were unique in measuring specific factors that lead to a positive shift in attitudes. Podcasts have not been utilized as a method to modify attitudes toward PWS in previous studies. Many individuals of varying ages listen to podcasts to inform themselves further on topics of interest. They are a versatile means of informing listeners without requiring a visual stimulus. With a podcast, the conversational aspect of an in-person oral presentation is in-tact. Yet it does not require the individual to view and personally interact with the speaker. A podcast is a mid-point between an oral-presentation and an audio recording.

Chapter 2: Methods

Participating college students were selected from two classrooms of an introductory class with similar level students. Each classroom received one of the interventions: condition one read a written transcript of the interview and condition two listened to the podcast version of the same interview. The dependent variable was the amount of change in group scores on the *Public Opinion Survey of Human Attributes- Stuttering* (POSHA-S) from pre- to post-test. In addition, a second dependent variable was examined, a subscale of 12 questions related to Self-Reactions to PWS from the POSHA-S were analyzed before the intervention, immediately after, and one-week post intervention.

Participants

One hundred participants from two different Introduction to Anthropology classes at a regional state university in the Midwest were invited to participate in the study. A sample size of 50 participants was targeted as St Louis (2008) found that samples of 25 participants accurately predicted POSHA-S scores for a population of 1500 respondents as accurately as samples of 50-200 participants. Sixty-eight participants completed the POSHA-S pre-test. Thirty-nine participants completed both the pre- and post-test of the POSHA-S. Thirty-three participants completed the pre- and post-test of the POSHA-S and the Self-Reactions to PWS POSHA-S subscale. Final analysis was conducted only on the 33 individuals who completed all three portions of the study.

To recruit participants, the author visited each class and provided an in-person introduction to the project. Students were invited to participate in a project examining college students' attitudes and beliefs about stuttering. After the in-person introduction, students

received a follow-up email from their professor requesting participation in the study and completion of the pretest. The class was incentivized to complete the surveys through the potential to win one of two \$25 Amazon gift cards after completing both pre- and post- test surveys. Following a technical error with the online survey platform when the pre-test was initially distributed, the participants were incentivized to re-take the survey with a drawing to win one \$25 Amazon gift card.

Students were not able to participate if they were a Communication Sciences and Disorders major, identified as a PWS, or had a history of any communication disorder. Aside from these exclusion criteria all students willing to participate were deemed eligible for the study.

The gender balance of participants (N=33) (41% male; 56% female) was similar to the overall college population of the United States which is 42% male and 57% female (“Digest of Education Statistics,” 2017). The majority of participants (71%) were between 18 and 21 years old. Racially, the sample was 68% white, 21% Asian, 6% LatinX, and 3% multiracial. There were slightly fewer men (39%) and slightly more women (61%) who participated in the listening intervention (n=18) than the reading intervention (n=15; 47% male; 53% female). The listening intervention group included fewer Asian students (11% vs. 33% in the reading intervention group) and more LatinX students (11% vs 0%). The majority of participants (80%) were born in the United States of America; 21% were not born in the United States of America, but otherwise the groups were fairly equivalent demographically (see Table 1 for additional demographic information).

Table 1*Demographics of Matched Participants*

Variable		Conditions	
		Total	
			Listening Reading
n		33	18 15
Sex			
	Male	41.2%	38.9% 46.7%
	Female	55.9%	61.1% 53.3%
Age			
	< 18	5.9%	11.1% 0%
	18-21	70.5%	72.3% 73.3%
	22+	20.5%	16.6% 26.7%
Race			
	Caucasian	67.6%	72.2% 66.7%
	Asian	20.6%	11.1% 33.3%
	LatinX	5.9%	11.1% 0%
	Multiracial	2.9%	5.6% 0%
Country of Origin			
	USA	79.5%	
	Non-USA	20.5%	
Religion			
	Christian	48.5%	44.4% 53.3%

	Buddhist	3.0%	0%	6.7%
	No religious practice	33.3%	38.9%	26.7%
	Not specified	12.1%	11.1%	13.3%
	Hindi	3.0%	5.6%	0%
Parent				
	Yes	3%	0%	6.7%
	No	96%	100%	93.3%
High School Post-Secondary Educational Opportunity (PSEO)				
	Yes	12.1%	22.2%	0%
	No	87.9%	77.8%	100%

Note. Further demographic information is included in raw data form.

Materials

Public Opinion Survey of Human Attributes-Stuttering (POSHA-S). The POSHA-S was used for pre- and post-test assessment of participant attitudes towards PWS. The POSHA-S is a 32-item standardized questionnaire designed to measure public attitudes toward stuttering. A graphic profile, the POSHA-S Radial Graph, visually displays each group's mean scores of each sub score, representing their attitudes towards individuals who stutter. In these radial graphs, "better" attitudes are closer to the outside while "worse" attitudes are closer to the center. The Radial Graph profile trends may be compared by visual inspection to patterns of median trends in the POSHA-S international database. The instrument has been used to assess attitudes of participants internationally representing a wide range of ages, socioeconomic statuses, and cultures. Test-retest reliability coefficients range from 0.78-0.83 for the online

version. Construct validity is supported through comparison with similar measures such as the Williams and Woods (1976) semantic differential scale. Item analysis and internal consistency reviews were judged adequate in a technical review (St. Louis, 2015). The POSHA-S was selected for this current study due to the technical and structural integrity of the tool itself and its broad use with diverse populations. Further psychometric properties and the epidemiology may be found in St Louis (2015).

For the assessment, participants complete a written questionnaire reporting their demographic information, beliefs about PWS, and their reactions to PWS, in that order. For this current research project, the researcher utilized the POSHA-S online using a Qualtrics survey platform. An Overall Stuttering Score (OSS) is generated ranging from -100 to +100. A score of -100 represents the most negative attitudes possible and +100 represents the most positive attitudes possible.

Self-Reactions to PWS. For this study, a 9-questions from the POSHA-S Self Reactions to PWS subscale were examined as part of the pre- and post- test information and as an immediate measure of student Self-Reactions to PWS. These subscale questions related to listener behaviors and beliefs or feelings that a person might experience when interacting with a PWS (e.g. I would fill in a word, I would make a joke, I would feel pity). On each item, participants responded to a question using a 1 to 3-point Likert scale (No=1; Not Sure=2; Yes=3). A total Self- Reaction to PWS subscale score was created by adding together the individual scores. Two questions were reverse coded so that the total score indicated a more negative reaction to PWS. For a complete copy of the questions on the POSHA-S and Self-Reactions to PWS subscale, see Appendix B.

Podcast. The first podcast segment included a portion of an interview with a 16-year old PWS, and a clip of her slam poetry titled *Should My Child be Born with a Stutter* (Goldstein, 2018). The second podcast segment included a portion of an interview with a 26-year old PWS discussing the communication pressures she experiences as a PWS and listener responsibilities when interacting with a PWS (McInerney, 2018).

Procedure

Participants completed three components of the study which is described as the timing of the study: 1) pre-test, 2) intervention with immediate Self-Reactions to PWS subscale and 3) post-test. One week before their scheduled intervention, all participants completed the pretest individually using the online version of the POSHA-S. Next, participants engaged in a classroom-based 30-minute intervention session. One group was assigned to condition one where participants read a written transcript version of the same interviews which included moments of stuttering marked (e.g. repetitions were written as “pl-pl-pl-places”). One group was assigned to condition two, where participants listened to a podcast consisting of two short interviews with PWS taken from two different podcasts. (Goldstein, 2018; McInerney, 2018). These two conditions were randomly assigned to the two sections of Anthropology 100. Section one was assigned to condition one, the reading group. Section two was assigned to condition two, the listening group. The in-class interventions were introduced by the graduate student coordinating this research. The group assigned to read the interview transcripts, read the transcripts during class time to parallel the podcast intervention groups in-class experience with peers. Immediately following the presentation, participants completed the 9-question Self-Reaction to PWS subscale online. One week after the intervention, participants were sent a link by their professor to

complete the POSHA-S online post-test. This study was reviewed by the authors' university Institutional Review Board and met criteria for human subject's research.

Research Design

This study was a quasi-experimental group design with pretest, immediate posttest, and delayed posttest measures of attitudes towards PWS.

Chapter 3: Results

Analysis

For this project, several analyses were completed. To answer the first question about whether college students who do not stutter exhibit an attitude change toward PWS immediately and one week after participating in either an educational podcast or a written dictation of the podcast, and whether these two formats differ in their effect on attitude changes are similar, a visual and descriptive analysis of the Graphic Profiles generated by the POSHA-S results of this study a Repeated measures MANOVA analysis were completed. Thirty-nine participants completed both the pre- and post-test POSHA-S surveys. This is a response rate of 39% from all potential participants. Response rates were relatively similar in the reading (35%) and listening conditions (43%).

To answer the second question about whether including information on listener responsibilities in the intervention produced a change in the Self-Reactions to PWS subscale immediately after the intervention and one-week later, Repeated Measures ANOVA was completed to examine within subject main effects for timing (pre-, immediate-, and post-test) scores on the Self-Reactions to PWS subscale and between subject main effects for condition (reading vs listening). In addition, data were examined for timing x condition interactions. Thirty-three percent (n= 33) of potential participants completed all three portions of the Self-Reactions to PWS subscale for this final analysis. Response rates were similar in the reading (35%) and listening conditions (31%).

To address the third question about how the opinions/ responses of students in the present study compare with other groups of non-SLP college students and the IDM and in the POSHA-S

International Database a visual analysis of the Graphic Profiles and a descriptive analysis of the total pre- and post-test group POSHA-S trends of this study were compared to scores from similar participants in the international database.

Graphic Profile Visual Comparisons

Graphic profiles were generated to examine the pattern of results in this study. Pre- and post-test results for the current study were examined visually to note overall POSHA-S OSS and subscale trends.

Comparison of pre- and post-test POSHA-S OSS scores. To answer the first question about whether college students who do not stutter exhibit an attitude change toward PWS after participating in either an educational podcast or a written dictation of the podcast, the researchers analyzed the graphic profiles to determine visual differences between the pre-test and post-test results. A score of -100 represents the most negative attitudes possible and +100 represents the most positive attitudes possible.

Most of the pre-test and post-test scores were either similar to or more positive than the pre-test median. The *Traits/ Personality and Knowledge Source* subscale showed the greatest magnitude of change from pre- to post-test. A positive change in the *Traits/Personality* subscale may suggest that participants more fully understand the range of traits/ personalities that a PWS may have following an intervention in comparison to without any intervention. A positive change in the *Knowledge Source* subscale suggests individuals show increased knowledge about where and how to obtain more information regarding PWS.

The subscales, *Impression*, *Want/ Have*, *Amount Known*, and *Obesity/ Mental Illness*, showed the least change from pre- to post-test. The *Potential* and *Knowledge/ Experience*

subscales showed a slight decrease in positive attitudes from pre-test to post-test. With a tendency of showing more negative attitudes about the potential of PWS, individuals may be less positive in their beliefs about the potential of PWS following the intervention. A more negative rating on the *Potential* subscale means participants may have a more negative view about the potential of a PWS to have friends, lead a normal life, and hold any job. With a tendency of showing more negative attitudes about the participant's knowledge/ experience of PWS, individuals may have a more negative view following the intervention. A more negative rating on the *Knowledge/ Experience* subscale means participants may have a more negative view of their knowledge/ experience regarding the amount they know about PWS and the amount of PWS they know following the intervention.

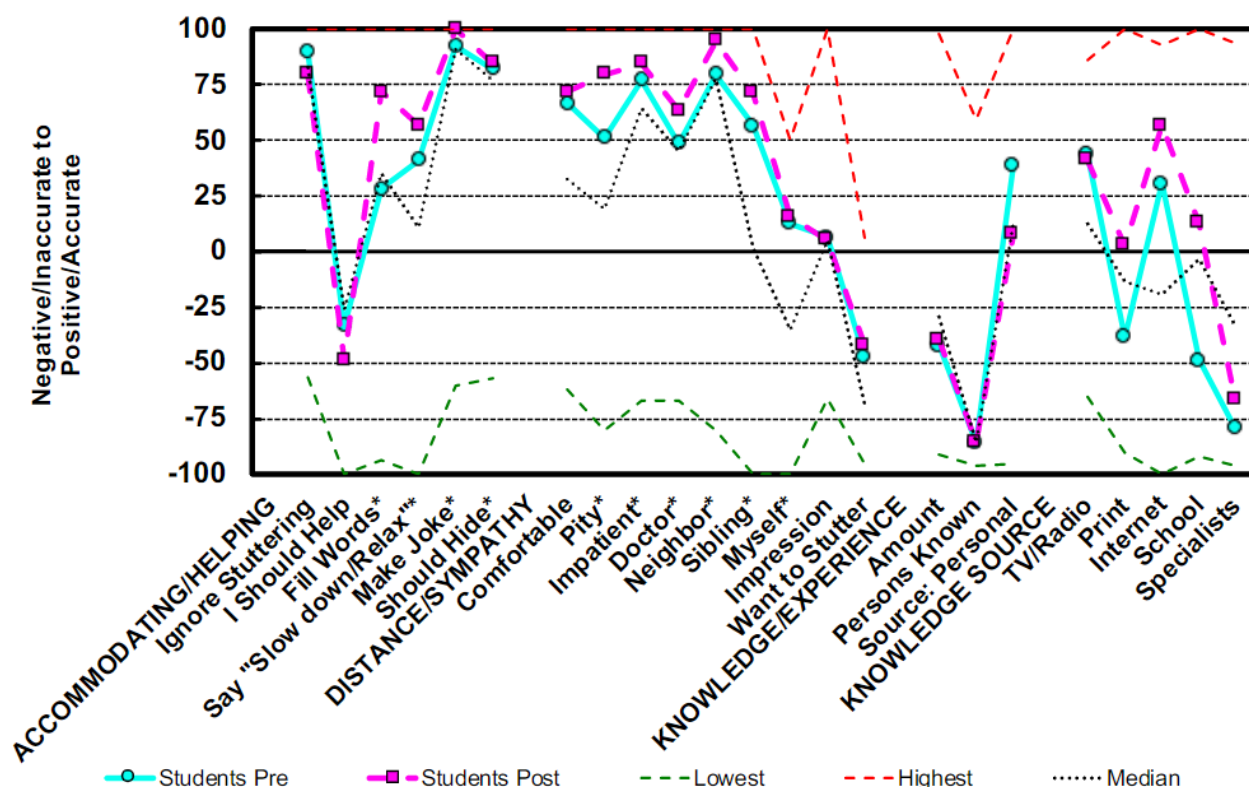
Comparison of Self-Reaction to PWS subscale POSHA-S OSS to pre-test, post-test, and median scores of the international database. To answer the second question about whether including information on listener responsibilities in the intervention produced a change in the Self-Reactions to PWS subscale, the Self-Reactions to PWS subscale, including *Accommodating/ Helping*, *Distance/ Sympathy*, and *Knowledge Source*, was analyzed to determine visual differences between the pre-test and post-test, pre-test and IDM, and post-test and IDM.

Within the *Accommodating/ Helping* subscale, the following questions increased in positive attitudes from pre- to post-test: *Fill in Words*, *Say "Slow Down/Relax"*, *Make Joke*, and *Should Hide*. The following questions decreased in positive attitudes from pre-test to post-test: *Ignore Stuttering* and *I Should Help*. The question *Fill Words* showed more positive attitudes between median and post-testing.

Within the *Distance/ Sympathy* items, the following questions increased in positive attitudes from pre- to post-test: *Pity, Impatient, Doctor, Neighbor, and Sibling*. With a tendency of showing more positive attitudes about their distance/ sympathy to PWS, individuals may be more positive in their distance/ sympathy for PWS following the intervention. A more positive rating on the *Distance/ Sympathy* subscale means participants may have a more positive view regarding if their doctor or neighbor were a PWS and feel less pity and impatience when talking with a PWS. For all *Distance/ Sympathy* items, the median was less positive than with this study's pre- or post-test. This means that the IDM attitude regarding their social distance and sympathy toward PWS was less positive than the current study's participants at pre-test and post-test (see figure 2 for additional details).

Figure 1

Trends for Individual Items within Self-Reactions to PWS POSHA-S Subscale

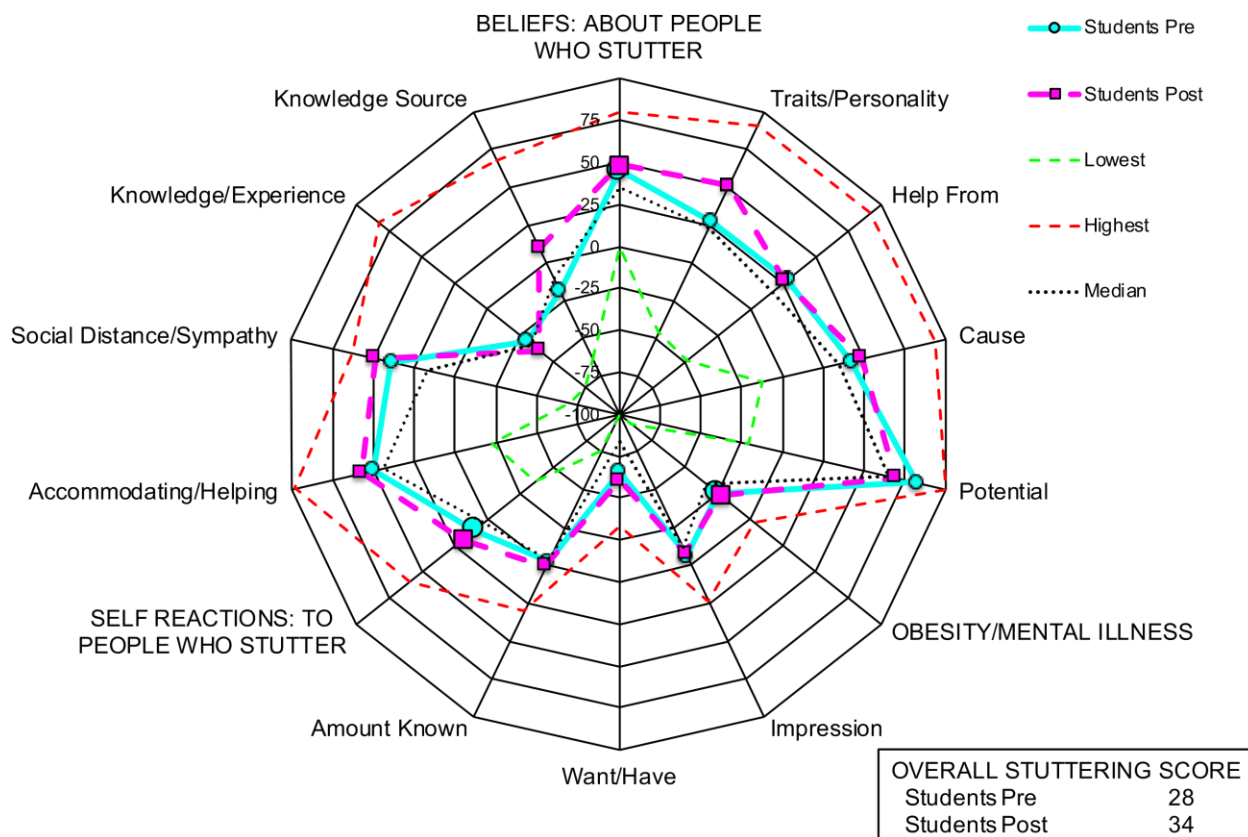


Comparison of pre- and post-test POSHA-S OSS to the IDM. To address the third question about how the opinions/ responses of students in the present study compare with other groups of non-SLP college students and the IDM and in the POSHA-S international database, the researchers then analyzed the POSHA-S graphic profiles to determine visual differences between the pre-test to the IDM and post-test to the IDM. While the pre-test and post-test align uniformly to or more positive than the IDM, a few visual discrepancies are noteworthy. The following IDM subscales are more negative than this study's pre-test and post-test: *Want/Have, Help From, Social Distance/ Sympathy, Accommodating/ Helping, and Cause*. In comparison to this study's pre-test, the IDM is more positive on the subscale of *Knowledge Source*. In comparison to this

study's pre-test and post-test, the IDM is more positive on the subscale of *Knowledge/Experience* (see Figure 1 for additional details).

Figure 2

POSHA-S Graphic Profile

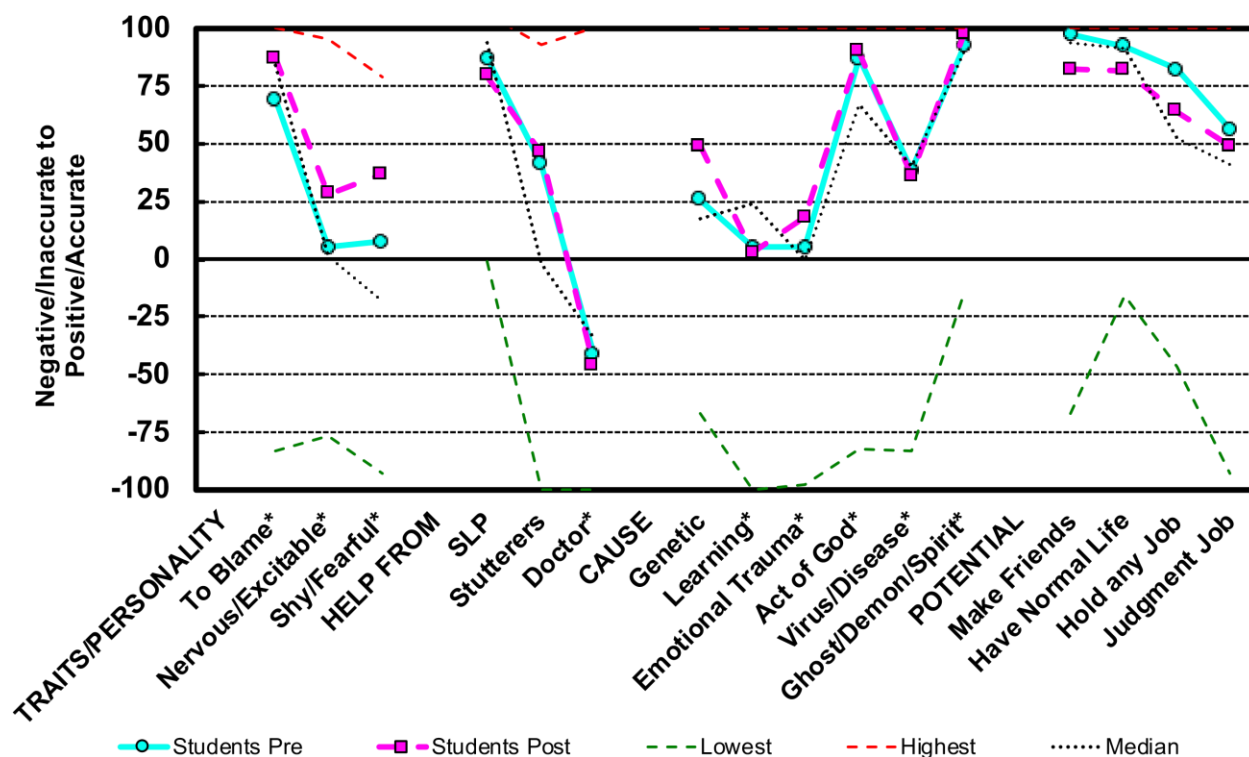


Comparison of Beliefs about PWS subscale POSHA-S OSS to this study's pre-test, post-test, and the IDM. The *Beliefs about PWS* subscale including *Traits/ Personality* and *Potential* items was analyzed to determine visual differences between pre-test and IDM and post-test and IDM. In both pre- and post-test results for this present study, all of the items and questions in the first three categories (*Traits/ Personality*, *Help From*, *Cause*) were more positive than the IDM, except for the item *To Blame*. In both post-test results for this present study, the

last item (*Potential*) was less positive than the IDM and pre-test for the questions *Make Friends* and *Have Normal Life*. The other items in this last item were above the IDM for both pre- and post-test in this present study.

Figure 3

Trends for Individual Items within Beliefs about PWS POSHA-S Subscale



Pre- to Post-Test Score Changes on the POSHA-S OSS by Condition. To answer the first question about whether college students who do not stutter exhibit an attitude change toward PWS after participating in either an educational podcast or a written dictation of the podcast, whether attitude changes are similar across these two conditions, a Repeated measures Multivariate Analysis of Variance (MANOVA) using Wilk's Lambda was conducted. We found significant differences for Timing (pre- to post-) on POSHA-S OSS scores ($F = 3.40, p = 0.02$,

$\eta^2 = 0.29$), but not significant differences in reading vs. listening conditions ($F = 1.35, p = 0.27, \eta^2 = 0.14$). Post-hoc univariate tests showed the following patterns. Significant pre-and post-test differences were found in the *Self-Reaction to PWS* subscale scores ($F = 11.22, p = 0.002, \eta^2 = 0.23$) and the overall POSHA-S OSS scores ($F = 8.02, p = 0.007, \eta^2 = 0.18$). There were no significant pre- to post-test differences in the following subscales: *Beliefs about Mental Illness/Obesity* subscale ($F = .23, p = 0.64, \eta^2 = 0.006$) and the *Beliefs about PWS* subscale ($F = .74, p = 0.40, \eta^2 = 0.02$). Post-hoc univariate tests showed a significant Condition difference for the *Self-Reaction to a PWS* subscale ($F = 5.20, p = 0.03, \eta^2 = 0.12$) with more positive reactions for participants in the listening condition at both pre- and post-test. An interaction between Condition and Timing on the *Beliefs about PWS* subscale approached but did not reach significance ($F = 3.58, p = 0.07, \eta^2 = 0.09$). There was a slightly greater increase in positive beliefs about PWS for participants in the listening group (see Table 2 and Figures 4-7 for additional details).

Table 2

Mean Pre- and Post-test Scores on the POSHA-S OSS and Subscale Scores

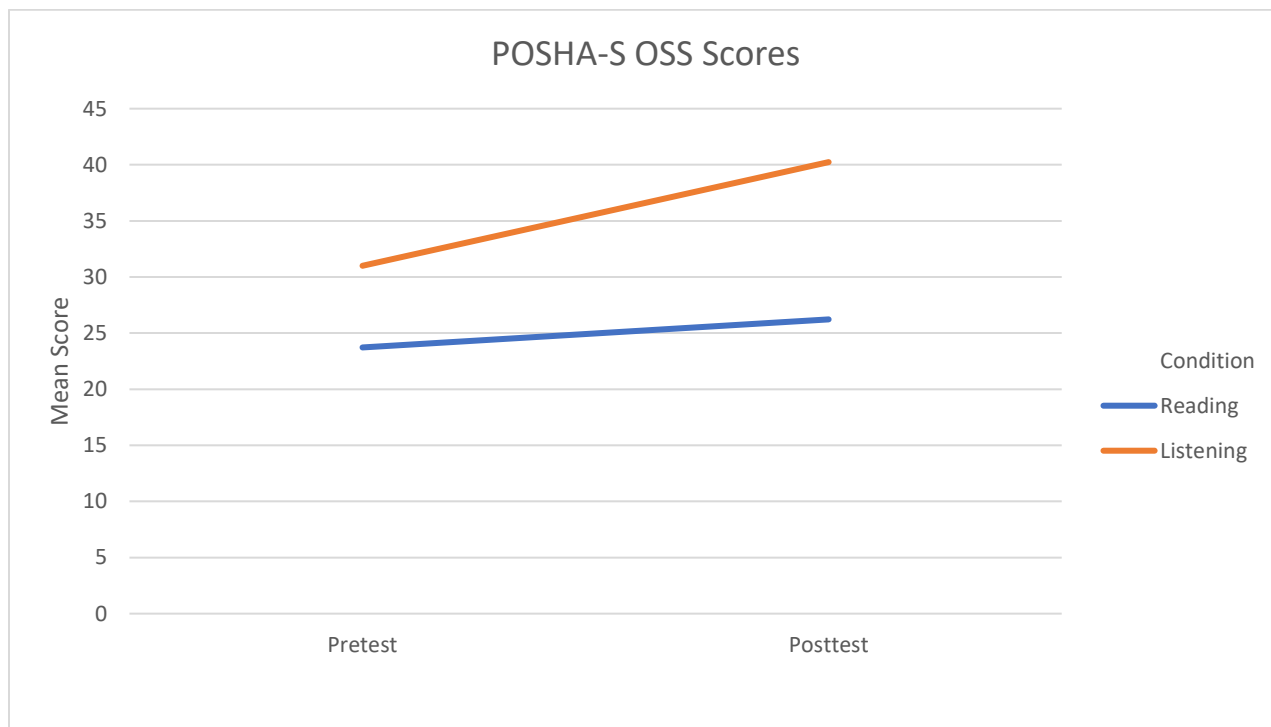
	Pre-test			Post-test		
	Reading(SD)	Listening(SD)	Total(SD)	Reading(SD)	Listening(SD)	Total(SD)
	n =18	n=21	N=39	n=18	n=21	N=39
TO	23.7(18.2)	31(15.5)	27.6(17)	26.2(19.4)	40.2(11.1)	33.8(16.8)
BMIO	-30.17(23.8)	-19.38(17)	-24.4(20.9)	-25.4(25.3)	-20(28.3)	-22.5(26.7)
BPWS	43.5(24.7)	46.7(19.6)	45.2(21.9)	40.3(26.1)	55.3(15.6)	48.4(22.2)
SRPWS	4(18.2)	15.4(18)	10.2(18.8)	12.2(22.6)	25.1(15.5)	19.2(19.9)

Note. \bar{x} (SD), TO= Total OSS; BMIO=Beliefs about Mental Illness/ Obesity; BPWS=Beliefs about PWS; SRPWS=

Self-Reactions to PWS

Figure 4

Mean Pre- and Post-test POSHA-S OSS Scores

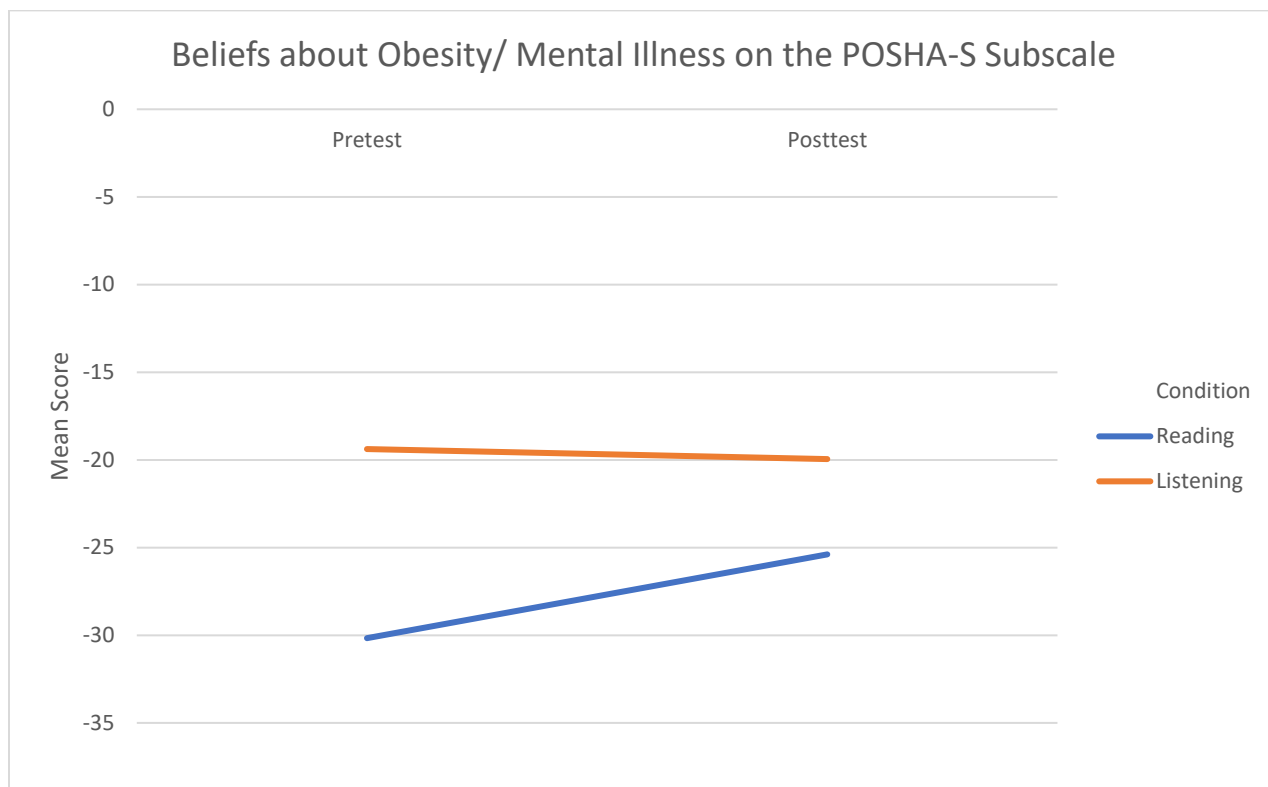


Note. Figure 4 depicts significant changes by timing for participant attitudes in the reading and listening condition on the POSHA-S OSS scores and no significant changes by condition. The p-value for timing was 0.02. The p-value for condition was 0.27.

*Significant at $*p < .05$*

Figure 5

Mean Pre- and Post-test Beliefs about Obesity/ Mental Illness on the POSHA-S Subscale



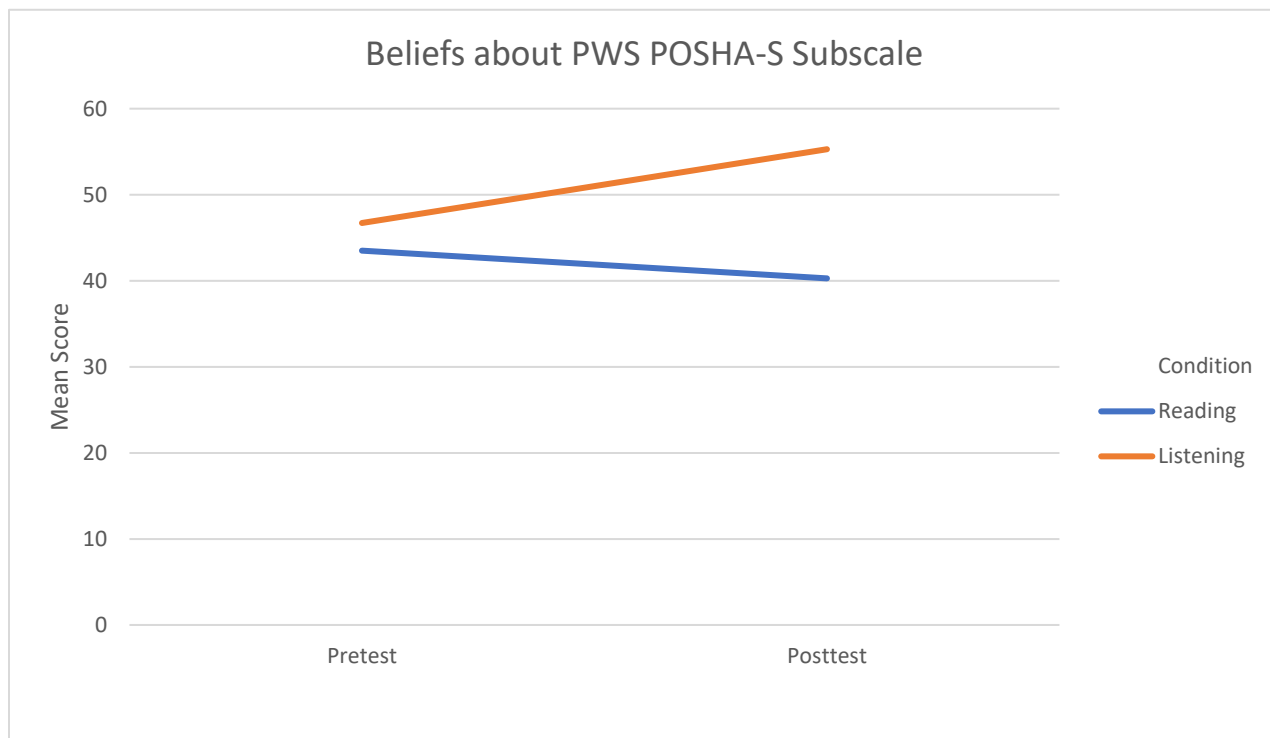
Note. Figure 5 depicts no significant changes by condition or timing for participant attitudes in the reading and listening condition on the Beliefs about Obesity/ Mental Illness on the POSHA-S subscale.

The p-value for timing was 0.64.

*Significant at $*p < .05$*

Figure 6

Mean Pre- and Post-test Beliefs about PWS POSHA-S Subscale

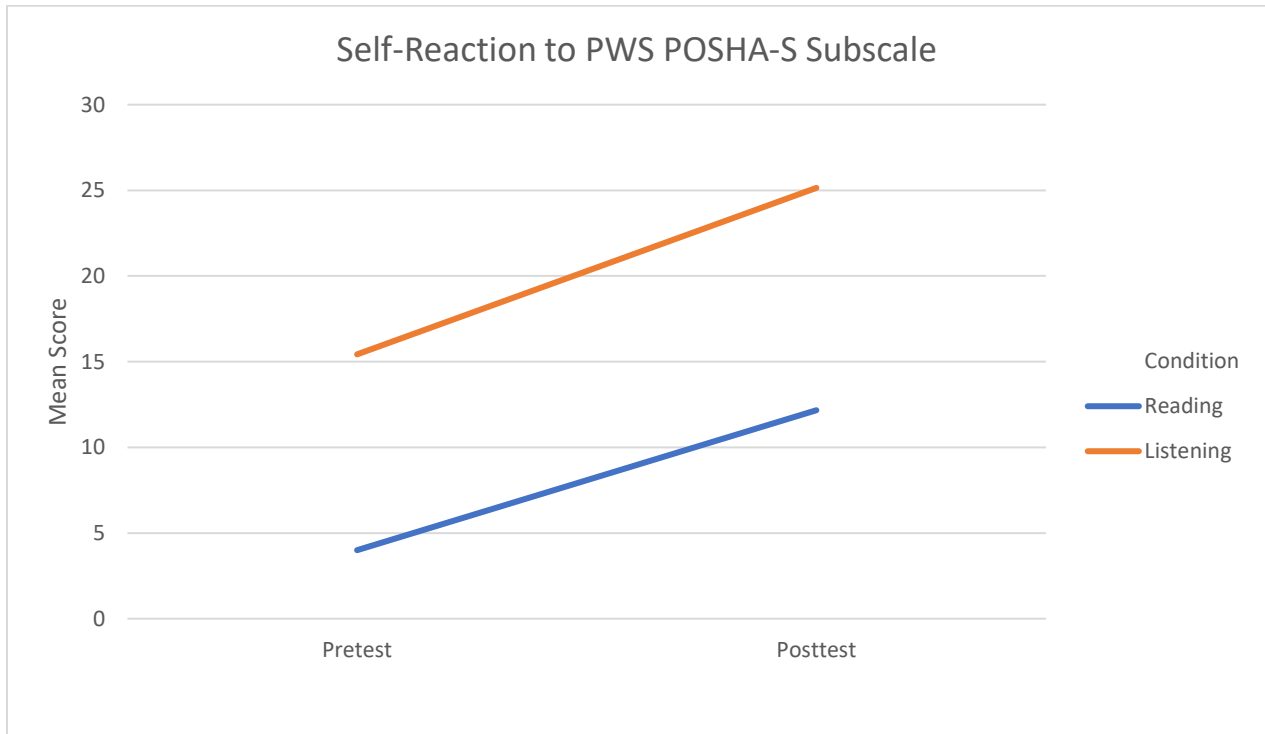


Note. Figure 6 depicts no significant change by timing for participant attitudes in the reading and listening condition on the Beliefs about PWS POSHA-S subscale. The p-value for timing was 0.4.

*Significant at * $p < .05$*

Figure 7

Mean Pre- and Post-test Scores on the Self-Reaction to PWS POSHA-S Subscale



Note. Figure 7 depicts participant attitudes in the Self-Reaction to PWS POSHA-S Subscale at pre-test and post-test separated by those in the reading condition and listening condition. The p-value for timing was 0.002. The p-value for condition was 0.03.

*Significant at $*p < .05$*

Comparison of Pre-, Immediate, and Post-Test Scores on the Self-Reactions to PWS

Subscale. To answer the second question about whether including information on listener responsibilities in the intervention produced a change in the Self-Reactions to PWS subscale, a Repeated measures Analysis of Variance (ANOVA) was conducted. We compared individual differences in pre-, immediate- and post-test subscale scores on a researcher-created measure drawn from nine questions on the Self-Reactions to PWS subscale. Repeated Measures ANOVA comparing individual participant Self-Reactions to PWS scores indicated not significant main effects for between subject effects of condition (Linear: $F=1.35$, $p=0.272$, $\eta^2=0.137$) and within subject comparisons of condition and timing ($F=0.96$, $p=0.441$, $\eta^2=.102$). While multivariate, repeated measures analysis of variance indicated significant main effects for within subjects effects for condition ($F=3.4$, $p=0.019$, $\eta^2=0.29$). Participants in the listening group had relatively lower scores in all subtests than participants in the reading group (see figure 8). Post hoc pairwise comparisons indicated significant differences between pre-test and immediate scores ($p=0.00$), pre- and post-test scores ($p=0.01$), and immediate and post-test scores ($p=0.00$).

Immediately after the intervention, participants showed a significant increase in negative Self-Reactions to PWS scores compared with pre-test (+5.9). At post- test, both groups showed a decrease in negative Self-Reactions to PWS scores when compared to both pre-test and immediate testing.

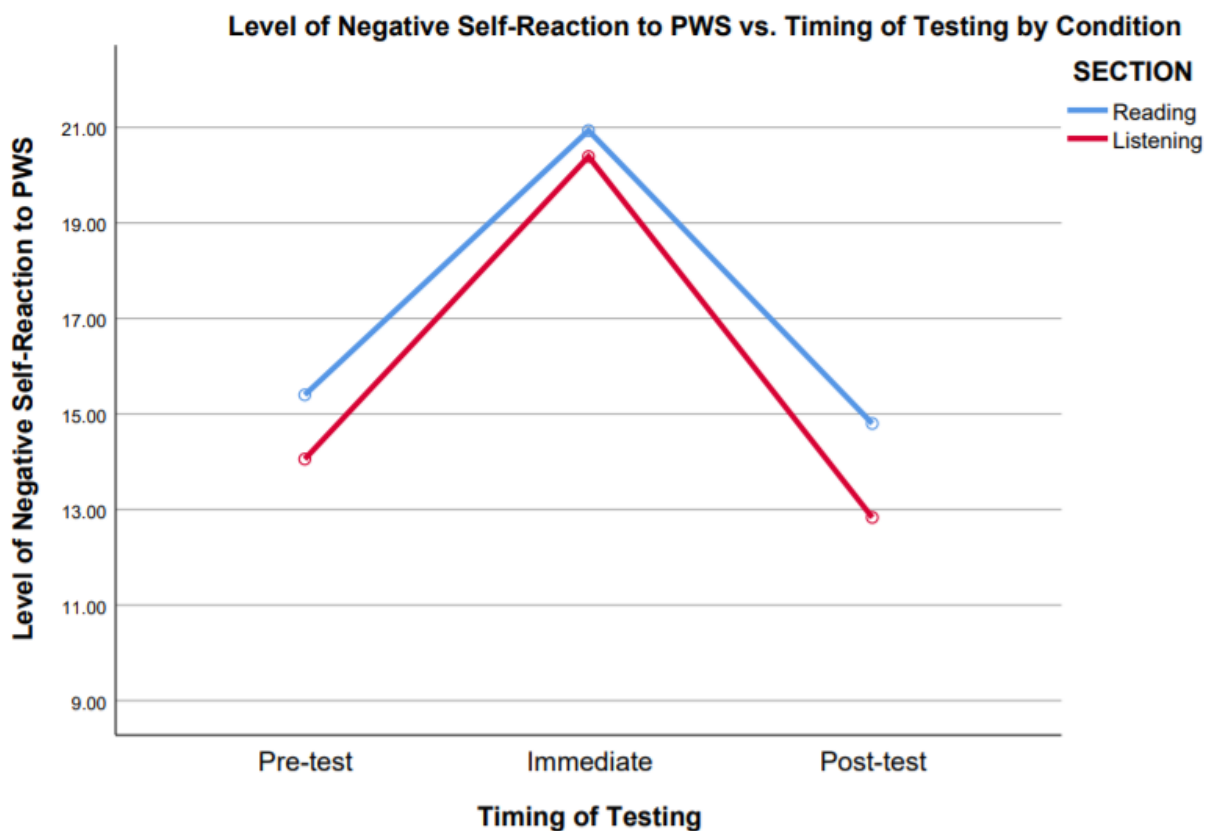
The IDM for the subscale Self-Reactions to PWS subscale score is -5. The current study showed an increase in positive attitudes from pre-test to post-test on the Self-Reactions to PWS subscale score from 10 to 19 (+9) (St. Louis, 2011). This indicates an overall increase in positive attitudes toward participant Self-Reactions to PWS (see Figure 8 for additional details).

Table 3*Self-Reactions to PWS Scores for Pre-test, Immediate, and Post-test*

Condition	Pre-test	Immediate	Post-test
	\bar{x} (SD)	\bar{x} (SD)	\bar{x} (SD)
Reading (n=15)	15.4 (3.4)	20.9 (1.2)	14.8 (3.6)
Listening (n=18)	14.1 (1.6)	20.4 (1.2)	12.8 (1.9)
Total (N=33)	14.7 (2.6)	20.6 (1.5)	13.7 (2.96)

Figure 8

Mean Pre-, Immediate, and Post-test Scores on Self-Reaction to PWS Subscale by Condition



Note. Figure 8 depicts a significant increase in negative self-reactions to PWS at immediate testing and a significant decrease in negative self-reactions to PWS at post-testing.

Total Group POSHA-S Trends Compared to International Database. To address the third question about how the opinions/ responses of students in the present study compare with other groups of non-SLP college students and the IDM and in the POSHA-S international database, descriptive statistics of pre-test scores (N=39) were compared with scores from similar participants in the POSHA-S database. Of all participants surveyed (N=39), the OSS on the POSHA-S in the pre-test survey was a score of 28 and the POSHA-S OSS in the post-test survey was a score of 34. These scores are similar to POSHA-S OSS scores for non-SLP undergraduate students. St Louis, Przepiorka and colleagues reported a mean POSHA OSS score of 24 for their non-SLP US undergraduate college student sample (St. Louis, Przepiorka, et al., 2014). The IDM POSHA-S OSS score is eight. Therefore, the typical non-SLP undergraduate student population is more positive than the median international attitude toward PWS by 14 to 18 points. The students participating in this survey were consistent with those trends.

Chapter 4: Discussion

In this study, we examined three questions. First, we examined whether college students who do not stutter exhibited an attitude change toward PWS immediately and one week after participating in an intervention based on emotional, humorous, and educational information about two PWS, and whether attitudes immediately after the intervention and one-week post intervention differed for groups which a) listened to information in podcast form or b) read a written transcript of the same podcast. Secondly, we identified whether including information on listener responsibilities in the intervention produced a change in the Self-Reactions to PWS subscale immediately after the intervention and one-week later. Lastly, we compared how the opinions/ responses of students in the present study compare with other groups of non-SLP college students and the IDM and in the POSHA-S international database.

Do College Students Who do not Stutter Show an Attitude Change Following the Intervention?

There were statistically significant changes between participant attitudes from pre-testing to post-testing toward PWS. These findings suggest that a single emotional, humorous, and educational podcast, in written or listening form, has a strong potential to change college student attitudes towards PWS. Possible reasons for this attitude change can be explained by the anchoring-adjustment hypothesis where participants' attitudes at pre-testing are anchored by their personal experiences of normal speech disfluency. They associate speech disfluency as occurring when they are tired, anxious, or flustered. After hearing the story of a PWS, participants seemed to adjust their attitude through quick, unconscious shifts in judgment to a more positive stance towards PWS. This explanation aligns with previous literature suggesting

that stuttering educational information facilitates this positive attitude adjustment (MacKinnon et al., 2007).

The POSHA-S included information regarding the attitudes of the participants regarding mental illness and obesity in addition to their views about stuttering. Scores on the Mental Illness/ Obesity subscale of the POSHA-S did not change from pre- to post test, likely because the intervention was targeted towards increasing positive attitudes about stuttering. There was no evidence of crossover of attitude change into the subscales not targeted directly in the intervention.

How Similar Are Attitude Changes Across the Conditions?

While there was definitive positive change in attitudes towards PWS from pre- to post-test following an intervention, there was not a clear preference for the listening condition over the reading condition. Unexpectedly, participants in the listening condition started with more positive attitudes towards PWS and changed in a similar direction and magnitude as their peers in the reading condition. The reading group scores were lower than the listening group at both pre- and post-test, but the amount of change was varied for the listening group.

The demographics of the two groups may have contributed to the more positive attitudes in the listening group. The listening group had PSEO (Post-Secondary Education Opportunity) students who are under 18 years old, whereas the reading group had none. These findings align with previous research suggesting that the participants under 18 may have identified as a peer with one of the PWS in the podcast. This exemplifies how matching the age of the participants to

the presenter of the stuttering information may be an important contributing factor to increased positive attitudes in the listening group.

In the present interventions, the shift in judgments toward PWS, as previously explained by the anchoring-adjustment hypothesis, occurred both for listening to and reading a transcript of a podcast of a PWS' life experience. Either of these formats seem to be effective presentation methods to change college student attitudes toward people who stutter.

In one subscale, Beliefs about PWS, the interaction between condition and timing of the assessment (pre/post) approached significance. This suggests that for this one subscale, there may have been some additional benefit to the group of participants who listened to the podcast vs. reading it. Future research with a larger sample size and the same interventions is necessary to further identify the trends for this subscale.

**Does Including Information on Listener Responsibilities
in the Intervention Produce a Change
in the Self-Reactions to PWS Subscale?**

The same day of the intervention, participants completed an immediate Self-Reaction toward PWS subscale. Scores on this immediate assessment differed from both pre- and post-test scores on this subscale in a unique way. College students in both conditions showed an immediate increase in their negative reaction to PWS when assessed the day of the intervention and then a decrease one week later in their scores for negative reaction below the level of their pre-test response. In other words, for both conditions, the post-test self-reaction to PWS was more positive than at the onset of the study, but only following a spike in negative reaction right at the time of the intervention.

This negative spike may be due to participants having an immediate defensive reaction to the information and emotion portrayed in the intervention. Hearing a PWS describe the positive and negative impacts stuttering has had on their lives may have caused a strong “I’m so glad that’s not me” response in listeners. Further, as the listener responsibilities section of the podcast discusses how people who don’t stutter should respond when speaking with PWS, it is possible that listeners became more aware of their actions when talking with PWS. They may have felt personally attacked and exhibited a negative reaction to being told that their behavior is incorrect which was then reflected in the negative spike on Self-Reactions to PWS subscale.

Considering both the immediate increase in the participants negative reaction to PWS and the trend of an overall increase in positive attitudes, the current study would suggest that individuals who listen to a podcast of PWS may have gained knowledge regarding appropriate listener reactions to PWS. For example, participants in the intervention at post-test identified appropriate ways to help or accommodate a PWS when speaking with them, reported increased comfort have a PWS as a core person in their life, and reported a higher willingness to imagine themselves as a PWS. Further, participants identified an increased knowledge of sources of information about PWS. Participants may have gained information regarding resources based on information about stuttering mentioned in the podcast (stuttering.org, National Stuttering Association Conference, StutterTalk podcast, etc.). Overall these findings on the Self-Reaction subscale suggest that including listener responsibilities in the intervention was an important factor affecting a participant’s self-reaction to a PWS. Furthermore, this trend suggests college students can effectively learn and integrate appropriate reactions to PWS a few weeks after an intervention even if their initial reaction was negative.

How Do the Responses of Students in the Present Study Compare with Other Students in the POSHA-S International Database?

Scores for college students in this study were compared to the overall median scores of the general public in the POSHA-S. This database includes attitudes about stuttering from people living in a variety of first and second world countries. The findings in this current study are consistent with evidence from the POSHA-S database that people with a higher level of education, such as students in college, have more positive attitudes toward PWS than the general public (Swartz et al., 2009; Koutsodimitropoulos et al., 2016; Epidemiology of Public Attitudes Toward Stuttering St. Louis Chapter 1). This difference in attitudes is likely due to more educated individuals having a broad range of experiences with different types of people compared with individuals who have had less formal education (Swartz et al., 2009; Koutsodimitropoulos et al., 2016; Abdalla, 2015).

The finding that college students in this current study had more positive attitudes toward PWS is also consistent with previous findings that people from North America tend to have more positive attitudes toward PWS than individuals from Western Europe, Eastern Europe, the Middle East, Africa, and Asia (Klompas & Ross, 2004; Ling Ip et al., 2012; Ozdemir et al., 2011; Przepiorka et al., 2013; St. Louis, et. al., 2016; Valente et al., 2016). A further reason for the higher-than-international-median scores in this study may be that participants were identifying as a peer to the PWS who presented stories in the intervention. Past research has indicated that a presumed connection to the PWS contributes to more positive attitudes about stuttering (Flynn & St. Louis, 2011).

Limitations

While the research shows an increase in positive attitudes for all participants following a single intervention, there are some limitations to these findings.

One limitation of the research is participant retention (attrition) due to the possibility that participants became frustrated or uninterested with an initial technical error on the electronic survey. This may have affected participant retention. In this pre- post-test design, we cannot rule out the possibility of testing effects. A second limitation of the research is that participants may have responded differently from the first attempt to the second attempt of the pre-test simply because the same measure was repeated. A third limitation of the research involves how the podcast itself was relatively short at approximately 30 minutes to listen to and 14 minutes to read, yet some participants could have lost interest during the task. Another limitation includes the quasi-experimental nature of the group design. The study was completed using pre-existing groups of students enrolled in specific courses, which reduced the ability to make causal statements when comparing the effects of the listening vs reading condition. Pre-existing group differences such as one group having lower POSHA-S scores at the onset of the project, may have confounded some of the effects.

While the survey tool, the POSHA-S, is an evidence-based, reliable, and valid measure, data collection and result analysis procedures were complex. The scoring process and complete POSHA-S analysis were completed by the central researcher, resulting in a variety of complexities in obtaining the raw data. Therefore, the analysis process limited researcher control of analysis.

A fifth limitation of this research may be found in asking participants to self-report their attitudes. With self-reported methodology, it is unclear whether implicit biases, not captured by this study, are present that may affect individuals' attitudes and actions towards PWS.

Our general trends did not suggest a meaningful difference between listening and reading conditions, except on the Self-Reactions to PWS subscale. A sixth limitation of the current research may be attributable to the precision of the measurement tool, a need for a slightly larger sample size, and the question of whether increased intensity of intervention would be helpful to compare discrepancies between listening to and reading the podcast. Following careful consideration of the limitations, the current study findings still present compelling support for the potential power to change college student attitudes towards PWS through a short intervention such as listening to a podcast.

Future Directions

Future research may be conducted to identify the generalizability of attitude change to a wider range of educational majors in college through increasing the sample size and including participants from several departments. To identify more clearly statistically significant differences by condition, a future study may be completed with a larger sample size. A future study may be conducted to identify attitude change through examining measures of both implicit and explicit bias.

One application of these findings, reducing bias through a short-term intervention such as listening to a podcast, is in training individuals who are in contact with a large amount of people, including PWS, on a daily basis. A future study or workplace assessment could replicate the findings of this study for alternate populations of individuals such as baristas in coffee shops,

salespersons, servers, cashiers, fast food workers, and paramedics. These individuals are frontline people who interface broadly with the public and therefore could make a significant increase in effective listener behaviors to increase communication effectiveness for all individuals, regardless of if they are PWS.

References

- Abdalla, F. (2015). Changing attitudes toward stuttering. In K. O. St. Louis (Ed.), *Stuttering Meets Stereotype, Stigma, and Discrimination* (106-128). Morgantown, WV: West Virginia University Press.
- Bebout, L., & Arthur, B. (1992). Cross-cultural attitudes toward speech disorders. *Journal of Speech and Hearing Research*, 35, 49-56.
- Boyle, M.P. (2017). Personal perceptions and perceived public opinion about stuttering in the United States: Implications for anti-stigma campaigns. *American Journal of Speech-Language Pathology*, 26(3), 921-938.
- Boyle, M.P., Blood, G.W., & Blood, I.M. (2009). *Effects of perceived causality on perceptions of persons who stutter*. *Journal of Fluency Disorders*, 34(3), 201-218.
- Collins, C.R. & Blood, G.W. (1990). Acknowledgment and severity of stuttering as factors influencing nonstutterers' perceptions of stutterers. *Journal of Speech and Hearing Disorders*, 55(1), 75-81.
- Digest of Education Statistics. (2017). Retrieved from https://nces.ed.gov/programs/digest/current_tables.asp
- Doody, I., Kalinowski, J., Armson, J., & Stuart, A. (1993). Stereotypes of stutterers and nonstutterers in three rural communities in Newfoundland. *Journal of Fluency Disorders*, 18, 363-373.

- Flynn, T.W. & St. Louis, K.O. (2011). Changing adolescent attitudes toward stuttering. *Journal of Fluency Disorders*, 36(1), 110-121.
- Gabel, R.M. (2006). Effects of stuttering severity and therapy involvement on attitudes towards people who stutter. *Journal of Fluency Disorders*, 31, 216-227.
- Goldstein, C. (Speech-Language Pathologist). (2018, December 2). *Advocating with Netflix: The open and honest stuttering edition* [Audio podcast]. Retrieved from <http://stuttertalk.com/advocating-with-netflix-the-open-and-honest-stuttering-edition/>
- Healey, E.C., Gabel, R.M., Daniels, D.E. & Kawai, N. (2007). The effects of self-disclosure and non self-disclosure of stuttering on listeners' perceptions of a person who stutters. *Journal of Fluency Disorders*, 32, 51-69.
- Hughes, S. (2008). *Exploring attitudes toward people who stutter: A mixed model approach* (Doctoral dissertation). Retrieved from https://www.researchgate.net/publication/228394212_Exploring_attitudes_toward_people_who_stutter_A_mixed_model_approach
- Hughes, C.D., Gabel, R.M., & Palasik, S.T. (2017). Examining the relationship between perceptions of a known person who stutters and attitudes toward stuttering. *Canadian Journal of Speech-Language Pathology and Audiology*, 41(2), 237-252.
- Hughes, S., Gabel, R., Irani, F., & Schlagheck, A. (2010a). University students' explanations for their descriptions of people who stutter: An exploratory mixed model study. *Journal of Fluency Disorders*, 35, 280-298.

- Hughes, S., Gabel, R., Irani, F., & Schlagheck, A. (2010b). University students' perceptions of the life effects of stuttering. *Journal of Communication Disorders*, 43, 45-60.
- Hurst, M.I., & Cooper, E.B. (1983). Employer attitudes toward stuttering. *Journal of Fluency Disorders*, 8(1), 1-12.
- Ip, M.L., St. Louis, K.O., Myers, F.L. & Xue, S.A.(2012). Stuttering attitudes in Hong Kong and adjacent mainland China. *International Journal of Speech-Language Pathology*, 14, 543-556.
- Irani, F., Abdalla, F., & Gabel, R. (2012). Arab and American teachers' attitudes toward people who stutter: A comparative study. *Contemporary Issues in Communication Sciences and Disorders* 39, 12-20.
- Kittilstved, T. (2014). *Education and changing the perceptions of stuttering*. Paper presented at the National Conference on Undergraduate Research at the University Kentucky-Lexington.
- Klompas, M. & Ross, E. (2004). Life experiences of people who stutter, and the perceived impact of stuttering on quality of life: Personal accounts of South African individuals. *Journal of Fluency Disorders*, 29, 275-305.
- Koutsodimitropoulos, E., Buultjens, M., St. Louis, K.O., & Monfries, M. (2016). Speech pathology student clinician attitudes and beliefs towards people who stutter: A mixed-method pilot study. *Journal of Fluency Disorders*, 47, 38-55.

- Lake, T.P., Blanchet, P.G., Radloff, T.L., & Klonsky, B.G. (2009). Undergraduate and graduate students' perceptions of an instructor who stutters. *Contemporary Issues in Communication Sciences and Disorders*, 36, 26-35.
- MacKinnon, S.P., Hall, S., & MacIntyre, P.D. (2007). Origins of the stuttering stereotype: Stereotype formation through anchoring-adjustment. *Journal of Fluency Disorders*, 32, 297-309.
- Manning, W.H., & DiLollo, A. (2018). Clinical decision making in fluency disorders: Fourth edition. San Diego, CA: Plural Publishing, Inc.
- Manning, W.H., & Beachy, T.S. (1995). Humor as a variable in the treatment of fluency disorders. In C.W. Starkweather & H.F.M. Peters (Eds.), *Stuttering: Proceedings of the First World Congress on fluency disorders* (Vol. II pp. 414-416). International Fluency Association.
- Manning, W. H. (1999). Progress under the surface and over time. Mahwah, NJ: Lawrence Earlbaum, Inc.
- Mayo, R., Mayo, C.M, Gentry, A., & Hildebrandt, M. (2008). Can listeners' attitudes towards person who stutter be modified? Presented at the annual convention of the American Speech-Language-Hearing Association. Chicago: IL.
- Mayo, R. & Mayo, C.M. (2013). College students' perspectives on dating a person who stutters. *College Student Journal* (169-177).

- McGee, L., Kalinowski, J., & Stuart, A. (1996). Effect of a videotape documentary on high school students' perceptions of a high school male who stutters. *Journal of Speech-Language Pathology and Audiology*, 20, 240-246.
- McInerny, N. (Producer). (2018, November 6). T-T-T-Today, junior! [Audio podcast]. Retrieved from <https://www.apmpodcasts.org/ttfa/2018/11/t-t-t-today-junior/>
- Miller, T. (2015). *Stuttering in the movies: Effects on adolescents' perceptions of people who stutter* (master's thesis). Retrieved from <https://cedar.wvu.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1412&context=wwuet>
- Ozdemir, R.S., St. Louis, K.O., & Topbas, S. (2011). Stuttering attitudes among Turkish family generations and neighbors from representative samples. *Journal of Fluency Disorders*, 36, 318-333.
- Panico, J., Healey, E.C., Brouwer, K., Susca, M. (2005). Listener perceptions of stuttering across two presentation modes: A quantitative and qualitative approach. *Journal of Fluency Disorders*, 30(1), 65-85.
- Przepiorka, A.M., Blachnio, A., St. Louis, K.O., & Wozniak, T. (2013). Public attitudes toward stuttering in Poland. *International Journal of Language and Communication Disorders*, 48(6), 703-714.
- Salas-Provance, M.B., Erickson, J.G., & Reed, J. (2002). Disabilities as viewed by four generations of one hispanic family. *American Journal of Speech-Language Pathology*, 11, 151-162.

- Snyder, G.J. (2001). Exploratory research in the measurement and modification of attitudes toward stuttering. *Journal of Fluency Disorders*, 26(2), 149-160.
- St. Louis, K.O. (2008). Surveying public attitudes toward stuttering: Considerations of sample size. Technical paper presented at the annual convention of the American Speech-Language-Hearing Association. Chicago, IL.
- St. Louis, K.O. (2011). The Public Opinion Survey of Human Attributes-Stuttering (POSHA-S): Summary framework and empirical comparisons. *Journal of Fluency Disorders*, 36, 256-261.
- St. Louis, K.O. (2012a). Research and development on a public attitude instrument for stuttering. *Journal of Communication Disorders*, 45, 129-146.
- St. Louis, K.O. (2012b). POSHA-S public attitudes toward stuttering: Online versus paper surveys. *Canadian Journal of Speech-Language Pathology and Audiology*, 36(2), 116-122.
- St. Louis, K.O., Prepiorka, A.M., Beste-Guldborg, A., Williams, M.J., Blachnio, A., Guendouzi, J., Reichel, I.K., & Ware, M.B. (2014). Stuttering attitudes of students: Professional, intracultural, and international comparisons. *Journal of Communication Disorders*, 39, 34-50.
- St. Louis, K.O., Williams, M.J., Ware, M.B., Guendeouzi, J., & Reichel, I.K. (2014). The Public Opinion Survey of Human Attributes-Stuttering (POSHA-S) and Bipolar Adjective Scale (BAS): Aspects of validity. *Journal of Communication Disorders*, 50, 36-50.

- St. Louis, K.O. (2015). *Stuttering Meets Stereotype, Stigma, and Discrimination*. Morgantown, WV: West Virginia University Press.
- St. Louis, K.O. & Flynn, T.W. (2018). Maintenance of Improved Attitudes Toward Stuttering. *American Journal of Speech-Language Pathology*, 27, 721-736.
- St. Louis, K.O., Sonsterud, H., Lejla, J.Z., Tomaiuolo, D., Del Gabo, F., Caparelli, E., Theiling, M., Flobakk, C., Helmen, L.N. Heitmann, R.R., Kvenseth, H., Nilsson, S., Wetterling, T., Lundstrom, C., Daly, C., Leahy, M., Tyrrell, L., Ward, D., & Wesierska, M. (2016). Public attitudes toward stuttering in Europe: Within-country and between-country comparisons, *Journal of Communication Disorders*, 62, 115-130.
- Swartz, E., Gabel, R., & Irani, F. (2009). Speech-Language Pathologists/ Attitudes Toward People Who Stutter. *Canadian Journal of Speech-Language Pathology and Audiology*, 33(2), 99-105.
- Turnbaugh, K., Guitar, B., & Hoffman, P. (1981). The attribution of personality traits: The stutterer and nonstutterers. *Journal of Speech and Hearing Research*, 24, 288-291.
- Valente, A.S., St. Louis, K.O., Leahy, M., Hall, A., & Jesus, L.M. (2017). A country-wide probability sample of public attitudes toward stuttering in Portugal. *Journal of Fluency Disorders*, 52, 37-52.
- White, P.A. & Collins, S.C. (1984). Stereotype formation by inference. *Journal of Speech, Language, and Hearing Research*, 27(4), 567-570.

Woods, C.L., & Williams, D.E. (1976). Traits attributed to stuttering and normally fluent males.

Journal of Speech and Hearing Research, 19, 267-278.

Appendix

Appendix A: Recruitment and IRB Documentation

Hello everyone!

I'd like to invite you to participate in my Master's thesis research and win an Amazon gift card!

My name is Hailey Nelson and I'm a first year Communication Sciences and Disorders graduate student. I am conducting a research study examining attitudes of college students who do not stutter toward stuttering and people who stutter.

To participate you must: 1) be enrolled in a course taught by Dr. Kelly Branam 2) be at least 18 years of age 3) NOT be a Communication Sciences and Disorders major and 4) do NOT have a fluency disorder/ stutter.

In this research you would be asked to complete a 15 minute in-class online survey, listen to a podcast or read a short article as in-class activity, and complete a follow-up in-class online survey.

You have the chance to **win one of two \$25 Amazon gift cards** following full participation in the research procedures.

In the survey link below, you will find more information regarding what participants will be required to do, risks, benefits, confidentiality, and the voluntary nature of this research study in the informed consent form. If you have any questions you may contact me, Hailey Nelson, at hmnelson@stcloudstate.edu or my thesis advisor Dr. Janet Tilstra at jstilstra@stcloudstate.edu.

I will be in your class on Friday (3/15) to further discuss and survey and answer any questions.

https://stcloudstate.co1.qualtrics.com/jfe/form/SV_6svsjZvVTXVvI6F

Thank you,

Hailey Nelson, B.S.

St. Cloud State University

Communication Sciences and Disorders

Graduate Student Clinician

hmnelson@stcloudstate.edu



Institutional Review Board (IRB)

720 4th Avenue South AS 210, St. Cloud, MN 56301-4498

Name: Hailey Nelson

Email:

IRB PROTOCOL

hmnelson@stcloudstate.edu

DETERMINATION:

Exempt Review

Project Title: Changing Attitude Toward People Who Stutter

Advisor Janet Tilstra

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects. Your project has been: **APPROVED**

Please note the following important information concerning IRB projects:

- The principal investigator assumes the responsibilities for the protection of participants in this project. Any adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.).
- For expedited or full board review, the principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension.
- Exempt review only requires the submission of a Continuing Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed.
- Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates.
- The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time.

If we can be of further assistance, feel free to contact the IRB at 320-308-4932 or email ResearchNow@stcloudstate.edu and please reference the SCSU IRB number when corresponding.

IRB Chair:

Dr. Benjamin Witts
Associate Professor- Applied Behavior Analysis
Department of Community Psychology, Counseling, and Family Therapy

IRB Institutional Official:

Dr. Latha Ramakrishnan
Interim Associate Provost for Research
Dean of Graduate Studies

Changing Attitudes of College Students Toward People Who Stutter

Your child is being asked to participate in a research study exploring the attitudes of college students toward stuttering and the ability for these attitudes to change in a positive direction. In order to participate in the study, your child must be a student at St. Cloud State University enrolled in Introduction to Anthropology 101 by Dr. Kelly Branam, *not* a Communication Sciences and Disorders major, and *not* have or previously had a fluency disorder/stutter. We ask that you read this description of the study before agreeing to allow your child to participate.

Background Information:

The purpose of this study is to identify and examine the attitudes of college students who do not stutter toward stuttering before and after two interventions 1) an emotional, humorous, and educational podcast 2) a written dictation of the podcast. Our specific interests for this study are to identify if college student attitudes toward people who stutter can be changed in a positive direction and any patterns. Another interest involves which factors and interventions, or means to shift attitudes, college students' attitudes toward stuttering are most positively impacted by.

Procedures:

If you agree to allow your child to be in this study, they will be asked to fill out an in-class online survey. In the survey, they will be asked to respond to a variety of questions regarding your opinions toward five different human attributes: obesity, left-handedness, stuttering disorders, mental illness, and intelligence. In addition, you will be asked to respond to questions about your values, opinions, and real or hypothetical reactions to stuttering. The survey takes approximately

15 minutes to complete. They will then be asked to engage in an in-class 30-minute podcast involving a poetry slam discussing stuttering and a short Likert style survey. They will then be asked to complete the same survey again in 3 weeks in the same procedure as previously mentioned.

Risks and Benefits of Being in the Study:

There are no risks to individuals participating in this survey beyond those that exist in daily life. That is, the questionnaire includes questions about five different human attributes including obesity, left-handedness, stuttering disorder, mental illness, and intelligence involving demographic information and opinions related to the human attributes. The questions also involve a specific focus on the disorder of stuttering. For some individuals, there may be discomfort recalling specific difficult opinions related to the human attributes, specifically stuttering. As described below, all information will be examined in aggregate form and confidentially.

After completing pre- and post- surveys, they have the option of entering a drawing for one of two \$25 Amazon gift cards. Through learning information about people who stutter and the nature of stuttering, benefits to participants may include increased knowledge about listener responsibilities when speaking with a person who stutters, the cause of stuttering, what stuttering is and sounds like, the life impact stuttering has on an individual, and an increased awareness for stuttering overall.

Possible benefits to participating in the research study include a deeper understanding of stuttering and the experiences of people who stutter. Researchers may better understand the role

of new media formats in providing information about people who stutter. Speech-Language Pathologists may better understand what factors to include in therapy for people who stutter. Society at large may benefit from an increased awareness about stuttering and people who stutter following the conclusion and publishing of the research results.

Confidentiality:

Your child's participation in this research will be completely confidential and data will be reported in aggregate. Data is collected using a program called Qualtrics. No names, e-mail addresses, computer IP addresses, or submission date and time will be captured when you submit your completed survey. If your child chooses to enter the gift card drawing, they will click on a link to a separate document where they will enter their contact information. This information will not be associated with their other responses.

In any sort of report we might publish, we will not include any information that will make it possible to identify any participant. The records of this study will be kept in a password protected computer database; only the lead researcher and the creator of the survey will have access to the records.

Research Results

At your or your child's request, we would be happy to provide a summary of the research results when the study is completed.

Voluntary Nature of the Study:

Your decision whether or not to allow your child to participate will not affect their current or future relations with St Cloud State University. If you decide to allow your child to participate, they are free to withdraw at any time without affecting those relationships. They may skip any questions they do not wish to answer. While taking the survey, they may stop at any time by closing their internet browser.

Contacts and Questions:

The primary researcher conducting this study is Hailey Nelson B.S., Speech Language Pathology Graduate Student, Department of Communication Sciences and Disorders, St Cloud State University, St Cloud, MN 56301 and a group of graduate students interested in the topic. If you or your child have any questions or would like research results, please e-mail Hailey Nelson at hmnelson@stcloudstate.edu or Dr. Tilstra at jstilstra@stcloudstate.edu or 320-308-3029. Please print a copy of this consent form for your records, if you so desire.

Acceptance to Participate:

When you sign your name on the line with the “x” it means you understand this information and have agreed to allow your child to be a part of the study. If they do not like being in the study at any time, you or your child may stop and no longer participate by closing the internet browser.

I have read and understood the above consent form; I certify that my child is a student at St. Cloud State University enrolled in Introduction to Anthropology 101 by Dr. Kelly Branam, *not* a Communication Sciences and Disorders major, and has not had a fluency disorder/stutter.

If you decide to allow your child to participate, please return the assent form to:

Hailey Nelson

Department of Communication Sciences and Disorders

Brown Hall 103

720 Fourth Ave. S.

St. Cloud, MN 56301-0121

Parent Name (Printed)

X_____

(Parent Signature)Instructions

Consent Form

If you agree to be in this study, you will be asked to fill out an online survey. In the survey, you will be asked to respond to a variety of questions regarding your opinions toward five different human attributes: obesity, left-handedness, stuttering disorders, mental illness, and intelligence. In addition, you will be asked to respond to questions about your values, opinions, and real or hypothetical reactions to stuttering. The survey takes approximately 15 minutes to complete. You will then be asked to engage in a 30 minute in-person podcast involving a poetry slam discussing stuttering and a short Likert style survey. You will then be asked to complete the same survey again in 3 weeks in the same procedure as previously mentioned.

Risks and Benefits of Being in the Study:

There are no risks to individuals participating in this survey beyond those that exist in daily life. That is, the questionnaire includes questions about five different human attributes including obesity, left-handedness, stuttering disorder, mental illness, and intelligence involving demographic information and opinions related to the human attributes. The questions also involve a specific focus on the disorder of stuttering. For some individuals, there may be discomfort recalling specific difficult opinions related to the human attributes, specifically stuttering. As described below, all information will be examined in aggregate form and collected anonymously.

After completing pre- and post- surveys, you have the option of entering a drawing for one of two \$25 Amazon gift cards. Through learning information about people who stutter and the nature of stuttering, benefits to participants may include increased knowledge about listener

responsibilities when speaking with a person who stutters, the cause of stuttering, what stuttering is and sounds like, the life impact stuttering has on an individual, and an increased awareness for stuttering overall.

Possible benefits to participating in the research study include a deeper understanding of stuttering and the experiences of people who stutter. Researchers may better understand the role of new media formats in providing information about people who stutter. Speech-Language Pathologists may better understand what factors to include in therapy for people who stutter. Society at large may benefit from an increased awareness about stuttering and people who stutter following the conclusion and publishing of the research results.

Confidentiality:

Your participation in this research will be completely confidential and data will be reported in aggregate. Data is collected using a program called Qualtrics. No names, e-mail addresses, computer IP addresses, or submission date and time will be captured when you submit your completed survey. If you choose to enter the gift card drawing, you will click on a link to a separate document where you will enter your contact information. This information will not be associated with your other responses.

In any sort of report we might publish, we will not include any information that will make it possible to identify any participant. The records of this study will be kept in a password protected computer database; only the lead researcher and the creator of the survey will have

access to the records.

Research Results

At your request, we would be happy to provide a summary of the research results when the study is completed.

Voluntary Nature of the Study:

Your decision whether or not to participate will not affect your current or future relations with St. Cloud Community Technical College or St Cloud State University. If you decide to participate, you are free to withdraw at any time without affecting those relationships. You may skip any questions you do not wish to answer. While taking the survey, you may stop at any time by closing your internet browser.

Contacts and Questions:

The primary researcher conducting this study is Hailey Nelson B.S., Speech Language Pathology Graduate Student, Department of Communication Sciences and Disorders, St Cloud State University, St Cloud, MN 56301 and a group of graduate students interested in the topic. If you have any questions or would like research results, please e-mail Hailey Nelson at hmnelson@stcloudstate.edu or Dr. Tilstra at jstilstra@stcloudstate.edu or 320-308-3029.

Please print a copy of this consent form for your records, if you so desire.

Statement of Consent:

I have read and understood the above consent form, I certify that I am a college student at St. Cloud State University enrolled in Introduction to Anthropology 101 by Dr. Kelly Branam, at least 18 years old (unless you are under 18 AND have completed a parent consent and child assent form) , not a Communication Sciences and Disorders major, and have not had a fluency disorder/stutter. By clicking the submit button to enter the survey, I indicate my willingness to voluntarily take part in the study.

Appendix B: Survey

Dear participant,

Thank you for agreeing to participate in this research project designed to explore public opinion about a number of human attributes and characteristics in various places around the world. The following survey asks for your honest opinions about five different human attributes and some information about yourself to help in interpreting the results from many people. The survey also asks for more detailed opinions about one of the human attributes.

Please do not type your name, address, or telephone number anywhere on the survey.. It is important that your name is not included so complete confidentiality can be maintained.

Completely filled-out surveys will help provide a clearer picture of public opinion. Nevertheless, as you fill out the survey, you are free to omit any items or stop responding for any reason, without any prejudice or penalty.

The survey asks for a few short answers and for clicking boxes ☐ that apply to you. But mostly it involves making judgments by **clicking** your answer. Some of these judgments are numbers on number scales, while others are “Yes,” “No,” or “Not sure” choices. There are no right or wrong answers! *We ask you to work quickly and mark your first impression.* Please do not go back and change any of your responses unless you later discover that you did not understand an item or that you answered on the wrong line.

When you give your opinion, be sure to **select** the number, “?,” or word that **best represents your opinion**. On the number scales, you may select any number, but feel free to select the extreme negative or positive ends of the scale as well as the exact middle if one of those best shows your opinion. When you select a box, please put click in the box ☐.

Following are four examples. The first one shows someone's fairly positive opinion about being *tall*, the second, a very negative opinion about being *short*, neutral about *wearing glasses*, and either has no opinion or knows nothing about *wearing a hearing aid*.

My general impression of a person who...	Very negative	Somewhat negative	Neutral	Somewhat positive	Very positive	Not sure
is tall	1	2	3	④	5	?
is short	①	2	3	4	5	?
wears glasses	1	2	③	4	5	?
wears a hearing aid	1	2	3	4	5	②

Thank you very much for your help.

Kenneth O. St. Louis, Ph.D.

Public Opinion Survey of Human Attributes–Stuttering (POSHA–S)

Please tell about yourself in this section.

Dates	Month	Day	Year
Today's date is:	e.g., January _____	e.g., 23 _____	e.g., 2017 _____
The date I was born was:	_____	_____	_____

Residence and Citizenship	Country	State (or Province)	City (or Town, Village, Region)
I now live in:	_____	_____	_____
I was born in:	_____	_____	_____

Check [✓] all that apply

I am: <input type="checkbox"/> Male <input type="checkbox"/> Female	I am/have been married: <input type="checkbox"/> Yes <input type="checkbox"/> No	I am/was a parent: <input type="checkbox"/> Yes <input type="checkbox"/> No
--	---	--

I have completed the following school levels:

<input type="checkbox"/> Primary (elementary) school (5-6 years total)	<input type="checkbox"/> 2-year university degree (about 14 years total)
<input type="checkbox"/> Middle (junior high) school (7-9 years total)	<input type="checkbox"/> 4-year university degree (about 16 years total)
<input type="checkbox"/> High school (11-13 years total)	<input type="checkbox"/> Masters or similar degree (about 18 years total)
<input type="checkbox"/> Trade/military/technical/other school	<input type="checkbox"/> Doctoral/professional degree (>18 years total)

My job or work situation now is...

<input type="checkbox"/> Student in school or university	<input type="checkbox"/> Unemployed or not working
<input type="checkbox"/> Working	<input type="checkbox"/> Retired

The job that I am best trained to do, or the job I worked at the longest, is (was):

My native language is: _____

I can also **easily understand and speak** the following languages:

1. _____ _____	2. _____ _____	3. _____ _____
-------------------	-------------------	-------------------

Circle the number (or ?) beside each characteristic or check [✓] the boxes that apply.

My family's income is [...] compared to the yearly incomes of...	Among the lowest	About average	Among the highest	Not sure		
my family's friends and relatives	1	2	3	4	5	?
all people in my country	1	2	3	4	5	?

My race is: _____

My religion is: _____

I would rate the following <u>aspects of my</u> <u>life now</u> as...	Very poor	Poor	Average	Good	Excellent	Not sure
my physical health	1	2	3	4	5	?
my mental health	1	2	3	4	5	?
my ability to learn new things	1	2	3	4	5	?
my speaking ability	1	2	3	4	5	?

For me, the <u>importance</u> (or priority) of each of these aspects in my life is ...	Never important	Usually <u>not</u> important	Equally important or not important	Usually important	Always important	Not sure
being safe and secure	1	2	3	4	5	?
being free to do what I want	1	2	3	4	5	?
spending quiet time alone	1	2	3	4	5	?
attending parties or social events	1	2	3	4	5	?
imagining new things	1	2	3	4	5	?
helping the less fortunate	1	2	3	4	5	?
having exciting but potentially “dangerous” experiences	1	2	3	4	5	?
practicing my religion	1	2	3	4	5	?
earning money	1	2	3	4	5	?
doing my jobs or my duty	1	2	3	4	5	?
getting things finished	1	2	3	4	5	?
figuring out how to solve important problems	1	2	3	4	5	?

Now, please give us your opinions about people with all the characteristics listed.

My <u>overall impression</u> of a person who...	Very negative	Somewh at negative	Neutra l	Somewh at positive	Very positive	Not sure
is obese (much overweight)	-2	-1	0	+1	+2	?
is left handed	-2	-1	0	+1	+2	?
has a stuttering disorder	-2	-1	0	+1	+2	?
is mentally ill	-2	-1	0	+1	+2	?
is intelligent	-2	-1	0	+1	+2	?

I <u>would want to be</u> a person who...	Strongly disagree	Somewha t disagree	Neutra l	Somewha t agree	Strongly agree	Not sure
is obese (much overweight)	-2	-1	0	+1	+2	?
is left handed	-2	-1	0	+1	+2	?
has a stuttering disorder	-2	-1	0	+1	+2	?
is mentally ill	-2	-1	0	+1	+2	?

are intelligent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-----------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Now, please give us more detailed opinions about the disorder of stuttering.

<u>PWS...</u>			Not sure
should try to hide their stuttering	Yes	No	?
should have jobs where they have to correctly understand and decide important things	Yes	No	?
are nervous or excitable	Yes	No	?
are shy or fearful	Yes	No	?
have themselves to blame for their stuttering	Yes	No	?
can make friends	Yes	No	?
can lead normal lives	Yes	No	?
can do any job they want	Yes	No	?

<u>If the following people stuttered, I would be concerned or worried...</u>			Not sure
my doctor	Yes	No	?
my neighbor	Yes	No	?
my brother or sister	Yes	No	?
me	Yes	No	?

If I were talking with a person who stutters, <u>I would</u> ...			Not sure
try to act like the person was talking normally	Yes	No	?
make a joke about stuttering	Yes	No	?
fill in the person's words	Yes	No	?
feel impatient (not want to wait while the person stutters)	Yes	No	?
feel comfortable or relaxed	Yes	No	?
feel pity for the person	Yes	No	?
tell the person to "slow down" or "relax"	Yes	No	?

I believe stuttering <u>is caused by</u> ...			Not sure
genetic inheritance	Yes	No	?
ghosts, demons, or spirits	Yes	No	?
a very frightening event	Yes	No	?
an act of God	Yes	No	?
learning or habits	Yes	No	?
a virus or disease	Yes	No	?

I believe stuttering <u>should be helped</u> by...			Not sure
other PWS	Yes	No	?
a speech and language therapist	Yes	No	?
people like me	Yes	No	?
a medical doctor	Yes	No	?

My <u>knowledge</u> about stuttering <u>comes from</u> ...			Not sure
personal experience (me, my family, friends)	Yes	No	?
television, radio, or films	Yes	No	?
magazines, newspapers, or books	Yes	No	?
the Internet	Yes	No	?
school	Yes	No	?
doctors, nurses, or other specialists	Yes	No	?

You have finished! Thank you very much.

How long did it take you to fill out the survey? _____ minutes

Pre-survey Amazon gift card drawing.

Q1 In order to be entered in the drawing for one \$25 Amazon gift cards for completing the pre-survey, please enter the following information. Please note, the information in this form is not associated in any way with your responses to the people who stutter attitude survey.

☐ First name (1) _____

☐ Last name (2) _____

☐ Email address (3) _____

☐ Telephone number (4) _____

Q2 If you want to opt out of the drawing, please click below:

☐ I do not wish to participate in the drawing. (1)

Q3 To ensure submission of your Immediate Change of Attitudes survey, please ensure you return to the prior webpage following submission of this drawing.

Amazon gift card drawing.

Q1 In order to be entered in the drawing for one of two \$25 Amazon gift cards, please enter the following information. Please note, the information in this form is not associated in any way with your responses to the people who stutter attitude survey.

☐ First name (1) _____

☐ Last name (2) _____

☐ Email address (3) _____

☐ Telephone number (4) _____

Q2 If you want to opt out of the drawing, please click below:

☐ I do not wish to participate in the drawing. (1)

Immediate change of attitudes survey.

Q1 Please respond to the following questions using the 5-point scale.

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
My understanding of the life experience of a person who stutters was changed by this presentation. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A person who stutters could hold any job that matches their interests and skills. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A person who
stutters is as
likely as a
person who
does not
stutter to have
a meaningful
romantic life.

(3)

All people
who stutter
are nervous
or anxious.

(4)



I should be
aware of my
listening
behaviors
when talking
with a person
who stutters.

(5)



Q2 If I were talking with a person who stutters, I would...

	Yes (1)	No (2)	Not sure (3)
Try to act like the person was talking normally (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make a joke about stuttering (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fill in the person's words (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel impatient (not want to wait while the person stutters) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel comfortable or relaxed (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel pity for the person (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tell the person to "slow down" or "relax" (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 Which section of Anthropology 101 are you enrolled in?

☐ Section 1 (1)

☐ Section 2 (2)

Q9 In order to anonymously link your pre- and post-test answers, we will create an individual code for you based upon the following two answers.

Q11 What is one activity or sport that you enjoy? (e.g. reading, tennis, singing)

Q13 What's the name of the (or an) elementary school you attended?

Q14 Did you complete the full pre-test survey before the in-class activity?

☐ Yes (4)

☐ No (5)

Q13 Click below to be directed to the pre-test completion drawing.

https://stcloudstate.co1.qualtrics.com/jfe/form/SV_4So38Ks3YxCgLbv

Q17 Thank you for participating.

Podcast transcription.

Interview #1

Chaya Goldstein: Hello everyone and welcome to Stuttertalk! Stuttertalk is dedicated to supporting people who stutter, their families, professionals, students, and the general public by talking openly about stuttering and by providing iii (block) information about stuttering. Stuttertalk can be found on stuttertalk.com or on iTunes or where ever you listen to your podcasts. Joining me today is Samantha Roybler. Samantha hi.

Samantha Roybler: Hey.

Chaya Goldstein: Thank you so much for joining me on this Sunday.

Samantha Roybler: Glad to be here.

Chaya Goldstein: I'm gonna introduce you to our lll(block) isteners.

Samantha Roybler: Sounds good.

Chaya Goldstein: Samantha Roybler is 16 years old, she is a sophomore who lives in Lincoln, Nebraska. She works part-time as a server in a retirement community and is an active m(block)ember on her slam poetry team at school. She first started taking interest in stuttering a-a-a-advocacy after attending Camp Say in 2017. So Sam I'm so glad that we're able to finally come together after a few computer glitches, but we made it.

Samantha Roybler: So am I.

Chaya Goldstein: Um take some time and eventually it all works out.

Samantha Roybler: Exactly.

Chaya Goldstein: Um I'm really excited to talk with you, Samantha, because um a few things have been uh brewing on my mind ever since I met you at the Friends 2018 Convention this past

year in Lincoln, Nebraska. Um it was there that I was blown away by your performance of the poem “Should My Child be Born With a Stutter?”. Uh which I wanna talk about first um and then more recently by an article that made it to the stuttering community news um called “Sam Spoke and Netflix Listened”. And so um I’m really excited uh to talk about particularly those two topics and um and uh we’ll start first by getting right to it by sharing with the listeners this poem called “Should My Child be Born With a Stutter?”. After which they’ll get to hear the inside scoop so hang in there because this is a fantastic poem.

Samantha Roybler: Ok Hi hhhhi my name is Samantha and I’m a freshman at Lincoln high school and this poem is called “Should My Child be Born With a Stutter?”. I am a person who stutters and according to current h(block)ypotheses drawn up in pristine labs exact cal-culations making science of the way I speak there’s an eighty percent chance that my future child will also be a person who stutters. An eighty per-percent chance that one thread of of DNA floating around in my genetic makeup will be delicately woven into intricate tapestries that that will be my child’s personal dialect heredity taking faith into it’s own hands. An eighty percent chance that my child’s tongue will get caught up against of the mouth of their mouth, and no the cat won’t have gotten their tongue this time it will be their own vocal cords. Holding their inspiration hostage. An eighty percent chance that my child’s words w-will be standing will be standing on the ledge of their tongue, a baby bird barely a month old ready to fly but something holds it back. Thousands of years of evolution t(block)elling them that they’ll soar but that one voice in the back of their minds sssay saying that their falls will keep anyone from trying. I have felt and I have dealt with all these things and more, and if one day my ear picks up four syllables getting caught between my child’s clenched teeth, if one day my child’s head is tilting backwards

as the words come out chopped. If one day soccer mom's on the playground are asking me if I drank while I was pregnant, birth defects have been on the rise. After all they'll say that they'll grow out of it. I don't care if they grow out of it. A speech impediment is not a childhood habit. They'll grow out of sucking their own thumb, they won't need to grow out of speaking with their own voice. It can be cured they'll say. Save your cures for those who need them. Stuttering is not a terminal illness. Our voices are a gift sent from God. if you'd give us time to finish our own sentences, then maybe you'd see we just aren't as flawed as you might believe. If one day my child's spirits are as low as mine once were before, I will drown their insecurities with securities and abilities. My home will be sanctuary for my child it's okay to pray out loud baby, God won't mind hearing what you have to say just a few times over again. And even if the wor-world around them doesn't have the courage to stare into the eyes of confidence, that child of mine will know that their voice has meaning, importance. And yes that voice of theirs may come chopped up in unique bits and pieces, but I will cherish each bit and each piece that they will give me. Because even the world's most precious stone shine brightest once chop chop chopped away from the dull rock around them. I want the words to fly out of their mouth, because even that baby bird standing on the ledge of that tree, sometimes needs just a little push from their momma. I will be there for my child when they are ready, put those thousands of precious stone words out into the world and into the ears of anyone who will listen. Dear God, let them listen. What I want for my child, whether he or she stutters, or societies perfect concept of fluency. I want them to love their words just like their mother had to learn too. Thank you.

Chaya Goldstein: Samantha, so that poem really moved me the first time I heard it and every single time since then. Can you share with me a little bit about the history of the poem perhaps how it came to be?

Samantha Roybler: Well I kind of wrote it when the time I was kind of deciding who I was as a person and as a person who stuttered. And both me and my mom were both kind of going through it as I figured this out for myself she was also trying to figure some stuff out about how to best help me and support me so and I honestly write to understand things in a better way and that's just how that came about and it's one that I really liked and I stuck with it and I put a lot of hours into it. And eventually it went out to bat.

Chaya Goldstein: Yea It definitely sounds like like you did. Um something I read about you is that um you are on your uh speech team at school is this the same as your slam poetry and if not what is it?

Samantha Roybler: No it's actually two separate teams um speech team uh it's definitely not what you think about when you think about speech team. Um a lot of people think about people staying at the front of a big room with visual aids and classic three point essay type of thing and it's really not like that. I do the more interpretive type of events there are a lot of events to choose from and basically I take a script about 10 minutes and I perform it in front of some judges and other contestants. and that's what a speech tournament looks like.

Chaya Goldstein: Wow so it seems like words and writing, be it spoken word or slam poetry or interpretive uh that they all thought that that really resonates with you deeply.

Samantha Roybler: Mhmm. It really does, it started to mean a lot to to me in the past cc(block)couple years.

Chaya Goldstein: And does stuttering at all come into play with this? How wwwas it the fuel that that that got this started or did they come together over time?

Samantha Roybler: Um stuttering definitely plays a big role in it um a lot of my writing is inspired by by my sts(block)stutter jjjust cause it gives me a lot to write about. The like um (block) the ddddiffficulties I face while being a person who stutters and how I got to be at a confident place where I am now um and it's definitely makes things more dddifficult I'd say on speech team um just cause no one's ever seen a stutterer at a speech team bu at a speech team speech ttournament bbb(block)before so it kinda takes people by surprise/ but I know I think it just adds to my passion to do it.

Chaya Goldstein: So yeah absolutely and I think that with when you show up um to the speech team with a stutter and perform in the way you do, and you are a very gifted and talented um performer, writer, and performer and artist um there's no doubt that that you provide a new perspective on how one can stutter and be extremely successful.

Chaya Goldstein: Now more recently um I got to read Steven Kaufman's article titled "Sam Spoke. Netflix Listened." Uh shout out to Steven Kaufman who is an incredible writer and one of the uh strongest voices for the N.S.A., the National Stuttering Aaaassociation. Um he wrote about you reaching out to Netflix because they had written a description about stuttering, particularly in the King's Speech, that you felt was inaccurate, and uh you got them to change it. I find that fascinating and amazing and I'd love to uh hear all about that, fill us in how that happened.

Samantha Roybler: Okay so I had um I always had known that the movie was there, but um well I when it came out I wasn't I was in that space in myself where I wasn't really proud of the way I spoke. I had never met anyone else who stuttered and I was just not really rrrrreready to embrace that part of myself, and therefore I wasn't too thrilled to go watch a two hour mmmm(block)mmmovie all ccccompletely about it. So I kind of avoided it until a little bit before it got released on Nnnetflix, and I actually watched it before it was released on to Netflix. And I don't know I watched it and I had my opinions about it, but I was still glad that we got the representation because really there's not a lot out there. Um but when they finally added it to um tto Netflix um I got onto watch it of course cause like um might as well wwwatch it again. And I read the description just for kicks and gigiiii kicks and giiigii and giiggles and I saw that it um stated that King George um sssstrugstugstruggles with an embarrassing sssstststutter until he seeks help from a speech thhhherapist. And I just didn't think that the term embarrassing really it wasn't too accurate, and it definitely didn't help pepepeople who were still trying to break out of their shell um like I had been trying to do. So I don't know cause I had broken out of that shell by then, or at least thought I got a good start on it. And I just thought that if I had heard that before I was ready, I don't I think it would have made me take a big step backwards and I just didn't want anyone else.

Chaya Goldstein: Yea

Samantha Roybler: To have to have to deal with that so yeah.

Chaya Goldstein: So so wow so then what'd you do?

Samantha Roybler: Well I complained to my friends first and um and they were like yeah that's not ththat's not right um. And this one friend I met at I met at camp his name is c- his name is

CaCarter. Um he's the one who actually he told me that I should write to them. At first I was like that's crazy no one's gonna listen. But about a week llllatlalllater I started to draft the the the eeemail, and I drafted it for about a week cause I wasn't gonna send it till I thought it was perfect. Um and then I don't know I sent it to my friend and he was like this is amazing you need to send it. So then I researched uh people I could send it to and I found the emails of five people in the Netflix executive people um and I sent it to them so yeah.

Chaya Goldstein: Wow what was their response?

Samantha Roybler: Um it took about a week I think and then their um chief of counsel was the one who responded to me first. And um he said that he would forforfforforward it on to their um director of the synopsis' and then a few days lllater I got the response from him saying that he was very moved by my eeemail, and that they had not done a good job with thisss d(block)description of the movie and that they were going to change it. And sure enough I went on to Netflix the second I got the eeemail the email and it had been changed.

Chaya Goldstein: Beautiful and I'm actually gonna read the description currently on Netflix for the King's speech it says during an intense period in history, King George struggles to communicate to the public and seeks help from speech therapist Lionel Logue so uh 'struggles to communicate' is that where the switch happened instead of embarrassing?

Samantha Roybler: Yep that is the ehh that is the ehhedit thhhthat they made I feel like it was much more aaaccurate representation of what we go of what we go through. Cause no one is denying the fact that stuttering can be hard at sometimes, and um we do ssstststruggle at certain times in our life. But no matter what we go no matter what wwwhat we go through I don't think that that anyone has the right to label it as embarrassing.

Chaya Goldstein: Um yea that's so true.

Samantha Roybler: Especially someone who doesn't know what it's all about.

Chaya Goldstein: Absolutely, well this speaks to the power of our voices and particularly in this case your voice. You may not have thought that there was a bbb(block)big chance in hearing a response from Nnnetflix Nnnetflix, but lo and behold you got an answer and you impacted um uh a really large industry. Although it might seem small um I think that this was a really big win so on behalf of all of us who stutter, thank you.

Samantha Roybler: Thank you I am really proud of it.

Chaya Goldstein: Um what are what are your thoughts on the matter as to how we can start to change this tide shifting slowly?

Samantha Roybler: Uh well I think just being as open and honest uh aaas you are comfortable with is really the great fffirst step um something that's really empowered me is self d(block)disclosure. So instead of trying to hide to hide it you just be out out front and honest when you first meet aaa person is to just say "hey I'm a person who stutters, if you could give me a few sseconds to finish my sentences I'd really appreciate it." Um so just trying to get more representations but might more representation by ourselves oooout there is probably a good fffirst step until until the media starts to follow suit.

Chaya Goldstein: Mhmm. Absolutely wow you have been involved with Camp Say. Um you've been involved with Friends, um and now of course the NSA. So a few years back, the way you talk about it is that stuttering was not something you wanted to talk about or embrace or really b(block)be okay with as part of yourself. But now I would say you've crossed over and you're on the opposite end where you're vocally speaking up about and for um stuttering. Um and perhaps

even being the voice for others is is this something younger self would have ever imagined happening?

Samantha Roybler: No honestly no um I don't I just never really thought of it as a part of myself I wanted other people to see me as. And now like I couldn't imagine myself when I was younger like sstss(block)ssstuststuttering has become such a large part of my identity now. Um but my younger self would've probably ran ran and hid if I'd ever thought about any of the things I was doing now. Like um my slam poetry team went to state champ championships thhhhhis past year. And I spoke in front of this giant room and I can't tell you how many pepeople were in it cause honestly I didn't want to know. Um but it was just such a big room and such a large platform that I never would've even imagined that I would've found myself there. Um so yeah it's really great.

Chaya Goldstein: It really really is and and to your point not only were you speaking in front of however many hundreds or thousands of people, but you were talking about stuttering.

Samantha Roybler: Yeah yeah I was making this part I had kept hhhhidden of myself for so long a very public mmmatter there are now um a couple of videos of me tataalking about it on um on Yyyoutube that anyone could see. And I definitely it's very vevevery much something that my younger self would not not have been so up for at the time.

Chaya Goldstein: Yea, yea, and it's something to be incredibly proud of because um traveling down that road is not easy. And to be fair, it's you're still on it you know stuttering stuttering is there to to um stay with us for life and so um.

Samantha Roybler: No go on.

Chaya Goldstein: To stay on course it takes courage and um I commend you for for all of the courage that that you display.

Samantha Roybler: Thank you so much that means a lot to me.

Chaya Goldstein: Of course.

Samantha Roybler: Yea.

Interview #2

Nora: Erin finds her people at this conference and it is wonderful she doesn't have to plan her usual escape routes and alternatives she can just be, she can just talk.

Erin: One of the the bbbest things we get to do is um some of my new friends and I we made a promise to not do um any word replacement so wwwhatever wwwe wanted to ssssssay we were going to say and nnnot uuse replacement words. I(block)it was really freeing I was able to just completely fffocus on what I was saying and that was it it was really freeing.

Nora: I love that. I just love the idea of all of you being like fuck it we're gonna wait for each other.

Erin: You know we did. We stuttered and and and you know we had like long repetitions and we blocked and like no one cared it was just we were literally just listening to what the other person was saying and couldn't have cared less about how they were sayin iit. It was great. It was iiiiit it was really magical honestly.

Nora: Now is stuttering really that terrible? Yes if you stutter, yes if you stutter in a world where people think it's funny or silly or means you're stupid, yes if it pushes you deep into your own

head and colors all of your experiences, yes if it's all tangled up with your anxiety and depression, yes and it's one of those things where the only thing wrong with stuttering is that it doesn't fit into a very narrow definition of what it means to speak well.

Erin: We all have this have th thi thhhis thing that like we're not allowed to talk about and even if we do ththththththere's not a lot of, yyyou can get plenty of sympathy, but ththere's not a lot of empathy. So there's not a lot of people who like truly understttand wwhwhwhat it's like.

Nora: I have not spoken with a lot of people like Erin or I haven't listened to a lot of people like Erin, the way I've listened to Erin. You know what I've done around stuttering kids or even stuttering adults? I've finished their sentences, I've moved the conversation forward because I assumed that I was doing the kind thing that I was saving them from the awkwardness of the situation when really I was just being kind of an a-hole, really it was my own discomfort my own awkwardness in the situation that I was saving myself from because who am I to say how someone should speak don't read the reviews of this podcast, people don't like how much I say like or my voice or really anything about me. Erin is still working with speech therapists, she's working on techniques to keep from stuttering but also techniques to build her confidence with her stuttering. At some points in our interview, Erin talked about different attitudes within the stuttering community. One is that the focus should be on what you're saying and not how you say it, which heck yes. One other focus is on keeping your chin up and not letting your stuttering get you down, which is hard for Erin because stuttering is hard. It's hard when people laugh at her or finish her sentences or pretend like her stutter doesn't exist when it's this thing that has largely shaped her life. So what does Erin want? Does she want people to talk to her like she doesn't stutter? Does she want people to acknowledge it, to ask questions, to ignore it? Yeah yes all of

those. She wants it to be normalized and she wants people to act like it's not happening, which basically just means don't finish her sentences don't rush to cure your own discomfort, let her bring it up if she wants to and then just be cool about it. Is that list of wishes and instructions confusing to you? Of course, it is. We are all so confusing even those of us who don't stutter, this desire to be understood and known is hardly ever perfectly aligned with our social situation, our mood, whatever else is going on. All of us are just a bunch of walking contradictions about how we'd like to move through this world. And all of that is just what Erin wants, she's not the official spokesperson of stuttering. She's just Erin and I'm just Nora and you're just you. But the way Erin and other people who stutter get through the world isn't just on them, you know. I don't think that Erin and other people who stutter need to be cured or fixed. I don't think it's on them to just speak better. I think it's on me and people like me to just listen better. I think that's the problem and that's pretty easily fixable.