Impact of Hope, Humor, and Self-Stigma on Flourishing and Acceptance in Adults Who Stutter

by

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Abstract

This study's purpose was to understand how humor is used as a coping strategy for people who stutter (PWS) and how humor contributes to an individual who stutters' (IWS) overall quality of life. Five factors were examined to encompass the overall experience of an IWS related to moments of disfluency including: (1) stigma, (2) coping, (3) humor, (4) well-being and flourishing, (5) hope, and (6) acceptance. Adults who stutter over the age of 19 were recruited through joining groups on social media platforms with consent from group hosts in addition to distribution through the National Stuttering Association (NSA). In summary, conclusions revealed that the use of positive humor led to greater flourishing, high hope led to increased self-stigma, and high hope was correlated with decreased flourishing in the lives of IWS.

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List of Abbreviations

PWS	People Who Stutter
IWS	Individual Who Stutters
PSSS	Perceived Stuttering Severity Scale
4S	Self-Stigma of Stuttering Scale
HSQ	Humor Styles Questionnaire
AHS	Adult Hope Scale
FS	Flourishing Scale
ADM	Acceptance of Disability Scale Modified
SLP	Speech Language Pathologist

Chapter I

Introduction

Stuttering can be defined as a chronic life condition that affects an IWS cognitive and social perspectives (Plexico et al., 2019, p. 53). In addition to its psychological components, stuttering is also defined as "a neurodevelopmental disorder characterized by disruptions in the production of fluent speech" and is multidimensional with no single etiology or known cause (Bloodstein et al., 1995; Wray & Spray, 2020, p. 2535). While certain life stressors are temporary, chronic stressors like stuttering are persistent and require consistent adaptation and management across the lifespan (Lazarus, 2000; Plexico et al., 2019). In the daily life of an IWS, disfluency can become a part of the IWS identity and shape their overall perception of well-being and life satisfaction (DiLollo et al., 2003; L. Plexico et al., 2009; L. W. Plexico et al., 2009).

Characteristics of Stuttering

Common external stuttering behaviors can include repetitions, prolongations, and blocks (Ambrose & Yairi, 1999). However, according to a study performed by Tichenor and Yaruss (2019), 430 adults who stutter summarized the experience of stuttering as a myriad of experiences "beyond the observable speech disfluency" (Tichenor & Yaruss, 2019, p. 4536). Therefore, the event of stuttering extends beyond the inability to produce words fluently and manifests in internal, complex psychological constructs (Panzarino et al., 2024; Smith & Weber, 2017). Sheehan (1970) describes this internal phenomenon with his iceberg analogy (Sheehan, 1970). In this analogy, the observable aspects of stuttering are thought of only as the tip of the iceberg. People who do not stutter are only able to perceive the outer traits of stuttering instead of the psychological or internal conflicts of stuttering. Sheehan's analogy conceptualizes

stuttering as composed of more than what can be observed and encompasses the inner experience of the speaker (Panzarino et al., 2024; Sheehan, 1970). Recent research into the emotional experiences of an IWS categorizes internal reactions to stuttering as: affective, behavioral, and cognitive (ABC) components (Panzarino et al., 2024; Yaruss, 1998). Also referred to as the "ABC's of Stuttering Attitudes," each of these factors build on each other and contribute to the perception, experiences, and management of stuttering events (Weidner & St. Louis, 2023, p. 82).

Affective (A) reactions can be described as the preliminary fear of moments of disfluency and includes feelings associated with the anticipation of stuttering such as: embarrassment, guilt, anxiety, isolation, hopelessness, exhaustion, fear, etc. (Panzarino et al., 2024; Tichenor & Yaruss, 2019). Affective reactions are emotional and "ingrained" responses to the experience of feeling stuck when communicating or to the interruption of communicating as desired (Tichenor & Yaruss, 2019, p. 4361). Following Sheehan's Iceberg Analogy, affective components are internal, below the surface, and processed by an IWS. For an IWS, behaviors (B) or reactions to stuttering can either be covert and hidden or overt and visible to listeners (Bloodstein et al., 1995; Tichenor & Yaruss, 2019; Van Riper, 1971). Secondary behaviors also may occur to escape or avoid moments of disfluency (Panzarino et al., 2024; Tichenor & Yaruss, 2019; Van Riper, 1971). In Sheehan's iceberg analogy, overt behaviors can be considered as the tip of the iceberg and are components of stuttering that are observed by others. Common overt behaviors associated with the event of stuttering can include avoiding others' eye gaze, physical tension or struggle in muscles, interruptions in breathing, repetitions, blocks (a sudden stop in speech), prolongations (carrying out a sound longer than typically produced), spasms, vocal tremors, etc. and can be counterproductive to a communication situation for an IWS (Bloodstein et al., 1995;

Panzarino et al., 2024; Sheehan, 1970; Tichenor & Yaruss, 2019). Covert or ambiguous reactions to stuttering may include attempts to hide stuttering, escape stuttering situations, or speak around commonly stuttered words (circumlocute) to avoid stuttering (Tichenor & Yaruss, 2019). Both covert and overt behaviors can enhance fear of interacting with others and lead to conversational and social disengagement for an IWS (Panzarino et al., 2024; Tichenor & Yaruss, 2019).

Lastly, stuttering may cause an IWS to doubt their sense of control, alter their self-esteem, and shape their identity (Tichenor & Yaruss, 2019). These behaviors are known as cognitive reactions to stuttering (C). An IWS perception of self-esteem and identity can greatly be affected by the ability to anticipate stuttering events and gain a sense of control over moments of disfluency (Tichenor & Yaruss, 2019). The fear associated with the inability to accurately predict and meaningfully interpret stuttering outcomes is known as cognitive anxiety (Viney & Westbrook, 1976). Another word to describe the preliminary cognitive fear is anticipation, or the feeling that stuttering is about to occur (Tichenor & Yaruss, 2019). The relationship between cognitive anxiety and stuttering can be understood with Fransella's (1972) Personal Construct Theory of Stuttering. According to this theory, an IWS may create systems of "personal constructs" to accurately predict and meaningfully interpret stuttering (Fransella, 1972). The basis of the Personal Construct Theory relies on an IWS perception of the magnitude of a stuttering event. Therefore, those who predict and maintain control of stuttering situations will associate those moments with greater significance compared to moments of disfluency. An IWS can increase meaningfulness for moments of fluency by developing strategies to regain control of stuttering situations. An IWS must first, then, consider stuttering as manageable versus rigid and inevitable to have a sense of control. If stuttering is perceived as adaptable, an IWS can then begin to create management strategies to build self-esteem. Secondly, an IWS must view

stuttering externally rather than as a part of their identity. Tichenor and Yaruss (2019) analyzed the experiences of 430 adults who stutter and found that participants often defined stuttering in relation to its effect on their identity, views of self, and self-esteem (Tichenor & Yaruss, 2019). Some participants suggested that stuttering be perceived as something that happens to them but not a part of their identity (Tichenor & Yaruss, 2019). When perceived externally, stuttering is separate from an IWS sense of self and factors that contribute to their personhood.

Stuttering and Self-Stigma

While cognitive anxiety is in response to an IWS inability to predict outcomes (Viney & Westbrook, 1976), social anxiety is the fear or embarrassment of interacting with others on a daily basis (Blumgart et al., 2010). Everyday tasks such as talking on the phone or ordering from a restaurant can be emotionally taxing, cognitively taxing, cause anxiety, and increase self-stigma for an IWS. Previous research into the social fears related to stuttering reveal that people who stutter are afraid they will be socially perceived as defective, mentally-ill, strange, incompetent, cognitively impaired (Boyle & Fearson, 2018; Bricker-Katz et al., 2010; Corcoran & Stewart, 1998; Klompas & Ross, 2004; L. W. Plexico et al., 2009; Whaley & Parker, 2000). Self-stigma is the process of internalizing stereotypes from others and is the damage to self-esteem due to negative public perceptions and occurs below the surface (Michael P. Boyle, 2013; Corrigan et al., 2011, p. 339). For IWS, self-stigma is a demoralizing cognitive reaction to stuttering. According to a study performed by Boyle (2013) on the relationship between self-stigma, stress, and physical health, it was found that an increased awareness and internalization of social stigma related to stuttering caused an increase in stress and physical health risks such as headaches, sleep deprivation, and gastrointestinal complications (Boyle & Fearson, 2018; Michael P. Boyle, 2013).

In addition to physical health risks, Boyle (2013) found that self-stigma can decrease self-esteem and damage self-worth therefore limiting resilience, hope, and belief in achieving goals (Michael P. Boyle, 2013; Corrigan et al., 2011). The quality of negative perceptions related to self-stigma, in addition to overall quality of life in an IWS, was first analyzed by Corrigan and colleagues (2011) to form the four levels of progressive self-stigma: stereotype awareness, stereotype agreement, self-occurrence/ application, and harm (Corrigan et al., 2011). Boyle (2013) specifically applied this model to stuttering with his Self-Stigma of Stuttering Scale (4S; Michael P. Boyle, 2013; Corrigan et al., 2011). In order to better understand social fears associated with stuttering, the 4S evaluates an IWS detection of public stereotypes (stigma awareness), the level of agreement with public stereotypes for themselves and others who stutter (stereotypes agreement), internalization of negative stereotypes from the public (stigma application), and the subsequent harm to an IWS well-being and overall quality of life (Michael P. Boyle, 2013; Corrigan et al., 2011). Because these levels are progressive, an IWS awareness of public stereotypes and the extent to which they agree with them are only precursors to the demoralizing process of internalization. Internalization refers to mental representations and beliefs that impact an IWS self-esteem, self-efficacy and overall identity. Self-stigma has the potential to influence an IWS to give way to feelings of hopelessness, or what Corrigan and colleagues (2011) term, the 'why try' effect in which there is diminished hope in an IWS ability to be successful and thrive in their daily contexts (Corrigan et al., 2011). Therefore, self-stigma may harm an IWS confidence and belief in their ability to achieve their goals.

Stuttering Severity

Self-perceived stigma may also be attributed to the severity of stuttering or the degree to which internalized thoughts disable hopefulness in an IWS and prohibit flourishing. Stuttering

severity is often evaluated by the widely used Stuttering Severity Instrument- 4th edition (SSI-4; Riley, 2009). This assessment examines 4 factors that can greatly affect an IWS communication environment including: frequency of stuttering and stuttering behaviors, duration of stuttering, conspicuousness of stuttering, distractibility, and naturalness of stuttering from the perspective of an observer (Riley, 2009; Tichenor & Yaruss, 2019). Overall, the SSI-4 examines many of the overt aspects of stuttering to gain an understanding of stuttering severity. As previously discussed through the ABC model, IWS experience under-the-surface or covert attitudes with stuttering that can largely affect perceived communication success and stuttering severity (Riley, 2009; Tichenor & Yaruss, 2019). The SSI-4, therefore, provides information only about the observer's experience and does not adequately capture the inner experience of an IWS. Self-reported severity rating tools, in contrast, have been determined to be valuable and reliable resources for providing a holistic picture of an IWS global experience of stuttering- including covert thoughts and behaviors (Sue O'Brian et al., 2004; O'Brian et al., 2011). Boyle (2012)'s Perceived Stuttering Severity Scale provides a brief yet complete examination of the impact of stuttering based on various communication environments and partners (Boyle, 2012). The Perceived Stuttering Severity Scale has been used in previous studies as a valid and reliable measurement for determining experience of stuttering severity in everyday situations (Iverach et al., 2009; Sue O'Brian et al., 2004; O'Brian et al., 2011). In a study performed by Iverach and colleagues (2009), it was determined that the self-rating scale used for analysis was reliable and able to measure adult speech over time in various situations (Iverach et al., 2009). Additionally, the reliability of self-rating severity instruments have been studied for years and consistently are found to be efficient and reliable means to evaluate the experience of the speaker (Aron, 1967;

Horton et al., 2023; Karimi et al., 2014; O'Brian et al., 2020; Sue O'Brian et al., 2004; S. O'Brian et al., 2004; Sherman, 1955).

Coping

There are many methods by which people cope with life stressors. Lazarus and Folkman (1984) describe coping as an individualized management process of life stressors. According to Plexico and colleagues (2009), "stuttering as a chronic stressor has the potential to either weaken an individual's resources in a way that can undermine coping efforts or strengthen an individual's resources in a way that facilitates successful management and adaptive coping" (Plexico et al., 2019, p. 53). Therefore, it is reasonable to assume that there are beneficial, or "adaptive coping" forms and counterproductive methods of coping. Swartz and colleagues (2011) define beneficial coping strategies as functional and counterproductive coping strategies as dysfunctional (Swartz et al., 2011). Functional coping strategies are used when the IWS approaches problems in an assertive way and uses thoughts and behaviors to solve problems or lessen stressors (L. Plexico et al., 2009; Swartz et al., 2011). Dysfunctional coping strategies, in comparison, are utilized when an IWS responds to stressors with self-distraction, efforts to deny stressors, escapism, wishful thinking, and self-blame (Swartz et al., 2011). An IWS must develop functional coping strategies for effective management of skills across their lifetime and for their overall satisfaction of life.

Coping is often necessary for the management of stress associated with stuttering and for the empowerment of an IWS to feel in control of the stuttering situation. An IWS stress management may include the management of counterproductive behaviors such as escaping communication situations or avoiding speaking entirely. Historically, coping strategies are typically divided into two primary types: problem-focused coping and emotion-focused coping

(Carver & Sheier, 1994; Folkman & Lazarus, 1980; L. W. Plexico et al., 2009; Swartz et al., 2011). Problem-focused coping involves actively managing the stressor (Swartz et al., 2011). When using problem-focused coping strategies, an IWS plays an active role in lessening the stress associated with a communication situation. Carver and Scheier (1994) describe agentic or active coping strategies as problem-focused coping with the addition of planning or brainstorming solutions to handle external stressors, suppressing competing activities or actively putting off distractions to focus on stressors, restraining or choosing to not act prematurely, and seeking out advice or information for instrumental social support. With active coping strategies, an IWS can attempt to lessen the event of stuttering through taking initiative.

Emotion-focused coping strategies attempt to lessen emotional distress associated with or brought on by a stuttering event (Carver & Sheier, 1994; Folkman & Lazarus, 1980). Carver and Scheier (1994) describe emotion-based coping strategies as the process of seeking emotional support such as sympathy and understanding, recreating a positive interpretation of the stressful event, accepting the stressful situation, denying, or choosing to believe the stressor doesn't exist, and turning to religion in hopes that a higher power will deal with the stressor. While problem-focused coping strategies tend to be confidence-building and have the potential to boost self-esteem and resilience to empower the IWS, emotional coping strategies could have counterproductive consequences such as leading the IWS to fixate on stuttering, mentally disengage from stuttering, reduce effort to deal with the stressor or feel helpless from believing that nothing will change. Both problem-focused and emotion-focused coping strategies have the potential to shape how an IWS views moments of disfluency.

According to a study performed on the relationship between life satisfaction and coping, it was found that people who stutter who have resilience have greater self-acceptance and

therefore a greater satisfaction with life (Plexico et al., 2019). While some PWS experience stress related to the experience of stuttering, an IWS may develop these protective qualities that allow them to avoid negative effects of stress (Plexico et al., 2019, p. 54). Protective factors allow for the positive management of stuttering behaviors while counterproductive stuttering strategies can lead to the development of negative emotions such as the fear of speaking. Lee and colleagues (2013) found that protective factors such as self-efficacy, positive affect, and self-esteem are often associated with higher life satisfaction and greater resilience (Lee et al., 2013; Plexico et al., 2019). If an IWS develops these protective qualities, they are more likely to be resilient and, therefore, develop beneficial coping strategies for the management of stuttering.

Humor can be used as one of these protective coping strategies against negative feelings and has been studied extensively in various contexts (Freud, 1928; Lefcourt, 2001; Lefcourt & Martin, 1986). Martin (2007) explains that from childhood, humor can be used as an emotional coping strategy for uncertain moments to gain a sense of control over an emotionally tense or anxious situation (Martin, 2007). Therefore, children often use jokes and laughter to make social situations less threatening. Additionally, previous theories have reasoned that humor is used to deal with moments of emotional vulnerability including feelings of anger, fear, shock, disgust, loneliness, and narcissism (Martin, 2007, p. 13; Sutton-Smith, 2003). While humor can be used as a coping strategy, humor has many other roles in everyday life and can be a valuable tool for managing life stressors.

Humor

Origins of Humor

The sound of laughter is easily detected and interpreted, regardless of context or culture (Martin, 2007; Provine & Yong, 1991). However, humor is multidimensional and is shaped by cultural rules and social contexts for its understanding and use among people (Martin, 2007). The

origins of humor and its use has largely been studied across psychology research and has developed over time. The earliest recorded origins of humor have been attributed to Aristotle and Plato's Greek Theory of Four Humors or bodily fluids including: "blood, phlegm, black bile, and yellow bile" (Martin, 2007, p. 21; Ruch, 1998, p. 7). According to the review of Greek uses of humor by Bremmer (1997), Democritus was known as "the laughing philosopher" because he was known to laugh at the foolishness of his peers (Bremmer, 1997, p. 17; Polimeni & Reiss, 2006). Historically, definitions of humor were based on physical constructs and were not always conceptualized as a method for connecting with others (Martin, 2007). Moving towards the 18th century, humor was used at the expense of others to publicly ridicule social outcasts of the time for self-gain (e.g. those who were considered deformed, mentally-unstable, or peculiar; Martin, 2007; Ruch, 2008). Over time, humor evolved to be more of an attitude causing a shift away from Aristotle and Plato's physical ideology of humor to a more internal, psychological, and cognitive construct (Martin, 2007; Wickberg, 1998).

Components of Humor

Martin (2007) also describes innate origins of humor based on Charles Darwin's (1872) theory of evolution and reasons that humor in humans is a result of natural selection (Darwin, 1872; Gervais & Wilson, 2005; Martin, 2007). According to a study on the evolution of humor and laughter in primate species, Gervais and Wilson (2005) found that rudimentary humor can be found in social play between apes and observed in their facial expressions (Gervais & Wilson, 2005; Preuschoft & van Hooff, 1997). Martin (2007) describes that through the advancement of cognition and linguistics, humor has adapted to the advanced communication and connective needs of society today to be mental play (Caron, 2002; Martin, 2007). Compared to humor used in primal social play, mental play can be understood as play with words and ideas (Martin,

2007). In his extensive review of humor in the psychology literature, Martin (2007) states that humor is typically divided into four common components: (1) a social context, (2) a cognitive-perceptual process, (3) an emotional response, and (4) the vocal-behavioral expression of laughter (Martin, 2007, p. 5).

Humor is used frequently in social contexts without rules of use or dependency upon familiarity with communication partners. For example, humor can be used with perfect strangers and with friends (Martin, 2007). While humor can be used playfully in socially relaxed situations, as seen in comfortable environments between friends, it also can be used in more serious contexts such as using humor to appeal to a crowd during a business presentation (Martin, 2007). In addition to its use as a socially connective tool, humor is an individualized cognitive-perceptive process in which a person perceives an event, action, idea, conversation, or concept as funny. There is extensive research about how people perceive and consider humor in certain situations and isn't consistent among individuals. For example, you may perceive a joke as humorous while I may not. However, Martin (2007) found that an individual often finds situations or stimuli humorous if they are "incongruous" or unexpected and out-of-the-ordinary (Gervais & Wilson, 2005; Martin, 2007, p. 7). This incongruency is conceptualized by Apter (1982) as "synergy" or the act of having two contradicting images in one's mind (Apter, 1982; Martin, 2007). While humor can be intentionally used for social or cognitive objectives, it also can be an emotional response (Martin, 2007). When an individual perceives a stimulus as humorous, a biochemical reaction in the brain is activated that increases pleasure and elicits emotions such as joy and happiness (Martin, 2007; Mobbs et al., 2003; Szabo, 2003). Researchers have struggled to unify a definition for the emotional response to humor because it has previously been attributed to be a result of cognitive-perceptual processes (Bachorowski &

Owren, 2003; Shiota et al., 2004; Weisfeld, 1993). In his book, *The Psychology of Humor: An Integrated Approach,* Martin (2007) refers to mirth as the "emotion elicited by the perception of humor" (Martin, 2007, p. 8). While humor is suspected to be a contributing component to happiness and well-being, research in humor and its effect on human health is ongoing. Lastly, Martin (2007) discusses how humor is perceived as a vocal-behavioral response. The sound of laughter is described as an expression and reaction to humorous stimuli and is often a contagious trigger for laughter in others (Martin, 2007; Owren & Bachorowski, 2003; Russell et al., 2003). In this manner, humorous stimuli creates an audible vocal response that has the potential to arouse positive emotions in other communication partners (Owren & Bachorowski, 2003). Therefore, humor can be used as a beneficial tool to elicit positive behavioral and emotional responses (respectively laughter and joy) in others. However, it will soon be discussed how humor is not always intended to mutually benefit communication partners.

Use of Humor

Humor's role in the life of an individual is wide-spanning and has many facets of interpretation and use. In the past few centuries, psychologists have begun to show interest in humor and the differences in humor across populations (Martin, 2007; Ruch, 1998; Wickberg, 1998). Martin (2007) divides people's most common uses of humor into four primary categories: either as self-enhancing, self-deprecating, affiliative, or aggressive (Martin, 2007). Self-enhancing humor is humor used to increase one's self-esteem. Contrastingly, self-deprecating humor is humor used to diminish one's self-esteem in social contexts. Affiliative humor is often used in social contexts to form a connection between the speaker and others; it is the humor used with the intention to form connections and make others laugh. Lastly, aggressive humor is used with the intent to divide oneself from others and may cause another person's self-esteem to

decline. With these four major types of humor, one can create connections with others, separate oneself from the experiences of others, boost one's own self-image, or diminish self-image (Martin, 2007). The social contexts of humor can largely affect one's decisions and intentions of communication.

Humor as a Virtue

While humor can be understood as an external facet of one's choices, it can also be viewed as an embedded virtue or characteristic. For example, "having a sense of humor" views humor as a part of someone's personality and is a group of individualized traits (Martin, 2007, p. 193; Ruch, 1998). Martin (2007) breaks down sense of humor into six categories: (1) a cognitive ability, (2) an aesthetic response, (3) a habitual behavior pattern, (4) an emotion-related temperament trait, (5) an attitude, or (6) a coping strategy (Martin, 2007). People with a combination of any of these six traits are perceived to be good-humored, or to have a good sense of humor. For example, a good-humored person may: have the ability to manipulate humor in various contexts to meet their needs (cognitive ability), enjoy humor in various communication contexts (aesthetic response), laugh often at others' use of humor (habitual pattern), frequently be jolly and cheerful (temperament trait), respond positively to humor and those who use humor (attitude), and/or practice humor as a resilient protective factor when faced with life stressors (coping response). Therefore, those who understand humor, use it to their advantage, and utilize humor as a connective tool naturally have a good sense of humor.

Impact of Humor on Well-Being

In addition to its division into types, humor has been discussed in positive psychology. Depending on its context, humor has the potential to be uplifting or demeaning based on its use which can affect an individual's overall psychological well-being. One of the ways humor is

used in everyday contexts is to make light of a situation or deflect negative thoughts or feelings away from oneself and others. In addition to joyful or mirthful laughter, humor can be a healing mechanism for people looking to find relief from a moment of embarrassment or sorrow. Humor can be utilized as a coping mechanism to manage unexpected stressors (Martin, 2007). One way that Martin (2007) describes humor as a coping mechanism is the ability for humor to broaden one's perspective of a stressful event and consider the situation manageable (Martin, 2007). For individuals who stutter, humor has the potential to be a powerful tool for coping with moments of disfluency by managing the event of stuttering and connecting with others. As indicated previously, humor is a tool to build up or tear down self-confidence and/or others' confidence. In the life of an IWS, humor can be used as a management strategy to build up confidence and increase self-esteem. In everyday social contexts, an IWS can also use the four humor types to increase positive emotional responses in others.

Well-Being

In current psychology literature, well-being is thought to be the absence of "ill-being" or physical, mental, or social limitations, diseases, or disabilities that prohibit a person from prospering and having a fulfilling life (Ryff & Singer, 1998, p. 2; Seligman, 2010). Recently, psychologists have collectively embraced a more holistic view of well-being that focuses on psychological benefits including hope, resilience, purpose, and connection with others. The shift in optimistic thinking as it relates to well-being in the literature is known as positive psychology (Gillham & Seligman, 1999; Ryff & Singer, 1998; Seligman, 2010). Seligman (2010) defines well-being by focusing on five components that make life fulfilling and include: "positive emotion, engagement, positive relationships, meaning, and accomplishment" (PERMASeligman, 2010, p. 234). With these five components, the flourishing person chooses optimism and views

unfortunate circumstances as temporary (positive emotion), often interacts with those they love (engagement), maintains close and enriching relationships (positive relationships), contributes and belongs to something greater than themselves (meaning), and demonstrates mastery in their achievements (accomplishment) to have great life satisfaction. `

Traditionally, psychologists divide well-being into two different groups: either Eudaimonic or Hedonic. Eudaimonic well-being, also known as psychological well-being, is related to the ability to recognize one's abilities and direction in life while Hedonic well-being, or subjective well-being, is related to happiness (Diener et al., 2009; Murphy, 2023; Ryff & Keyes, 1995; Waterman, 1993). Earliest views of Eudaimonic and Hedonic theory began with Aristotle's *Nicomachean Ethics* where Aristotle distinguishes eudemonia (excellency within oneself and self-realization) from the subjective experience of obtaining what one wants and considers of utmost importance to themselves (hedonic happiness; Aristotle, 1985; Waterman, 1993). According to Ryff (1989), psychological well-being refers to an individual's recognition of their fullest potential and to "operate at full capacity in their lives" (Murphy, 2023, p. 1; Ryff, 1989). Therefore, someone with good psychological well-being can monitor and improve their abilities to experience pleasure in life.

In addition to the Eudaimonistic view of well-being, there are also divisions of social and subjective well-being. Social well-being extends psychological well-being to the interpersonal realm by examining facets of the social sphere including coherence, acceptance, integration, contribution, and actualization (Keyes, 1998; Murphy, 2023). In the life of an IWS, these factors allow for a movement of healthy perception of self and empowerment of self to contribute meaningfully to social spheres despite the presence of stuttering. Secondly, subjective well-being is important for one's overall perception of the stuttering experience. Subjective well-being can

be described as “the combination of having high satisfaction with life while simultaneously having more pleasant emotional experiences than negative moods” (Diener, 1984; Murphy, 2023, p. 1). In contrast to interpersonal aspects of social well-being, subjective well-being focuses on an individual’s attitude towards stuttering and how those attitudes can contribute to an IWS overall quality of life. Therefore, the presence of both positive subjective and social well-being is vital for a stutter’s positive quality of life.

Flourishing

According to definitions of flourishing in positive psychology research, there are basic psychological and relational needs that must be met for a person to prosper in life, such as the need for competence, relatedness, autonomy, and self-acceptance (Diener et al., 2009; Ryan & Deci, 2000; Ryff, 1989; Ryff & Singer, 1998). As described by Ryff and Singer (1989), a person who has high competence in life has a sense of mastery in managing environmental factors and makes the most of opportunities in life. Those who have high autonomy are internally motivated, resilient in overcoming personal challenges, and can self-regulate emotions and behaviors. People with high relatedness are successful in maintaining close relationships with others, caring for others, and maintaining a balance in the give-and-take required for relationships. An individual with high self-acceptance is able to have an optimistic view of themselves and is accepting and forgiving of their own good and bad qualities (Ryff, 1989). Diener et al., (2009) includes these basic psychological needs in his Flourishing Scale to measure psychological and relational wellness in one’s life.

In the development of the Flourishing Scale (FS), Diener (2009) focuses on flourishing in the life of an individual as it relates to one’s relationships, self-esteem, purpose, and optimism. Like Seligman’s definition of flourishing, the branches of flourishing that Diener (2009) includes

in his scale are based on the flourisher's social-psychological functioning and includes supporting and rewarding relationships, contributing to the happiness of others, being respected by others, purposefulness and meaningfulness in life, engagement and interests in activities, self-respect, optimism, and involvement in activities of interest. These components contribute not only to one's flourishing but also a person's internal motivation to pursue flourishing in life.

Jeffrey and Mehari (2023) offer an additional perspective by examining the components of flourishing from the perspective of a flourisher. According to Jeffrey and Mehari (2023), flourishing is defined as the "enjoyment of the best goods achievable in action", while the 'best goods' can be understood as something the flourisher desires that is also of the greatest quality (Jeffrey & Mehari, 2023, p. 15). Therefore, a person must have a goal to achieve something as well as the ability to obtain it to flourish. The difference between this type of flourishing and other types is its agency component or flourishing that is not accidental or by chance. The flourisher, then, enjoys rewards from their agency as well as their independent and active role in bringing about prosperity (autonomy and self-determination) rather than passively enjoying what is done for them. Agency in bringing about one's flourishing contributes to meaningfulness in life, or one's ability to contribute to something greater than themselves and creates a sense of purpose for the flourisher (Seligman, 2010).

Hope

There are many different theories that define hope (Erikson, 1985; Frank, 1973; Martin, 2011; Snyder et al., 1991; Tillich & Gomes, 2000). In previous literature in ethics, psychology, and psychiatry, hope has been unified to be defined as a "psychological construct" and was thought to improve or impede one's wellness depending on its state in a person's life (Frank, 1968; Snyder et al., 1991; Talmadge, 2002; Taylor & Brown, 1988). With the rise of hope theory

related to well-being and wellness, qualities of hope were examined to determine which characteristics were necessary for well-being and a life of wellness (Bradburn, 1969; Cantril, 1964; Erickson et al., 1975; Frank, 1968; French, 1952; Gottschalk, 1974; Melges & Bowlby, 1969; Menninger, 1959; Schachtel, 1959; Snyder et al., 1991; Stotland, 1969). Hope can be positive in the sense that it can spur people to action in achieving their goals (Scheier & Carver, 1985) and negative in the sense that false hope can lead to the opposite effect and harm one's views of accomplishment in life (Snyder et al., 2002).Theories have shifted from defining hope as primarily a needs-based characteristic to a virtue focusing on one's goal-setting ability (Cobb & Green, 2017; Foot, 2002; Jeffrey & Mehari, 2023; Kadlac, 2015; Snow, 2018). Viewing hope as a virtue means that it is innate, individualized, and requires a positively oriented and "future oriented" belief in attaining or achieving goals (Jeffrey & Mehari, 2023, p. 1; Johnson et al., 2014; Kerpelman & Mosher, 2004).

The most widely used theories of hope are based on the work of Charles Snyder. Snyder (1991) defines hope in terms of a person's ability to set goals for oneself and their ability to carry it out (Snyder, 2000; Snyder, 2002; Snyder et al., 1991). Snyder's Hope Theory also states that high hope is related to flourishing and positive emotions while low hope is related to lower flourishing and negative emotions (Snyder, 2000; Snyder et al., 1991). Therefore, a person with high hope can brainstorm different methods and means to meet the goals they set for themselves. An older theory of hope was developed by Erik Erikson (Erikson, 1959). Erikson's Theory states that hope results from the first stage of development when children are experiencing trust from caregiver relationships (Erikson, 1959). Based on trust, hope can be cultivated in an individual through establishing feelings of safety and connection with caregivers from infancy. Therefore, it can be reasoned that an individual who has secure trusting relationships will most likely have

high hope in adulthood (Erikson, 1959). For this paper, we will be using Snyder's definition of hope as it relates to flourishing.

Snyder categorizes hope into what he calls "pathways" and "agencies" (Pleeging et al., 2019; Snyder, 2000; Snyder, 2002; Snyder et al., 1991, p. 570). In Snyder's Hope Theory, an individual's ability to find avenues to reach a goal (pathways) and their belief in their ability to do so (agency) can each impact an individual's wellness. This is not hope in the intervention of an outside divinity or the product of wishful thinking but requires intentional agency to come about. The best definition that psychologists have given for this type of agency is known as self-efficacy (Bandura, 1994; Jeffrey & Mehari, 2023; Pleeging et al., 2019). In definition, self-efficacy is someone's belief in their ability to carry out their goals (Bandura, 1994). Therefore, someone with high self-efficacy also has high hope that their goal is achievable. Additionally, self-confidence and hope are correlated as hope is more likely to appear when confidence in attaining goals is high (Pleeging et al., 2019). Therefore, when the hoper believes in their ability to achieve their goals, in addition to the "absence of its impossibility to obtain", they are more likely flourish (Aquinas, 1964; McGeer, 2004, p. 2; Ryff & Singer, 1998). Eudaimonist Virtue Theory views hope as a psychological disposition that promotes flourishing of those who have hope as a virtue (Aristotle, 1985). According to this theory, those who have hope lead a life of greater flourishing. It is individualized. Having and acting from the virtues you have leads to flourishing (Aristotle, 1985; Jeffrey & Mehari, 2023; Ryff & Singer, 1998).

Acceptance

For an IWS, acceptance is a vital part of managing the affective, behavioral, and cognitive constructs of stuttering (Sheehan, 2018; Sheehan, 1970). Stuttering largely affects personal, social, occupational, and recreational experiences (Gabel et al., 2004; Williams, 2006;

Yaruss & Quesal, 2004; Yaruss & Quesal, 2006). To manage stuttering effectively, a person who stutters must first accept that stuttering is not a debilitating characteristic of themselves, nor does it define them. Dembo et al., (1975) defines acceptance as "a change in the value system" and includes the ability to view quality losses as not negatively impacting an individual's existing values or the individual (De Nardo et al., 2011; Dembo et al., 1975, p. 25; Keany & Glueckauf, 1993). Therefore, the process of acceptance requires the separation of one's stuttering from their view of self and the avoidance of internalizing social stigmas associated with stuttering (M. P. Boyle, 2013; Corrigan & Watson, 2002; De Nardo et al., 2011). According to Dembo et al., (1975)'s acceptance model, there are four major changes to an individual's "value system" that leads to acceptance including: enlarging of the scope of values, subordinating physique relative to other values, contenting disability effects, and transforming comparative-status values into asset values (De Nardo et al., 2011, p. 28; Dembo et al., 1975).

Over the course of a value system change, an IWS must conceptualize the four steps needed to overcome stressors associated with stuttering and to maintain a sense of control of the stuttering event. During the enlargement of scope of values phase, an IWS can recognize the importance and enjoyment of current values compared to those lost. Plexico et al., (2009) discusses a similar idea through the improvement of one's self-concept by placing stuttering into a broader perspective to reduce the problem (L. Plexico et al., 2009). Once an IWS can separate the negative thoughts and emotions related to stuttering from their self-concept, then they can begin to focus on their current values. The next level of acceptance focuses on breaking down surface-level feelings of loss (based on comparison and social perceptions) and focusing on non-physical attributes that a person begins to consider as more important compared to the problem itself, such as kindness, patience, and intelligence (De Nardo et al., 2011). For an IWS, a person

can consider internal attributes as more meaningful than behavioral ones. The third step is the ability to "contain" effects (De Nardo et al., 2011; Keany & Glueckauf, 1993; Wright, 1983). De Nardo et al., (2011) explains containing effects is the ability to prevent the spreading of disablism or avoid internalization of stuttering in the mind of an IWS (De Nardo et al., 2011; Dembo et al., 1975). Therefore, to contain effects of stuttering, an IWS must not catastrophize the construct of stuttering for it to be manageable. The last level of acceptance is the transformation of "comparative-status values" to "asset values" (De Nardo et al., 2011; Dembo et al., 1975, p. 22). Comparative-status values are a person's attributes compared to a standard while asset values view personal attributes as assets (De Nardo et al., 2011). In this stage, an IWS can increase their self-esteem by highlighting their positive values and counting them as assets apart from the comparison to others' assets. This process of change in values can alter a person's view of self-worth and can diminish negative thoughts and feelings impeding the acceptance of stuttering. In summary, the four value changes proposed by Dembo et al., (1975) and discussed by De Nardo et al., (2011) can shape a person's view of stuttering and self, by increasing values in positive personal attributes.

The relationship between Hope, Humor, Flourishing, and Acceptance

` Across psychology literature, there are limited studies reviewing the connection between hope, humor, flourishing, and acceptance and their relationship to stuttering. There have been several studies examining one or two of these variables in relation to stuttering, but few have discussed the effect of hope and humor on flourishing and acceptance in the life of an IWS. Because stuttering is a condition that may persist in the life of an IWS, preventative strategies must be in place for effective management of stuttering and its maintenance across time. With the unsystematic overlap of affective, behavioral, and cognitive constructs associated with

moments of disfluency, stuttering can quickly diminish self-esteem and contribute to internalization of negative thoughts and emotions for an IWS. Contrastingly, establishing empowering, positive, and functional coping strategies has the potential to greatly decrease negative thoughts and emotions associated with moments of disfluency, such as stigma and mental constructs of disablism, and build self-efficacy. Positive beliefs about the future and self-efficacy are components of the virtue of hope and are critical for the pursuit of goods constitutive of flourishing. As discussed previously, hope plays a vital role in the life of an individual to identify and capitalize on existing abilities for the pursuit of well-being and flourishing (Murphy, 2023). People who are more hopeful are more creative and show more perseverance in pursuing their goals which can lead to higher levels of happiness through greater success in experiences (Bailey et al., 2007; Snyder, 2000). In the life of an IWS, hope can play a mediating role in the management of stuttering for goals to be attainable through agency (Seligman, 2010; Snyder et al., 1991).

In the pursuit of flourishing, a person with high resilience and high hope are most likely to reach their goals (Jeffrey & Mehari, 2023; Plexico et al., 2019) Therefore, increasing hope in an individual's life will most likely lead to a life of greater well-being. In a previous study, it was found that sense of humor was a primary characteristic in individuals with high hope and humor can increase hopefulness (Vilaythong et al., 2003). Certain types of humor, such as affiliative and self-enhancing types, can strengthen an IWS ability to connect with others and boost their self-esteem while aggressive and self-deprecating humor strategies may achieve the opposite affect (Martin, 2007).

In addition to hope, resilience is needed in the life of a stutterer to begin the process of problem-solving and taking steps toward acceptance and life change. The relationship between

humor and these concepts is briefly explained by Martin (2007). According to Martin (2007), humor and coping are tightly linked as resilience and humor both require a change in perspective to achieve one's goals. Both humor and coping with stressors require a re-framework of a person's internal dialogue and self-monitoring system to be able to accept stuttering and overcome barriers to communication successfully with others (Dembo et al., 1975; Fransella, 1972; Martin, 2007).

Justification

Stuttering is a chronic life stressor involving affective, behavioral, and cognitive reactions that can largely affect an individual's social participation, self-esteem, and life satisfaction. Therefore, applying effective management strategies can lessen the impact of stuttering and empower an IWS to take control of stuttering in their lives. Hope can be a valuable tool in the life of an IWS and in the development of plans to manage moments of disfluency and effectively carry out plans. One of these management strategies is the use of humor. Positive uses of humor can lead to greater flourishing and well-being in the life of an individual. With the use of affiliative and self-enhancing humor, an IWS has the potential to build self-esteem and form connections with others. As a reaction to stuttering, an IWS may begin to internalize negative effects of self-stigma and consider stuttering as inevitable, debilitating, and part of their identity. Therefore, with increased hope and humor, an IWS can boost self-esteem and sense of control as well as decrease self-stigma for overall acceptance of stuttering and flourishing.

The purpose of this study is to examine the effect that hope, and certain humor types have on flourishing, acceptance, and self-stigma in the life of an IWS. Through our findings, we hope to identify characteristics present in the life of an IWS that contribute to positive well-being and flourishing. The questions we aim to answer in this paper include:

(1) How well do hope and humor predict flourishing, controlling for stuttering severity in an IWS?

    Hypothesis: High hope and greater use of affiliative and self-enhancing humor will predict high flourishing.

(2) How well do hope and humor predict acceptance controlling for stuttering severity in an IWS?

Hypothesis: High hope and greater use of affiliative and self-enhancing humor will predict high acceptance.

(3) How well do hope and humor predict self-stigma controlling for stuttering severity in an IWS?

Hypothesis: High hope and greater use of affiliative and self-enhancing humor will predict lower self-stigma.

Chapter II

Methods

Participants

100+ participants will complete the survey. To meet the inclusion criteria, participants must be 19 years or older and stutter. Individuals who do not qualify according to the criteria will proceed to the end of the survey and their responses will not be included in the data analysis.

Materials

A 100+ item survey will be administered through Qualtrics software, which is an electronic survey platform. The survey examines six main areas (1) Demographic and Background Information Questionnaire, (2) Self-Stigma of Stuttering Scale (4S), (3) Humor Styles Questionnaire (HSQ), (4) Adult Hope Scale (AHS), (5), Flourishing Scale, (6) Acceptance of Stuttering Scale.

Demographic and Background Questionnaire

A demographic and background questionnaire will be administered to gather information regarding participants' age, gender, ethnicity, race, education level, academic degrees, employment status, annual income, previous and current stuttering treatment, and experience with stuttering treatment.

Perceived Stuttering Severity Scale (PSSS)

The Perceived Stuttering Severity Scale is a self-report questionnaire containing 8 items that examine perceptions of stuttering severity in the life of an IWS based on familiar and unfamiliar speaking situations. The goal of the PSSS is to measure the impact of stuttering across different situations and contexts. Participants were asked to rate their typical and worst stuttering severity in speaking situations, where typical stuttering severity is defined as "the severity of

your speech for the majority of the day" (O'Brian et al., 2011, p. 88). This scale has been found in previous studies to be a reliable and valid measure of self-rating stuttering severity (Aron, 1967; Horton et al., 2023; Karimi et al., 2014; O'Brian et al., 2020; Sue O'Brian et al., 2004; S. O'Brian et al., 2004; Sherman, 1955).

Questions on the perceived stuttering severity scale are rated by an IWS on a 9-point Likert-type scale (1= No Stuttering and 9= Extremely Severe Stuttering). Higher scores on the PSSS (scores ranging from 5-9) indicate greater perceived stuttering severity for an IWS over time in everyday contexts. (Sue O'Brian et al., 2004; S. O'Brian et al., 2004). According to a study on the reliability of the 9-point stuttering severity scale, twelve Speech Language Pathologists (SLPs) with expertise in stuttering treatment (divided into six pairs) found a Spearman rank order correlation of .91 between the mean percentage of syllables stuttered (%SS) and mean ratings on the perceived stuttering severity scale (S. O'Brian et al., 2004). Adequate intrajudge agreement was determined with 92% of scores falling within 1 point of each other when rated by the same judge with the maximum difference for any two ratings falling within 2 points of each other on the severity scale. Adequate interjudge agreement was determined with 84% of pairs of scores falling within 1 scale point of each other when completed by different judges with only 2% of scores differing by more than 2 points. Therefore, the study concluded that both the percent syllables stuttered, or the 9-point stuttering severity scale were interchangeable and were reliable measures of stuttering severity (S. O'Brian et al., 2004).

Self-Stigma of Stuttering Scale (4S)

The Self-Stigma of Stuttering Scale (4S) contains 33-items evaluating three major components of self-stigma including: (a) stigma awareness, (b) stereotype agreement, and (c) self-occurrence. The goal of the 4S is to measure internalized self-stigma associated with

stuttering in adults. This scale can be administered quickly and can inform SLP's about the stigma-related problems in PWS (Michael P. Boyle, 2013). Questions on the 4S are rated by an IWS on a 5-point Likert-type agreement scale (1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree. Score values on each subscale are averaged providing a total self-stigma score with higher scores indicating high self-stigma and lower scores indicating low self-stigma. There are 14 items on the stigma awareness subscale, seven items on the stereotype-agreement subscale, and 12 items on the self-occurrence subscale. Positively worded items are reverse scored. Averaged scores above a three indicate high levels of self-stigma while scores below three indicate low levels of stigma with a score of exactly three representing the midpoint of neither agreeing nor disagreeing with stigma.

The internal consistency and reliability have been found to be adequate with coefficient alpha (α) values ranging from .70 and .89. To determine temporal stability, test-retest correlations (administered two weeks apart) were calculated and yielded results ranging from .55 to .82 for its subscales compared to other stigma questionnaire subscales ranging from .55 - .90. Construct validity was evaluated through analyzing hypothesized relationships between stigma self-concurrence, self-esteem, self-efficacy, and life satisfaction. After regression analyses were conducted between variables, correlations were found to support hypotheses indicating good construct validity.

Humor Styles Questionnaire (HSQ)

The Humor Styles Questionnaire (HSQ) consists of 32-items or four 8-item subscales assessing 4 types of individual uses of humor including: (a) humor to advance the self (Self-enhancing humor), (b) humor to connect with others (Affiliative Humor), (c) humor at the expense of self to connect with others (Self-defeating humor), and (d) humor used at the expense

of others to enhance the self (Aggressive Humor). The goal of the HSQ is to examine the uses of humor in individuals and their relation to psychological well-being (Martin et al., 2003). Questions on the HSQ are rated on a 7-point Likert scale (1= totally disagree, 2= moderately disagree, 3= slightly disagree, 4= neither agree nor disagree, 5= slightly agree, 6= moderately agree, and 7= totally agree).

All scores are compiled, and subscale scores are determined per humor type. Some items in each scale are reverse scored. Higher scores per humor type indicate higher frequency of its use and lower scores per humor type indicate lower frequency of use. The sum across all 8 items in each scale provide subscale totals with a minimum score of 8 and high score of 56. High scores in affiliative humor indicate a high tendency to share humor with others, tell jokes and funny stories, amuse others, make others laugh, and/or enjoy laughing along with others. High scores in self-enhancing humor indicate a high tendency to maintain humorous outlook on life even when not with others, use humor in coping with stress and cheer oneself up with humor. High scores in aggressive humor indicate tendency to use humor to put down, disparage, or manipulate others or use humor to ridicule others. Lastly, high scores in self-defeating humor indicate a tendency to amuse others at one's own expense or using humor to hide one's true feelings from oneself and others. The internal consistencies of the four scales were adequate as demonstrated by Cronbach's alpha (α) values ranging from .77 to .81. Low correlational findings accounted for the distinct uses of humor represented in each subscale and provides evidence for the construct validity of the four subscales.

Adult Hope Scale (AHS)

The Adult Hope Scale (AHS) is a 12-item questionnaire assessing an individual's goal-orienting abilities including (a) forming a plan to achieve one's goals (pathways) and (b)

carrying out the plan (agency). The objective of the AHS is to examine these abilities over time. Four questions on the AHS are related to pathways thinking, four are related to agency thinking, and four are filler questions. AHS items are rated on an 8-point Likert scale (1= definitely false, 2= mostly false, 3= somewhat false, 4= slightly false, 5= slightly true, 6= somewhat true, 7= mostly true, 8= definitely true) and require a person to choose the degree to which they agree or disagree with a statement. Scores are summed and "agency" or "pathways" subscale scored are derived (Snyder et al., 1991, p. 585). Subscale scores will be derived by summing the subscales with a minimum score of 4 and maximum score of 32 for each subscale. The total hope scale score can range from 8 to 64. Scores from 8-39 are interpreted as lower in hope, while scores 40-48 are interpreted as hopeful, scores from 48-56 are moderately hopeful, and 56 or higher are high hope. High scores on the AHS indicate higher agency and pathways thinking for an individual to meet their goals. This scale demonstrates acceptable internal consistency with Cronbach's alpha (α) ranging from .74 to .84 as well as adequate test-retest reliability (Snyder et al., 1991).

Flourishing Scale (FS)

The Flourishing Scale (FS) is a brief 8-item measurement that assesses an individual's psychological flourishing including perceived success in: relationships, self-esteem, purpose, and optimism (Diener et al., 2009). The aim of the FS is to measure social-psychological prosperity in respondents. FS items include three statements about social relationships, one measuring purpose and meaning in life, one for examining engagement, one examining self-respect, one regarding optimistic outlook, and one assessing feelings of competence. Responses to the FS range on a 7-point Likert scale (1= strongly disagree, 2= disagree, 3= slightly disagree, 4=

neither agree nor disagree, 5= slightly agree, 6= agree, and 7= strongly agree) and requests participants to assign a number for the degree to which they agree or disagree with a statement.

Numbers are added from all eight items and range from 8 (lowest possible score) to 56 (highest possible score) and yield a single psychological well-being score. A high score indicates psychological strengths and resources for flourishing in life while a low score represents low flourishing (Diener et al., 2009). The FS demonstrated high reliability and high convergence with similar scales (correlating with sums of others scales at .78 and .73). Internal reliability and temporal stability were both adequate with a Cronbach's alpha (α) of .87 and a temporal stability of .71. A more recent study using the FS as a measurement in mental wellness also found good internal consistency with a Cronbach's alpha (α) of .86 (Schotanus-Dijkstra et al., 2016) accounting for the scale's good reliability.

Acceptance of Disability Scale- Modified (ADM)

The Acceptance of Disability Scale-Modified (ADM) is an alternate version of Li & Moore's (1998) Acceptance of Disability Scale while the term "disability" is replaced by "stuttering" (ADS; De Nardo et al., 2011, p. 20; Li & Moore, 1998). The ADM presents 10-items related to an IWS perceptions and acceptance of stuttering and examines psychosocial factors in the life of a stutterer including: self-esteem, hostility, emotional support, and discrimination. The goal of the ADM is to determine an IWS level of acceptance through analyzing the impact of stuttering on well-being. Questions on the ADM are scored on a 5-point-Likert-type scale ranging from 1 (strongly agree) to 5 (strongly disagree) and require an IWS to choose the degree to which they agree or disagree with a statement.

Scores on the ADM ranging from 40 and above indicate higher levels of acceptance, 30-39 indicate some acceptance, and scores of 29 and below indicate lower levels of acceptance of

stuttering (De Nardo et al., 2011). In a study performed to assess the structure of a modified ADS, internal consistency between items was found to be acceptable with Cronbach's alpha (α) of .90 (Groomes & Linkowski, 2007). Additionally, the overall reliability and construct validity of the ADM scale was found to be successfully modified in other studies (Groomes & Linkowski, 2007; Richardson et al., 2001).

Analysis

Descriptive statistics will be provided for all demographic data. The portions of the survey evaluating flourishing, acceptance, and self-stigma will be scored and serve as the dependent variables. The portions evaluating hope and humor will be scored and serve as the independent variables. Hierarchical Linear Regression Analysis will be used to evaluate whether the independent variables (i.e., hope and humor) differs across the 3 scored dependent variables (flourishing, acceptance, and self-stigma) with the demographic factor of stuttering severity serving as a moderator.

Recruitment and Distribution

Using Qualtrics, a survey will be trialed and used to improve survey questions and reduce bias. Approval will be obtained from the Auburn University Institutional Review Board (IRB) prior to the beginning of the study. Participants will primarily be adults who stutter from the ages of 19 years and older. Individuals who choose to participate in this study will click on the link to the survey platform and will be navigated to Qualtrics to complete the study. Participants will be recruited through social media platforms including Facebook, Instagram, and Twitter. This survey was designed to be compatible with multiple types of browsers and accessed by various devices, such as a smart phone or computer. Participants are informed that the expected time commitment will be approximately 20 to 30 minutes. The researchers disclosed the possible risks

and benefits related to participation in this study. All data collected from participants will remain anonymous, and participants are informed that any information provided will remain confidential. Participation in this study is voluntary and there is no reward or incentive for participating.

Chapter III

Manuscript

Stuttering can be defined as a chronic life condition that requires management and can affect an individual who stutters (IWS)' cognitive and social perspectives (Craig et al., 2011, p. 193; Plexico et al., 2019, p. 53). In the daily life of an IWS, disfluency can become a part of the individual's identity and shape their overall perception of well-being and life satisfaction (DiLollo et al., 2003; L. Plexico et al., 2009; L. W. Plexico et al., 2009). How to successfully manage stuttering and best cope with or adapt to the experience of being an IWS is not universally agreed upon or known. Most could probably agree that stuttering is dynamic and complex. There is significant variability in how people who stutter as a group approach stuttering management and the overall impact it has on the course of their life. That is, stuttering is multidimensional and the factors that contribute to successful management, however that is defined for the IWS, is also likely multifaceted. Identifying what factors or combination of factors contribute to a better quality of life is important for helping people who stutter successfully manage that experience.

Characteristics of Stuttering

There are external and internal components of stuttering. Sheehan's Iceberg Analogy conceptualizes stuttering as composed of more than what can be observed and encompasses the inner experience of the speaker (Panzarino et al., 2024; Sheehan, 1970). Common external stuttering behaviors that are observable to a listener can include repetitions, prolongations, and blocks (Ambrose & Yairi, 1999). Internal or the emotional experiences of an IWS can be categorized as affective, behavioral, and cognitive (ABC) reactions to stuttering (Panzarino et al., 2024; Yaruss, 1998). Affective (A) reactions can be described as the preliminary fear of

moments of disfluency and includes feelings associated with the anticipation of stuttering such as: embarrassment, guilt, anxiety, isolation, hopelessness, exhaustion, fear, etc. (Panzarino et al., 2024; Tichenor & Yaruss, 2019). These are ingrained and occur below the surface. For an IWS, behaviors (B) or reactions to stuttering can either be covert and hidden or overt and visible to listeners (Bloodstein et al., 1995; Tichenor & Yaruss, 2019; Van Riper, 1971). In Sheehan's iceberg analogy, overt behaviors can be considered as the tip of the iceberg and are components of stuttering that are observed by others. Contrastingly, covert reactions to stuttering may include attempts to hide stuttering, escape stuttering situations, or speak around commonly stuttered words (circumlocution) to avoid stuttering (Tichenor & Yaruss, 2019). Both covert and overt behaviors can enhance fear of interacting with others and lead to conversational and social disengagement for an IWS (Panzarino et al., 2024; Tichenor & Yaruss, 2019).

Lastly, stuttering may cause an IWS to doubt their sense of control, alter their self-esteem, and shape their identity (Tichenor & Yaruss, 2019). These behaviors are known as cognitive reactions to stuttering (C). An IWS' self-esteem and identity can greatly be affected by the ability to anticipate stuttering events and ability to gain a sense of control over moments of disfluency (Tichenor & Yaruss, 2019). When perceived externally, stuttering is separate from an IWS sense of self and factors that contribute to their personhood.

Stuttering and Self-Stigma

Social anxiety is the fear or embarrassment of interacting with others daily (Blumgart et al., 2010)2010). Everyday tasks such as talking on the phone or ordering from a restaurant can be emotionally taxing, cognitively demanding, cause anxiety, and increase self-stigma for an IWS. Self-stigma is the process of internalizing stereotypes from others and is the damage to self-

esteem due to negative public perceptions (Michael P. Boyle, 2013; Corrigan et al., 2011, p. 339). For IWS, self-stigma is a demoralizing cognitive reaction to stuttering.

Boyle (2013) found that self-stigma can decrease self-esteem and damage self-worth; therefore, limiting resilience, hope, and belief in achieving goals (Michael P. Boyle, 2013; Corrigan et al., 2011). The quality of negative perceptions related to self-stigma, in addition to overall quality of life in an IWS, was first analyzed by Corrigan and colleagues (2011) to form the four levels of progressive self-stigma: stereotype awareness, stereotype agreement, self-occurrence/ application, and harm (Corrigan et al., 2011). Boyle (2013) specifically applied this model to stuttering with his Self-Stigma of Stuttering Scale (4S; Michael P. Boyle, 2013; Corrigan et al., 2011). Because these levels are progressive, an IWS awareness of public stereotypes and the extent to which they agree with them are only precursors to the demoralizing process of internalization. Internalization refers to mental representations and beliefs that impact an IWS self-esteem, self-efficacy and overall identity. Self-stigma has the potential to influence an IWS to give way to feelings of hopelessness (Corrigan et al., 2011). Therefore, self-stigma may harm an IWS confidence and belief in their ability to achieve their goals.

Stuttering Severity

Self-perceived stigma may also be attributed to the severity of stuttering or the degree to which internalized thoughts inhibit hopefulness in an IWS and prohibit flourishing. An IWS' experience with stuttering can largely affect perceived communication success and stuttering severity (Riley, 2009; Tichenor & Yaruss, 2019). Self-reported severity rating tools, like the Perceived Stuttering Severity Scale (PSSS) have been determined to be valuable and reliable resources for providing a holistic picture of an IWS global experience of stuttering- including

covert thoughts and behaviors (Iverach et al., 2009; Sue O'Brian et al., 2004; O'Brian et al., 2011).

Coping

Lazarus and Folkman (1984) describe coping as an individualized management process of life stressors. Swartz and colleagues (2011) define beneficial coping strategies as functional and counterproductive coping strategies as dysfunctional (Swartz et al., 2011). Functional coping strategies are used when the IWS approaches problems in an assertive way and uses thoughts and behaviors to solve problems or lessen stressors (L. Plexico et al., 2009; Swartz et al., 2011). Dysfunctional coping strategies, in comparison, are utilized when an IWS responds to stressors with self-distraction, efforts to deny stressors, escapism, wishful thinking, and self-blame (Swartz et al., 2011).

Coping strategies are typically divided into two primary types: problem-focused coping and emotion-focused coping (Carver & Sheier, 1994; Folkman & Lazarus, 1980; L. W. Plexico et al., 2009; Swartz et al., 2011). Problem-focused coping involves actively managing the stressor (Swartz et al., 2011). With active coping strategies, an IWS can attempt to lessen the event of stuttering through taking initiative. Emotion-focused coping strategies attempt to lessen emotional distress associated with or brought on by a stuttering event (Carver & Sheier, 1994; Folkman & Lazarus, 1980). Emotional coping strategies could have counterproductive consequences such as leading the IWS to fixate on stuttering, mentally disengage from stuttering, reduce effort to deal with the stressor or feel helpless from believing that nothing will change. Both problem-focused and emotion-focused coping strategies have the potential to shape how an IWS views moments of disfluency.

While some PWS experience stress related to the experience of stuttering, an IWS may develop protective qualities that allow them to avoid negative effects of stress (Plexico et al., 2019, p. 54). Lee and colleagues (2013) found that protective factors such as self-efficacy, positive affect, and self-esteem are often associated with higher life satisfaction and greater resilience (Lee et al., 2013; Plexico et al., 2019). If an IWS develops these protective qualities, they are more likely to be resilient and, therefore, develop beneficial coping strategies for the management of stuttering.

Humor can be used as one of these protective coping strategies against negative feelings and has been studied extensively in various contexts (Freud, 1928; Lefcourt, 2001; Lefcourt & Martin, 1986). While humor can be used for coping, humor has many other roles in everyday life and can be a valuable tool for managing life stressors.

Humor

Origins of Humor

Humor is multidimensional and is shaped by cultural rules and social contexts for its understanding and use among people (Martin, 2007). The earliest recorded origins of humor have been attributed to Aristotle and Plato's Greek Theory of Four Humors or bodily fluids including: "blood, phlegm, black bile, and yellow bile" (Martin, 2007, p. 21; Ruch, 1998, p. 7). Over time, humor evolved to be more of an attitude causing a shift away from Aristotle and Plato's physical ideology of humor to a more internal, psychological, and cognitive construct (Martin, 2007; Wickberg, 1998).

Components of Humor

Martin (2007) describes that through the advancement of cognition and linguistics, humor has adapted to the advanced communication and connective needs of society today to be mental

play (Caron, 2002; Martin, 2007). Compared to humor used in primal social play, mental play can be understood as play with words and ideas (Martin, 2007). In his extensive review of humor in the psychology literature, Martin (2007) states that humor is typically divided into four common components: (1) a social context, (2) a cognitive-perceptual process, (3) an emotional response, and (4) the vocal-behavioral expression of laughter (Martin, 2007, p. 5).

Humor is used frequently in social contexts without rules of use or dependency upon familiarity with communication partners. In addition to its use as a socially connective tool, humor is an individualized cognitive-perceptive process in which a person perceives an event, action, idea, conversation, or concept as funny. Martin (2007) found that an individual often finds situations or stimuli humorous if they are "incongruous" or unexpected and out-of-the-ordinary (Gervais & Wilson, 2005; Martin, 2007, p. 7). While humor can be intentionally used for social or cognitive objectives, it also can be an emotional response (Martin, 2007). When an individual perceives a stimulus as humorous, a biochemical reaction in the brain is activated that increases pleasure and elicits emotions such as joy and happiness (Martin, 2007; Mobbs et al., 2003; Szabo, 2003). Lastly, Martin (2007) discusses how humor is perceived as a vocal-behavioral response. The sound of laughter is described as an expression and reaction to humorous stimuli and is often a contagious trigger for laughter in others (Martin, 2007; Owren & Bachorowski, 2003; Russell et al., 2003). Therefore, humor can be used as a beneficial tool to elicit positive behavioral and emotional responses (respectively laughter and joy) in others.

Use of Humor

Martin (2007) divides people's most common uses of humor into four primary categories: either as self-enhancing, self-deprecating, affiliative, or aggressive (Martin, 2007). With these four major types of humor, one can create connections with others, separate oneself from the

experiences of others, boost one's own self-image, or diminish self-image (Martin, 2007). The social contexts of humor can largely affect one's decisions and intentions of communication.

Humor as a Virtue

While humor can be understood as an external facet of one's choices, it can also be viewed as an embedded virtue or characteristic. For example, "having a sense of humor" views humor as a part of someone's personality and is a group of individualized traits (Martin, 2007, p. 193; Ruch, 1998). Martin (2007) breaks down sense of humor into six categories: (1) a cognitive ability, (2) an aesthetic response, (3) a habitual behavior pattern, (4) an emotion-related temperament trait, (5) an attitude, or (6) a coping strategy (Martin, 2007). People with a combination of any of these six traits are perceived to be good-humored, or to have a good sense of humor. Therefore, those who understand humor, use it to their advantage, and utilize humor as a connective tool naturally have a good sense of humor.

Impact of Humor on Well-Being

Depending on its context, humor has the potential to be uplifting or demeaning based on its use which can affect an individual's overall psychological well-being. Humor can be utilized as a coping mechanism to manage unexpected stressors (Martin, 2007). For individuals who stutter, humor has the potential to be a powerful tool for coping with moments of disfluency by managing the event of stuttering and connecting with others. As indicated previously, humor is a tool to build up or tear down self-confidence and/or others' confidence. In the life of an IWS, humor can be used as a management strategy to build up confidence and increase self-esteem. In everyday social contexts, an IWS can also use the four humor types to increase positive emotional responses in others.

Well-Being

Recently, psychologists have collectively embraced a more holistic view of well-being that focuses on psychological benefits including hope, resilience, purpose, and connection with others. The shift in optimistic thinking as it relates to well-being in the literature is known as positive psychology (Gillham & Seligman, 1999; Ryff & Singer, 1998; Seligman, 2010). Seligman (2010) defines well-being by focusing on five components that make life fulfilling and include: "positive emotion, engagement, positive relationships, meaning, and accomplishment" (PERMASeligman, 2010, p. 234). With these five components, the flourishing person chooses optimism and views unfortunate circumstances as temporary (positive emotion), often interacts with those they love (engagement), maintains close and enriching relationships (positive relationships), contributes and belongs to something greater than themselves (meaning), and demonstrates mastery in their achievements (accomplishment) to have great life satisfaction. `

Traditionally, psychologists divide well-being into two different groups: either as Eudaimonic or Hedonic. Eudaimonic well-being, also known as psychological well-being, is related to the ability to recognize one's abilities and direction in life while Hedonic well-being, or subjective well-being, is related to happiness (Diener et al., 2009; Murphy, 2023; Ryff & Keyes, 1995; Waterman, 1993). Someone with good psychological well-being can monitor and improve their abilities to experience pleasure in life.

In addition to the Eudaimonistic view of well-being, there are also divisions of social and subjective well-being. Social well-being extends psychological well-being to the interpersonal realm by examining facets of the social sphere including coherence, acceptance, integration, contribution, and actualization (Keyes, 1998; Murphy, 2023). Subjective well-being can be described as "the combination of having high satisfaction with life while simultaneously having

more pleasant emotional experiences than negative moods" (Diener, 1984; Murphy, 2023, p. 1). The presence of both positive subjective and social well-being is vital for a stutter's positive quality of life.

Flourishing

According to definitions of flourishing in positive psychology research, there are basic psychological and relational needs that must be met for a person to prosper in life, such as the need for competence, relatedness, autonomy, and self-acceptance (Diener et al., 2009; Ryan & Deci, 2000; Ryff, 1989; Ryff & Singer, 1998). Diener et al., (2009) includes these basic psychological needs in his Flourishing Scale to measure psychological and relational wellness in one's life. According to Jeffrey and Mehari (2023), flourishing is defined as the "enjoyment of the best goods achievable in action," while the 'best goods' can be understood as something the flourisher desires that is also of the greatest quality (Jeffrey & Mehari, 2023, p. 15). Therefore, a person must have a goal to achieve something as well as the ability to obtain it to flourish.

Hope

In previous literature in ethics, psychology, and psychiatry, hope has been unified to be defined as a "psychological construct" and was thought to improve or impede one's wellness depending on its state in a person's life (Frank, 1968; Snyder et al., 1991; Talmadge, 2002; Taylor & Brown, 1988). Hope can be positive in the sense that it can spur people to action in achieving their goals (Scheier & Carver, 1985) and negative in the sense that false hope can lead to the opposite effect and harm one's views of accomplishment in life (Snyder et al., 2002). Theories have shifted from defining hope as primarily a needs-based characteristic to a virtue focusing on one's goal-setting ability (Cobb & Green, 2017; Foot, 2002; Jeffrey & Mehari, 2023; Kadlac, 2015; Snow, 2018).

The most widely used theories of hope are based on the work of Charles Snyder. Snyder (1991) defines hope in terms of a person's ability to set goals for oneself and their ability to carry it out (Snyder, 2000; Snyder, 2002; Snyder et al., 1991). Snyder's Hope Theory also states that high hope is related to flourishing and positive emotions while low hope is related to lower flourishing and negative emotions (Snyder, 2000; Snyder et al., 1991). Therefore, a person with high hope can brainstorm different methods and means to meet the goals they set for themselves.

Snyder categorizes hope into what he calls "pathways" and "agencies" (Pleeging et al., 2019; Snyder, 2000; Snyder, 2002; Snyder et al., 1991, p. 570). In Snyder's Hope Theory, an individual's ability to find avenues to reach a goal (pathways) and their belief in their ability to do so (agency) can each impact an individual's wellness. In definition, self-efficacy is someone's belief in their ability to carry out their goals (Bandura, 1994). When the hoper believes in their ability to achieve their goals, in addition to the "absence of its impossibility to obtain", they are more likely flourish (Aquinas, 1964; McGeer, 2004, p. 2; Ryff & Singer, 1998). Eudaimonist Virtue Theory views hope as a psychological disposition that promotes flourishing of those who have hope as a virtue (Aristotle, 1985).

Acceptance

To manage stuttering effectively, a person who stutters must first accept that stuttering is not a debilitating characteristic of themselves, nor does it define them. Dembo et al., (1975) defines acceptance as "a change in the value system" and includes the ability to view quality losses as not negatively impacting an individual's existing values or the individual (De Nardo et al., 2011; Dembo et al., 1975, p. 25; Keany & Glueckauf, 1993). According to Dembo et al., (1975)'s acceptance model, there are four major changes to an individual's "value system" that leads to acceptance including: enlarging of the scope of values, subordinating physique relative

to other values, contenting disability effects, and transforming comparative-status values into asset values (De Nardo et al., 2011, p. 28; Dembo et al., 1975).

Over the course of a value system change, an IWS must conceptualize the four steps needed to overcome stressors associated with stuttering and to maintain a sense of control of the stuttering event. The four value changes proposed by Dembo et al., (1975) and discussed by De Nardo et al., (2011) can shape a person's view of stuttering and self, by increasing values in positive personal attributes.

The relationship between Hope, Humor, Flourishing, and Acceptance

` Because stuttering is a condition that may persist in the life of an IWS, preventative strategies must be in place for effective management of stuttering and its maintenance across time. With the unsystematic overlap of affective, behavioral, and cognitive constructs associated with moments of disfluency, stuttering can quickly diminish self-esteem and contribute to internalization of negative thoughts and emotions for an IWS. Contrastingly, establishing empowering, positive, and functional coping strategies has the potential to greatly decrease negative thoughts and emotions associated with moments of disfluency, such as stigma and mental constructs of disablism, and build self-efficacy. People who are more hopeful are more creative and show more perseverance in pursuing their goals which can lead to higher levels of happiness through greater success in experiences (Bailey et al., 2007; Snyder, 2000). In the life of an IWS, hope can play a role in the management of stuttering for goals to be attainable through agency (Seligman, 2010; Snyder et al., 1991). In the pursuit of flourishing, a person with high resilience and high hope are most likely to reach their goals (Jeffrey & Mehari, 2023; Plexico et al., 2019) Therefore, increasing hope in an individual's life will most likely lead to a life of greater well-being.

In addition to hope, resilience is needed in the life of a stutterer to begin the process of problem-solving and taking steps toward acceptance and life change. According to Martin (2007), humor and coping are tightly linked as resilience and humor both require a change in perspective to achieve one's goals. Both humor and coping with stressors require a re-framework of a person's internal dialogue and self-monitoring system to be able to accept stuttering and overcome barriers to communication successfully with others (Dembo et al., 1975; Fransella, 1972; Martin, 2007).

Purpose

The purpose of this study is to examine the effect that hope, and certain humor types have on flourishing, acceptance, and self-stigma in the life of an IWS. Through our findings, we seek to identify characteristics present in the life of an IWS that contribute to positive well-being and flourishing. The questions addressed in this survey include:

(1) How well do hope and humor predict flourishing, controlling for stuttering severity in an IWS?

    Hypothesis: High hope and greater use of affiliative and self-enhancing humor will predict high flourishing.

(2) How well do hope and humor predict acceptance controlling for stuttering severity in an IWS?

    Hypothesis: High hope and greater use of affiliative and self-enhancing humor will predict high acceptance.

(3) How well do hope and humor predict self-stigma controlling for stuttering severity in an IWS?

Hypothesis: High hope and greater use of affiliative and self-enhancing humor will predict lower self-stigma.

Methods

Participants

To meet the inclusion criteria, participants were required to be 19 years or older and stutter. Individuals who did not qualify according to the criteria were directed to the end of the survey and their responses were not included in the data analysis.

Survey Development, Recruitment, and Distribution

Study methods and procedures were pre-approved by the Auburn University Institutional Review Board (IRB) prior to survey distribution and participation recruitment. Qualtrics, an electronic platform (Qualtrics, 2024), was used to develop and distribute a 100+ item survey measuring six main areas (1) Demographic and Background Information Questionnaire, (2) Self-Stigma of Stuttering Scale (4S), (3) Humor Styles Questionnaire (HSQ), (4) Adult Hope Scale (AHS), (5), Flourishing Scale, (6) Acceptance of Stuttering Scale. The survey was trialed and used to improve survey questions and reduce bias. The following revisions were recommended by the IRB for the study's protocol approval prior to study publication: the terms "PWS" and "IWS" were defined to confirm their meanings, clarification between the number of survey items and sections in the introduction, clarification of use of the flyer for recruitment and email for distribution, and the email script was edited to address specific organizations for recruitment. A finalized IRB protocol document was formed after revisions were implemented.

Individuals who chose to participate in this study clicked on the link to the survey platform and were navigated to Qualtrics to complete the study. Participants were recruited through social media platforms such as Facebook and Instagram. This survey was designed to be

compatible with multiple types of browsers and accessed by various devices, such as a smart phone or computer. Participants were informed that answers would remain anonymous, no reward was provided for participation, and the expected time commitment was approximately 20 to 30 minutes. The researchers disclosed the possible risks and benefits related to participation in this study.

Demographic and Background Questionnaire

A demographic and background questionnaire was administered to gather information regarding participants' age, gender, ethnicity, race, education level, academic degrees, employment status, annual income, previous and current stuttering treatment, and experience with stuttering treatment.

Perceived Stuttering Severity Scale (PSSS)

The Perceived Stuttering Severity Scale (PSSS) is a self-report questionnaire containing 8 items that examine perceptions of stuttering severity in the life of an IWS based on familiar and unfamiliar speaking situations. The goal of the PSSS is to measure the impact of stuttering across different situations and contexts. Participants were asked to rate their typical and worst stuttering severity in speaking situations, where typical stuttering severity is defined as "the severity of your speech for the majority of the day" (O'Brian et al., 2011, p. 88).

Questions on the PSSS are rated by an IWS on a 9-point Likert-type scale (1= No Stuttering and 9= Extremely Severe Stuttering). Higher scores (scores ranging from 5-9) indicate greater perceived stuttering severity for an IWS over time in everyday contexts (Sue O'Brian et al., 2004; S. O'Brian et al., 2004). A study on the 9-point stuttering severity scale concluded that both the percent syllables stuttered or the 9-point stuttering severity scale were interchangeable and were reliable measures of stuttering severity (S. O'Brian et al., 2004).

Self-Stigma of Stuttering Scale (4S)

The Self-Stigma of Stuttering Scale (4S) contains 33-items evaluating three major components of self-stigma including: (a) stigma awareness, (b) stereotype agreement, and (c) self-occurrence. The goal of the 4S is to measure internalized self-stigma associated with stuttering in adults. Questions on the 4S are rated by an IWS on a 5-point Likert-type agreement scale (1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree. Score values on each subscale are averaged providing a total self-stigma score with higher scores indicating high self-stigma and lower scores indicating low self-stigma. There are 14 items on the stigma awareness subscale, seven items on the stereotype-agreement subscale, and 12 items on the self-occurrence subscale. Positively worded items are reverse scored. Averaged scores above a three indicate high levels of self-stigma while scores below three indicate low levels of stigma with a score of exactly three representing the midpoint of neither agreeing nor disagreeing with stigma.

The internal consistency and reliability of the 4S have been found to be adequate with coefficient alpha (α) values ranging from .70 and .89. To determine temporal stability, test-retest correlations (administered two weeks apart) were calculated and yielded results ranging from .55 to .82 for its subscales compared to other stigma questionnaire subscales ranging from .55 - .90. Construct validity was evaluated through analyzing hypothesized relationships between stigma self-concurrence, self-esteem, self-efficacy, and life satisfaction. After regression analyses were conducted between variables, correlations were found to support hypotheses indicating good construct validity.

Humor Styles Questionnaire (HSQ)

The Humor Styles Questionnaire (HSQ) is used to examine the uses of humor in individuals and their relation to psychological well-being (Martin et al., 2003). Questions on the HSQ are rated on a 7-point Likert scale (1= totally disagree, 2= moderately disagree, 3= slightly disagree, 4= neither agree nor disagree, 5= slightly agree, 6= moderately agree, and 7= totally agree). The HSQ consists of 32-items or four 8-item subscales assessing 4 types of individual uses of humor including: (a) humor to advance the self (Self-enhancing humor), (b) humor to connect with others (Affiliative Humor), (c) humor at the expense of self to connect with others (Self-defeating humor), and (d) humor used at the expense of others to enhance the self (Aggressive Humor). All scores are compiled, and subscale scores are determined per humor type. Some items in each scale are reverse scored. The sum across all 8 items in each scale provide subscale totals with a minimum score of 8 and high score of 56. Higher scores per humor type indicate higher frequency of its use and lower scores per humor type indicate lower frequency of use. The internal consistencies of the four scales were adequate as demonstrated by Cronbach's alpha (α) values ranging from .77 to .81. Low correlational findings accounted for the distinct uses of humor represented in each subscale and provides evidence for the construct validity of the four subscales.

Adult Hope Scale (AHS)

The Adult Hope Scale (AHS) is a 12-item questionnaire assessing an individual's goal-orienting abilities including (a) forming a plan to achieve one's goals (pathways) and (b) carrying out the plan (agency). The objective of the AHS is to examine these abilities over time. Four questions on the AHS are related to pathways thinking, four are related to agency thinking, and four are filler questions. AHS items are rated on an 8-point Likert scale (1= definitely false,

2= mostly false, 3= somewhat false, 4= slightly false, 5= slightly true, 6= somewhat true, 7= mostly true, 8= definitely true) and require a person to choose the degree to which they agree or disagree with a statement. Scores are summed and "agency" or "pathways" subscale scored are derived (Snyder et al., 1991, p. 585). Subscale scores will be derived by summing the subscales with a minimum score of 4 and maximum score of 32 for each subscale. The total hope scale score can range from 8 to 64. Scores from 8-39 are interpreted as lower in hope, while scores 40-48 are interpreted as hopeful, scores from 48-56 are moderately hopeful, and 56 or higher are high hope. This scale demonstrates acceptable internal consistency with Cronbach's alpha (α) ranging from .74 to .84 as well as adequate test-retest reliability (Snyder et al., 1991).

Flourishing Scale (FS)

The Flourishing Scale (FS) is a brief 8-item measurement that assesses an individual's psychological flourishing and includes perceived success in relationships, self-esteem, purpose, and optimism (Diener et al., 2009). The aim of the FS is to measure social-psychological prosperity in respondents. FS items include three statements about social relationships, one statement measures purpose and meaning in life, one examines engagement, one examines self-respect, one evaluates optimistic outlook, and one statement assesses feelings of competence. Responses to the FS are provided using a 7-point Likert scale (1= strongly disagree, 2= disagree, 3= slightly disagree, 4= neither agree nor disagree, 5= slightly agree, 6= agree, and 7= strongly agree) and requests participants to assign a number for the degree to which they agree or disagree with a statement. Scale responses are added from all eight items and range from 8 (lowest possible score) to 56 (highest possible score) and yield a single psychological well-being score. The FS demonstrated high reliability and high convergence with similar scales (correlating with sums of others scales at .78 and .73). Internal reliability and temporal stability were both

adequate with a Cronbach's alpha (α) of .87 and a temporal stability of .71. A more recent study using the FS as a measurement in mental wellness also found good internal consistency with a Cronbach's alpha (α) of .86 (Schotanus-Dijkstra et al., 2016) accounting for the scale's good reliability.

Acceptance of Disability Scale- Modified (ADM)

The Acceptance of Disability Scale-Modified (ADM) is an alternate version of Li and Moore's (1998) Acceptance of Disability Scale while the term "disability" is replaced by "stuttering" (ADS; De Nardo et al., 2011, p. 20; Li & Moore, 1998). The ADM presents 10-items related to an IWS perceptions and acceptance of stuttering and examines psychosocial factors in the life of a stutterer including: self-esteem, hostility, emotional support, and discrimination. The goal of the ADM is to determine an IWS level of acceptance through analyzing the impact of stuttering on well-being. Questions on the ADM are scored on a 5-point-Likert-type scale ranging from 1 (strongly agree) to 5 (strongly disagree) and require an IWS to choose the degree to which they agree or disagree with a statement.

Scores on the ADM ranging from 40 and above indicate higher levels of acceptance, 30-39 indicate some acceptance, and scores of 29 and below indicate lower levels of acceptance of stuttering (De Nardo et al., 2011). In a study performed to assess the structure of a modified ADS, internal consistency between items was found to be acceptable with Cronbach's alpha (α) of .90 (Groomes & Linkowski, 2007). Additionally, the overall reliability and construct validity of the ADM scale was found to be successfully modified in other studies (Groomes & Linkowski, 2007; Richardson et al., 2001).

Analysis

Descriptive statistics are provided for all demographic data. The portions of the survey evaluating flourishing, acceptance, and self-stigma were scored and serve as the dependent variables. The portions evaluating hope and humor were scored and served as independent variables. Hierarchical Linear Regression Analysis was used to evaluate whether the independent variables (i.e., hope and humor) differ across the 3 scored dependent variables (flourishing, acceptance, and self-stigma) with the demographic factor of stuttering severity serving as a moderator.

Results

Data Analysis

Survey data was extracted from Qualtrics, and completion of the full survey was examined using Excel. Data analysis was completed using IBM Statistical Package for the Social Sciences (SPSS)Version 29. For each variable tested, descriptive statistics were obtained, and the mean and standard deviations were identified. The strength of relationships between the variables were measured using Pearson correlation coefficients. Relationships between dependent and independent variables were determined using linear regression analysis.

Demographics and Background

Inclusion criteria were presented in the first three questions to participants before the completion of the survey. The survey was initiated by 247 individuals. However, only152 individuals satisfied both the inclusion criteria requirements and completed the survey in its entirety. Of the total respondents, 95 participants did not finish the survey, and 50 participants did not complete demographic information. Therefore, only 152 participants were included in the

data analysis. The following results represent the findings from respondents that completed the survey in its entirety.

Prior to the completion of survey items, participants were instructed to complete a questionnaire regarding their preferred gender, race and ethnicity, region of survey completion, and highest level of education to obtain information about the study population. Multiple selections were allowed for the demographic variable of race and ethnicity indicated by an asterisk in Table 1. Respondents indicated that the most preferred gender was male (67.8%; n=103), were of White or Caucasian origin (48%; n=73), resided in the South (36.2%; n=55), and completed a bachelor's degree as the highest level of education (45.4%; n=69).

Table 1

Participant Demographics

Gender, Race and Ethnicity, Region, Education

Demographic Variable (N=152)	n	%
Preferred Gender		
Male	103	67.8
Female	43	28.3
Nonbinary	2	1.3
Prefer not to say	1	0.7
Other	2	1.3
No Response	1	0.7
Race and Ethnicity*		
American Indian or Alaskan Native	13	8.6
Asian	6	3.9
Black or African American	39	25.7
Native Hawaiian	2	1.3
White or Caucasian	73	48
Hispanic or Latino	11	7.2
Other	1	0.7
No Response	7	4.6
Region		
Northeast: New England and the Middle Atlantic	31	20.4
Midwest: East North Central and West North Central	41	27.01
South: South Atlantic, East South Central, and West South Central	55	36.2
West: Mountain and Pacific	22	14.5
No Response	3	2.0
Highest Level of Education		
Technical or Occupational Certificate	5	3.3
Some high school	8	5.3
High School degree or equivalent	18	11.8
Associate Degree	9	5.9
Some college coursework completed	7	4.6
Bachelor's Degree	69	45.4
Master's Degree	32	21.1
Doctorate	1	0.7
Professional	3	2.0
No Response	0	6.2

Note. N= total number of completed responses; n= number of respondents; %= percentage of respondents; *=multiple choices allowed.

Stuttering Services and Overall Experience

Participants were also asked to report any services they received for stuttering. These include previously received stuttering services, currently receiving stuttering services, the types of service(s) received, the number of years they received services for stuttering, and overall experience with stuttering services. Multiple selections were allowed for types of services received. Other service types reported included medication or pharmacologic aid, a SpeechEasy device, hearing, and holistic Speech therapy.

If participants selected "yes" for previously received services or currently receiving services, they were automatically directed to type of service(s) received, years of stuttering therapy, and overall experience with services. If participants selected "no" for either previously received services or currently receiving stuttering services, they were redirected to continue the survey without answering these questions. Most respondents indicated they previously received services for stuttering (69.1%; n=105), were not currently receiving stuttering services (62.5%; n=95), received Speech Therapy (38.8%; n=59), received 5 or more years of stuttering therapy (31.6%; n= 48), and rated their overall experience with stuttering services as "Good" (32.9%; n=50).

If participants selected "yes" for either previously received services or currently receiving services, they were directed to answer open-ended responses regarding the influence of therapy on their perception of stuttering. While positive-leaning responses varied on which service modality was most beneficial, most responses indicated that stuttering services generally aided in self-stigma of stuttering (management, confidence, acceptance, comfort, disclosure, etc.). Self-stigma results will be discussed further during survey analysis of participant responses from the self-stigma scale (4S).

The consensus among negative-leaning responses to stuttering services indicated that services failed to be helpful/ didn't work, lacked clinician competence, created self-blame or shame, or increased feelings of handicap. Therefore, the consensus among participants yielded an overall positive reaction to stuttering services including an increase in positive self-perception. However, a minority of respondents indicated that stuttering services caused damage to self-perception.

Table 2

Stuttering Services

Previous Services, Current Services, Types of Services, Years of Therapy, Overall Experience

Services	n	%
Previously Received Services for Stuttering		
Yes	105	69.1
No	45	29.6
Prefer not to say	1	.7
No Response	1	.7
Currently Receiving Services for Stuttering		
Yes	57	37.5
No	95	62.5
Type of Services Received for Stuttering*		
Speech Therapy	59	38.8
Psychological	11	7.2
Neurological	2	1.3
Prefer not to say	1	.7
No Response	79	52.0
Years of Stuttering Therapy		
1-2 years	41	27.0
3-4 years	27	17.8
5 years or more	48	31.6
No Response	36	23.7
Overall Experience with Stuttering Therapy		
Poor	9	5.9
Fair	13	8.6
Neutral	29	19.1
Good	50	32.9
Excellent	16	10.5
No Response	35	23.0

Note. n= number of respondents; %= percentage of respondents; *= multiple choices allowed.

Age

Questions were administered to participants regarding their current age. Respondents were instructed to self-report their age in textboxes on the questionnaire. The majority of respondents were between the ages of 25-34 years (36.2%; n=55) with a mean age of 35 years (M= 35.28; *SD*= 15.22), a minimum age of 19 years, a maximum of 81 years, and a range of 62 years indicated in Table 3.

Table 3

Age
Participants' Age

Age	n	%	M	Min	Max	Range	SD
Current Age							
19-24 years	37	24.3					
25-34 years	55	36.2					
35-44 years	23	15.1	35.28	19	81	62	15.22
45-54 years	12	7.9					
55-64 years	12	7.9					
65+ years	9	5.9					
No Response	4	2.6					

Note. n= number of respondents; %= percentage of respondents; M= mean; Min= minimum value; Max= maximum value; Range= range of max and min values; *SD*= Standard Deviation

Severity

Respondents were instructed to rate typical stuttering severity for eight different speaking situations on a slide-style scale (PSSS), where "typical" indicates severity experienced for the majority of the day. A score of one indicates no stuttering whereas a score of nine indicates extremely severed stuttering. Descriptive statistics for the PSSS are reported in Table 4. The mean of respondents' total scores from the PSSS indicated that stuttering severity was rated approximately at a 5 (M= 5.45; *SD*= 1.63). Most respondents self-reported that their typical stuttering severity was noticeable but not extremely severed during the day. Table 5 displays the correlation analysis for stuttering severity as a moderator and reveals that 56 out of 91

correlations were statistically significant. According to Table 5, stuttering severity appeared to have a significant positive relationship with HSQsd ($r(152) = .228$, $p < .001$), 4ST ($r(152) = .210$, $p < .001$), and 4SSo ($r(152) = .285$, $p < .001$) with no significant negative relationships.

Stigma

Participants were administered a stigma questionnaire (4S) that required them to rate the level of which they disagreed or agreed with 33 statements on a scale of one (totally disagree) to five (totally agree). During the scoring of all responses, participants received a total self-stigma score, and three subscale scores including self-occurrence, stigma awareness, and stereotype agreement.

The mean total score on the 4S total scale (4ST) was 3 (M= 3.03; SD= 0.50) indicating neither agreement or disagreement with self-stigma across respondents (see Table 4). 4ST was observed to have a significant positive relationship with PSSS ($r(152) = .210$, $p < .001$), AHST ($r(152) = .246$, $p < .001$), AHSa ($r(152) = .312$, $p < .001$), HSQsd ($r(152) = .405$, $p < .001$), FST ($r(152) = .297$, $p < .001$), and ADMT ($r(152) = .601$, $p < .001$). 4ST was observed to have a significant negative relationship with HSQAff ($r(152) = -.338$, $p < .001$). These results reveal that participants with greater self-stigma are more likely to have greater stuttering severity, more overall hope, more agency in hope, greater use of self-deprecating humor, greater flourishing, and greater overall acceptance of disability. Additionally, results revealed that participants with less self-stigma are more likely to use affiliative humor. See Table 5 for correlation data regarding total self-stigma, self-stigma subtypes, and variables.

The mean score of the 4SSo was 3 (SD= 0.83) indicating that the majority of participants neither agree or disagree with the internalization of negative stereotypes from the public (see Table 4). The 4SSo was observed to have a significant positive relationship with PSSS ($r(152) =$

.285, $p < .001$), AHSa ($r(152) = .248$, $p < .001$), HSQAgg ($r(152) = .299$, $p < .001$), HSQsd ($r(152) = .487$, $p < .001$), ADMT ($r(152) = .584$, $p < .001$), 4ST ($r(152) = .844$, $p < .001$), and 4SSag ($r(152) = .540$, $p < .001$). The 4SSo was observed to have a significant negative relationship with HSQAff ($r(152) = -.459$, $p < .001$) and FST ($r(152) = -.216$, $p < .001$). Results revealed that participants with high self-occurrence also are most likely to have high perceived stuttering severity, more agency in hope, greater use of aggressive and self-deprecating humor, greater overall acceptance, higher self-stigma, and greater stereotype agreement. Results also reveal that participants with lower self-occurrence are more likely to use affiliative humor type and have higher overall flourishing scores. See Table 5 for correlation data between 4SSo and variables.

The mean score of the 4SSaw was 3 (M=3.23; *SD*= 0.58) indicating that most respondents neither agreed nor disagreed with public stigma-awareness as reported (see Table 4). According to Table 5, the 4SSaw was observed to have a significant positive relationship with 4ST ($r(152) = .613$, $p < .001$) and no significant negative relationships with tested variables. Results from the 4SSaw reveal that participants were more likely to detect public stereotypes if they also had higher overall self-stigma.

The 4SSag had a mean of 3 (M= 2.68; *SD*= 0.65) indicating that most respondents neither agreed nor disagreed with public stereotypes as reported in Table 4. The 4SSag was observed to have a significant positive relationship with AHST ($r(152) = .432$, $p < .001$), AHSp ($r(152) = .343$, $p < .001$), AHSa ($r(152) = .461$, $p < .001$), HSQAgg ($r(152) = .298$, $p < .001$), HSQsd ($r(152) = .406$, $p < .001$), ADMT ($r(152) = .519$, $p < .001$), 4ST ($r(152) = .631$, $p < .001$), and 4SSo ($r(152) = .540$, $p < .001$). The 4SSag subscale was observed to have a significant negative relationship with HSQAff ($r(152) = -.402$, $p < .001$) and FST ($r(152) = -.374$, $p < .001$). Results

reveal that with greater stereotype agreement, participants are more likely to have greater overall hope, greater pathways and agency in hope, higher use of aggressive and self-deprecating humor, greater acceptance of disability, greater overall self-stigma, and greater self-occurrence. 4SSag results also indicated that with less stereotype agreement, participants are more likely to use affiliative humor more and have higher overall flourishing.

Humor

Participants were asked to indicate the level to which they agree or disagree with a statement about use of humor. Four different types of humor were evaluated including affiliative, self-enhancing, aggressive, and self-deprecating. Descriptive statistics for the four humor types are listed in Table 4.

The mean score of HSQAff was 36 (M= 35.52; *SD*= 6.81) indicating that participants overall had high use of affiliative humor. The HSQAff subscale was observed to have a significant positive relationship with FST ($r(152) = .249$, $p < .001$). The HSQAff was observed to have a significant negative relationship with AHST ($r(152) = -.234.$, $p < .001$), AHSa ($r(152) = -.234$, $p < .001$), HSQAgg ($r(152) = -.336$, $p < .001$), HSQsd ($r(152) = -.342$, $p < .001$), ADMT ($r(152) = -.368$, $p < .001$), 4ST ($r(152) = -.338$, $p < .001$), 4SSo ($r(152) = -.459$, $p < .001$), and 4SSag ($r(152) = -.402$, $p < .001$). Results from the HSQAff indicate that participants who use greater affiliative humor with others may have higher flourishing. HSQAff correlation results also revealed that participants with lesser use of affiliative humor may have higher overall hope, greater agency in hope, are more likely to use aggressive and self-deprecating humor types, have greater acceptance, higher overall self-stigma, higher self-occurrence, and greater stereotype agreement.

The HSQSe had a mean score of 37 (M=36.70; *SD*= 8.42) indicating that respondents had an overall high use of humor to advance the self. The HSQSe was observed to have a strong positive relationship with HSQSd ($r(152) = .229$, $p < .001$) and FST ($r(152) = .411$, $p < .001$). HSQSe was observed to have a strong negative relationship with AHST ($r(152) = -.431$, $p < .001$), AHSp ($r(152) = -.421$, $p < .001$), and AHSa ($r(152) = -.381$, $p < .001$). Results from the HSQSe reveal that with greater use of self-enhancing humor, participants were more likely to use self-deprecating humor and have overall higher flourishing. Results also reveal that with less use of self-enhancing humor, participants were more likely to have higher overall hope, higher pathways, and higher agency in hope.

The mean score of HSQAgg was 25 (M= 25.07; *SD*= 7.64) indicating that most participants moderately use humor at the expense of others compared to other humor types. the expense of others. Correlation data presented in Table 5 revealed that the HSQAgg humor subtype was observed to have a significantly positive relationship with AHST ($r(152) = .420$, $p < .001$), AHSp ($r(152) = .417$, $p < .001$), AHSa ($r(152) = .364$, $p < .001$), HSQSd ($r(152) = .599$, $p < .001$), and ADMT ($r(152) = .321$, $p < .001$). HSQAgg was also observed to have a significant negative relationship with HSQAff ($r(152) = -.336$, $p < .001$) and FST ($r(152) = -317.$, $p < .001$). Results from the HSQAgg revealed that with greater use of aggressive humor, the majority of participants most likely have higher overall hope, use pathways and agency in hope, and also use more self-deprecating humor. Results also indicated that with lesser use of the aggressive humor type, participants were more likely to use affiliative humor and have higher overall flourishing.

The HSQSd had a mean score of 27 (M=26.92; *SD*= 9.96) as indicated in Table 4. The

mean HSQSd score reveals that the majority of respondents moderately use humor at the expense of themselves. The HSQSd was observed to have a significantly positive relationship with PSSS ($r(152) = .228$, $p < .001$), HSQSe ($r(152) = .229$, $p < .001$), HSQAgg ($r(152) = .599$, $p < .001$), ADMT ($r(152) = .287$, $p < .001$), 4ST ($r(152) = .405$, $p < .001$), 4SSo ($r(152) = .487$, $p < .001$), and 4SSag ($r(152) = .406$, $p < .001$). HSQSd was observed to have a significant negative relationship with HSQAff ($r(152) = -.342$, $p < .001$). Therefore, results reveal that with greater use of self-deprecating humor, participants were more likely to have greater perceived stuttering severity, use more self-enhancing and aggressive humor, have higher acceptance, greater overall self-stigma, higher self-occurrence, and greater stereotype-agreement. Contrastingly, participants who are less likely to use self-deprecating humor are more likely to use affiliative humor, or humor to connect with others.

Flourishing

Respondents were asked to indicate the level to which they agree or disagree with 8 statements regarding participants' overall well-being and flourishing in life. Scores on the Flourishing Scale yield a singular total score.

The mean score of the FST was 45 (M= 44.56; *SD*= 8.61) indicating that the majority of participants had overall high flourishing. The FST was observed to have a significant positive relationship with HSQAff ($r(152) = .249$, $p < .001$), HSQSe ($r(152) = .411$, $p < .001$), and ADMT ($r(152) = .534$, $p < .001$). The FST was observed to have a significant negative relationship with 4ST ($r(152) = -.297$, $p < .001$), 4SSo ($r(152) = -.216$, $p < .001$), 4SSag ($r(152) = -.374$, $p < .001$), AHST ($r(152) = -.731$, $p < .001$), AHSp ($r(152) = -.651$, $p < .001$), AHSa ($r(152) = -.710$, $p < .001$), and HSQagg ($r(152) = -.317$, $p < .001$). Therefore, results indicate that participants with greater overall flourishing also are likely to use affiliative and self-enhancing

humor types and greater overall acceptance. Results also indicated that participants with lesser flourishing are more likely to have higher overall self-stigma, higher self-occurrence, higher stereotype agreement, greater overall hope, greater pathways and agency in hope, and use more aggressive humor.

Hope

Participants were asked to rate the level to which they believed statements to be true or false about them on a 8-point scale ranging from totally false to totally true. Hope is divided into three different scores: pathways, agency, and total hope. Total hope is comprised of the pathways and agency scores.

The total mean of the AHS was 24 (M= 24.49; *SD*= 9.12) which indicated that participants overall had low hope. See descriptive statistics for hope in Table 4. The mean of the pathways subscale was 12 (M= 12.3; *SD*= 4.90) and the mean of the agency subscale was 12 (M=12.13; SD= 4.90). The mean of both subscale scores indicates that participants overall had low goal-orienting abilities-including the inability to form a plan to meet goals-and low goal-attainment abilities or the ability to carry out plans. Therefore, overall hope and developing components of hope was reportedly low among participants.

The AHS total scale was observed to have a significant positive relationship with AHSp ($r(152) = .931$, $p < .001$), AHSa ($r(152) = .931$, $p < .001$), HSQAgg ($r(152) = .420$, $p < .001$), ADMT ($r(152) = .469$, $p < .001$), 4ST ($r(152) = .246$, $p < .001$), and 4SSag ($r(152) = .432$, $p < .001$). AHST was observed to have a significant negative relationship with HSQAff ($r(152) = -.234$, $p < .001$), HSQSe ($r(152) = -$ ..431, $p < .001$), and FST ($r(152) = -$ 731., $p < .001$). The results indicate that total overall hope most likely increases with higher pathways and agency, more use of aggressive humor, greater acceptance, and greater stigma, and greater stereotype

agreement. Results also indicate that hope is lower with greater use of affiliative and self-enhancing humor, and higher flourishing.The mean of the AHSp was 12 (M=12.36; *SD*= 4.90) which indicated that participants scored low in the ability to formulate pathways or goals. The AHSp was observed to have a significant positive relationship with AHST ($r(152) = .931$, $p < .001$), AHSa ($r(152) = .734$, $p < .001$), HSQAgg ($r(152) = .417$, $p < .001$), ADMT ($r(152) = .364$, $p < .001$), and 4SSag ($r(152) = .343$, $p < .001$). The AHSp was observed to have a significant negative relationship with HSQSe ($r(152) = -.421$, $p < .001$), and FST ($r(152) = -.651$, $p < .001$) as reported in Table 5. Therefore, participants likely form pathways for hope with high overall hope, greater agency, greater use of aggressive humor, greater acceptance of disability, and greater stereotype agreement. The results also reveal that with a weak ability to form goals, participants are more likely to use self-enhancing humor and have greater overall flourishing.

As reported in Table 4, the mean of the AHSa was 12 (M=12.13; SD= 4.90) indicating that participants had overall low scores in the ability to carry out plans. The ASHa was observed to have a significant positive relationship with HSQAgg ($r(152) = .364$, $p < .001$), ADMT ($r(152) = .511$, $p < .001$), 4ST ($r(152) = .312$, $p < .001$), 4SSo ($r(152) = .248$, $p < .001$), and 4SSag ($r(152) = .461$, $p < .001$). The ASHa was observed to have a significant negative relationship with HSQAff ($r(152) = -.234$, $p < .001$), HSQSe ($r(152) = -.381$, $p < .001$), and FST ($r(152) = -.710$, $p < .001$). Results reveal that with greater agency, participants used more aggressive humor, had greater overall acceptance, greater self-stigma, higher self-occurrence and higher stereotype agreement. Results also indicated that with lower agency, participants were more likely to have higher affiliative humor, higher self-enhancing humor, and greater overall flourishing. See Table 5 for correlation data.

Acceptance

The final scale was the Acceptance of Disability-Scale Modified to include acceptance of stuttering. Scores on the acceptance scale yield a single acceptance total. The mean of the ADMT was 24 (M= 24.42; *SD*= 9.12) indicating that overall acceptance of stuttering was low. See Table 4 for descriptive statistics. The ADMT had a significant positive relationship with 4ST ($r(152) = .601$, $p < .001$), 4SSo ($r(152) = .584$, $p < .001$), 4SSag ($r(152) = .519$, $p < .001$), AHST ($r(152) = .469$, $p < .001$), AHSp ($r(152) = .511$, $p < .001$), HSQAgg ($r(152) = .321$, $p < .001$), and HSQSd ($r(152) = -.287$, $p < .001$). The ADMT had a significant negative relationship with HSQAff ($r(152) = -.368$, $p < .001$), and FST ($r(152) = -.534$, $p < .001$) according to Table 5. Based on results, high acceptance of stuttering is correlated with high self-stigma, high self-occurrence, high stereotype-agreement, greater overall hope, higher pathways, greater use of aggressive humor and greater use of self-deprecating humor. The results reveal that low acceptance of stuttering is correlated with more use of affiliative humor and higher overall flourishing.

Table 4

Descriptive Table of Scales and Subscales (N=152)

Scale	M	SD	Lsv	Msv	Hsv
PSSS					
Total	5.45	1.63			
			< 5	-	5-9
4S					
Self-Occurrence	3.00	0.83			
Stigma Awareness	3.23	0.58			
Stereotype	2.68	0.65			
Agreement	3.03	0.50	< 3	3	> 3
Total					
HSQ					
Affiliative	35.52	6.81			
Self-Enhancing	36.70	8.42	8	-	56
Aggressive	25.07	7.64			
Self-Deprecating	26.92	9.96			
FS					
Total	44.56	8.61	8	-	56
AHS					
Pathways	12.36	4.90			
Agency	12.13	4.90			
Total	24.49	9.12	8-39	48-56	≥ 56
ADM					
Total	24.42	7.70	≤ 29	30-39	≥ 40

Note. M and SD represent mean and standard deviation. Hsv represents high scale values, Msv represents moderate scale values, and Lsv represents low scale values. PSSS= Perceived Stuttering Severity Scale. 4S =Self-Stigma of Stuttering Scale. HSQ= Humor Styles Questionnaire. FS= Flourishing Scale. AHS= Adult Hope Scale. ADM= Acceptance of Disability Scale-Modified.

Table 5

Significance for Relationship Between Variables (N=152)

Scale	M	SD	PSSS	AHST	AHSp	AHSa	HSQAff	HSQSe	HSQAgg	HSQSd	FST	ADMT	4ST	4SSo	4SSaw
PSSS	5.45	1.63	-	-	-	-	-	--	-	-	-	-	-	-	-
AHST	24.50	9.12	.122 [-.038, .275]	-	-	-	-	-	-	-	-	-	-	-	-
AHSp	12.36	4.90	.108 [-.052, .263]	.931** [.906, .950]	-	-	-	-	-	-	-	-	-	-	-
AHSa	12.13	4.90	.118 [-.042, .272]	.931** [.906, .949]	.734** [.651, .800]	-	-	-	-	-	-	-	-	-	-
HSQAff	35.52	6.81	-.181* [-.331, -.023]	-.234** [-.379, -.078]	-.202* [-.350, -.044]	-.234** [-.379, -.078]	-	-	-	-	-	-	-	-	-
HSQSe	36.70	8.42	.136 [-.024, .289]	-.431** [-.552, -.292]	-.421** [-.544, -.281]	-.381** [-.510, -.237]	.138 [-.022, .291]	-	-	-	-	-	-	-	-
HSQAgg	25.07	7.64	.197* [.039- .345]	.420** [.279, .543]	.417** [.276, .541]	.364** [.218, .495]	-.336** [-.470, -.186]	-.110 [-.264, .051]	-	-	-	-	-	-	-
HSQSd	26.92	9.96	.228** [.072, .374]	.091 [-.069, .247]	.074 [-.086, .231]	.095 [-.065, .250]	-.342** [-.475, -.193]	.229** [.072, .374]	.599** [.486, .692]	-	-	-	-	-	-
FST	44.56	8.61	-.056 [-.213, .104]	-.731** [-.797, -.647]	-.651** [-.734, -.548]	-.710** [-.781, -.622]	.249** [.094, .393]	.411** [.269, .535]	-.317** [-.453, -.166]	-.029 [-.187, .131]	-	-	-	-	-
ADMT	24.42	7.70	.164* [.005, .315]	.469** [.335, .585]	.364** [.217, .494]	.511** [.383, .619]	-.368** [-.498, -.222]	-.201* [-.349, -.044]	.321** [.171, .457]	.287** [.133, .426]	-.534** [-.639, -.410]	-	-	-	-
4ST	3.03	0.50	.210** [.053, .358]	.246** [.090, .390]	.146 [-.013, .298]	.312** [.160, .449]	-.338** [-.472, -.189]	-.131 [-.284, .029]	.176* [.017, .326]	.405** [.263, .530]	-.297** [-.435, -.144]	.601** [.488, .694]	-	-	-
4SSo	3.00	0.83	.285** [.132, .425]	.200* [.042, .348]	.124 [-.036, .278]	.248** [.093, .392]	-.459** [-.576, -.324]	-.028 [-.186, .132]	.299** [.146, .437]	.487** [.356, .600]	-.216** [-.363, -.059]	.584** [.468, .680]	.844** [.790, .884]	-	-
4SSaw	3.23	0.59	.019 [-.141, .178]	.006 [-.154, .165]	-.051 [-.209, .109]	.062 [-.098, .219]	.110 [-.050, .265]	-.144 [-.296, .015]	-.179* [-.329, -.021]	-.013 [-.172, .146]	-.119 [-.273, .041]	.196* [.038, .344]	.613** [.503, .703]	.161* [.002, .312]	-
4SSag	2.68	0.65	.094 [-.066, .250]	.432** [.293, .553]	.343** [.195, .477]	.461** [.325, .578]	-.402** [-.527, -.259]	-.149 [-.301, .010]	.298** [.145, .436]	.406** [.264, .531]	-.374** [-.503, -.228]	.519** [.392, .627]	.631** [.525, .718]	.540** [.417, .644]	.043 [-.117, .201]

Note. M (mean) and *SD* (standard deviation). brackets indicate 95% confidence intervals (2-tailed) for each correlation. *significance at the 0.05 level. **significance at 0.01. PSSS= perceived stuttering severity. AHST= Adult Hope Scale total. AHSp= Adult Hope Scale Pathways. AHSa= Adult Hope Scale Agency. HSQAff= Humor Styles Questionnaire Affiliative. HSQSe= Humor Styles Questionnaire Self-Enhancing. HSQAgg= Humor Styles Questionnaire Aggressive. HSQSd= Humor Styles Questionnaire Self-deprecating. FST= Flourishing Scale total. ADMT= Acceptance of Disability Scale Modified Total. 4ST= Self-Stigma of Stuttering Scale total. 4SSo= Self-Stigma of Stuttering Scale self-occurrence. 4Ssag= Self-Stigma of Stuttering Scale Stereotype Agreement. 4Ssaw= Self-Stigma of Stuttering Scale Stereotype Awareness.

Flourishing

A linear regression analysis was conducted to evaluate how well hope and humor predict flourishing above and beyond stuttering severity. The results of this analysis indicated that the stuttering severity did not significantly predict flourishing (R^2 = .003, adjusted R^2 = -.004, F(1,150) = .466, *p* =.496). However, the combination of hope and humor did account for a significant amount of the flourishing variability, (R^2 = .554, adjusted R^2 = .535, F(5,145) = 35.801, *p* < .001). Bivariate correlations were then evaluated to determine the relative strength of the individual predictors. Among the predictor variables, only hope (β = -.662. t = -9.652, p <.001) significantly contributed to the prediction.The findings indicate participants with low hope are flourishing.

Acceptance

A linear regression analysis was conducted to evaluate how well hope and humor predict acceptance above and beyond stuttering severity. The results of this analysis indicated that the stuttering severity does significantly predict acceptance (R^2 = .027, adjusted R^2 = -.020, F(1,150) = 4.159, *p* =.043). Bivariate correlation between stuttering severity and acceptance were positive (r = .164). Hope and humor also accounted for a significant amount of the acceptance variability, (R^2 = .325, adjusted R^2 = .297, F(5,145) = 12.779, *p* < .001). Bivariate correlations were then evaluated to determine the relative strength of the individual predictors. Among the predictor variables, hope, affiliative humor and self deprecating humor significant significantly contributed to the prediction. Hope (β = -.392. t = 4.644, p <.001) finding is positive and indicates higher hope is affilaited with higher acceptance. Affiliative humor (β = -.202. t = -2.654, p =.009) relationship is negative indicating that higher affiliative humor is associated with lower

acceptance. Self deprecating humor (β = .224. t = -2.349, p =.020) finding is positive and indicates greater self deprecating humor is associated with greater acceptance.

Self-Stigma

A linear regression analysis was conducted to evaluate how well hope and humor predict self-stigma above and beyond stuttering severity. The results of this analysis indicated that the stuttering severity does significantly predict self-stigma (R^2 = .044, adjusted R^2 = -.038, F(1,150) = 6.944, *p* =.009). Bivariate correlation between stuttering severity and self-stigma were positive (r = .210). Hope and humor also accounted for a significant amount of the self-stigma variability, (R^2 = .321., adjusted R^2 = .293, F(5,145) = 11.850, $p < .001$). Bivariate correlations were then evaluated to determine the relative strength of the individual predictors. All the predictor variables significantly contributed to the prediction. Hope (β = .196. t = 2.320, p = .022) finding is positive and indicates higher hope is affiliated with greater self-stigma. The affiliative humor (β = -.167. t = -2.187, p =.030) relationship is negative indicating that higher affilaitive humor is associated with lower self-stigma. Self-enhancing humor (β = -.204. t = -2.481, p =.014) relationship is negative indicating that greater self-enhancing humor is associated with lower self-stigma. Aggressive humor (β = -.340. t = -3.500, p =.001) relationship is negative indicating that greater aggressive humor is associated with lower self-stigma. Self-deprecating humor (β = .552. t = 5.785, p ,.001.020) finding is positive and indicates greater self-deprecating humor is associate greater self-stigma.

Discussion

The aim of this study was to determine the impact of hope and humor on an IWS flourishing, acceptance, and self-stigma. Results yielded few expected relationships and several unexpected relationships. Overall findings supported the hypothesis that greater use of positive humor types had a significant positive relationship with flourishing and a significant negative relationship with self-stigma. It was also found that affiliative humor had a significant negative relationship with acceptance while self-enhancing humor yielded no significant relationship with acceptance. This is contrary to the hypothesis that both affiliative and self-enhancing humor types would be associated with an increased acceptance of stuttering.

Flourishing

Flourishing occurs in the life of an IWS when their most desired goals can be achieved. Overall flourishing was found to be high for all participants, which indicated that most participants felt they had the tools necessary to flourishing in life. Consistent with our hypothesis, participants who often used positive humor types, like self-enhancing and affiliative humor, had higher flourishing in life. Therefore, it can be inferred that an IWS can obtain greater flourishing in life with connective humor and using humor to increase one's self-esteem. Additionally, it was found that higher flourishing was inversely related to aggressive humor and hope. This suggests that the use of humor at the expense of others led to decreased flourishing in PWS. Contrary to the hypothesis that high hope will predict high flourishing, hope and the constructs of hope were observed to be inversely related to flourishing. Therefore, results unexpectedly revealed that participants were more likely to flourish despite pathways and agency abilities being low.

These findings are not consistent with present findings in the general flourishing literature. Limited studies have been performed to examine the relationship between both flourishing and hope in the lives of PWS. However, generally there is a positive relationship between these two variables (Cobb & Green, 2017; Foot, 2002; Jeffrey & Mehari, 2023; Johnson et al., 2014; Kerpelman & Mosher, 2004; Snyder, 2000; Snyder, 2002; Snyder et al., 1991). For example, Ryff and Seligman (1998) discuss how goal setting and "mastery of one's regard" play a role in treatment effectiveness, psychological well-being, and overall health (Ryff & Singer, 1998, p. 21). However, Boyle (2012) found that PWS may be more likely to flourish in life with greater self-resilience/self-efficacy or the ability to establish control over challenges in life (Boyle, 2012; Craig et al., 2011). Therefore, resilience may serve as a possible moderating variable between flourishing and hope. That is, when hope is low, resilience may serve as the protective factor that allows one to still flourish in life. Overall, there was low hope among our sample of PWS. Given stuttering is chronic, and recovery is not likely once an adult, hope may be low as the participants acknowledge that stuttering will remain a part of their life.

There are no studies examining the relationship between affiliative and self-enhancing humor types and flourishing in PWS. Therefore, more research is needed to evaluate the strength between these relationships. Martin (2007) explores the relationship between humor use and well-being by examining humor as a coping mechanism (Martin, 2007). For this purpose, positive humor types could serve as coping "armor" to protect an IWS' psychological well-being. Correlations between humor types and flourishing will be discussed further.

Acceptance

Acceptance of stuttering is the process of separating one's identity from stuttering and avoiding internalization of self-stigma. Overall acceptance of stuttering across respondents was low. Both hope and humor yielded unexpected relationships with acceptance. Acceptance of stuttering was observed to have a significant positive relationship with negative humor types. This is contrary to the hypothesis that affiliative and self-enhancing humor leads to greater acceptance of stuttering. These findings indicate that with greater acceptance of stuttering, participants appeared to use humor at the expense of themselves and at the expense of others. Acceptance of stuttering was unexpectedly observed to have a significant negative relationship with affiliative humor. There were no significant relationships noted between acceptance and self-enhancing humor. These findings are inconsistent with the hypothesis that affiliative humor will lead to increased acceptance. Therefore, use of connective humor with others was not found to contribute significantly to an IWS acceptance of stuttering. The unexpected positive relationship between negative humor types and acceptance may result from a few factors including overall low acceptance of stuttering among participants, internalization of stereotypes or stigma, or an unknown variable that was not evaluated in this study. However, it seems likely that negative humor is used as a coping mechanism and serves as a protective function. With use of negative humor, an IWS may accept stuttering by diminishing the severity or value of stuttering in their lives and not taking stuttering seriously. By caring less about stuttering, an IWS might be able to lessen its effects and have achieved distance from it. Greater acceptance of stuttering occurred with greater overall hope and greater pathways in goal-making. Overall acceptance was observed to have a significant positive relationship with hope. Participants with reportedly greater pathways in goal-making were observed to have higher acceptance of

stuttering. It should be noted, however, that acceptance was not observed to have any significant relationships with agency- or the ability to act on plans for goal attainment. There are limited studies that have evaluated the impact of "agency and pathways" hope on acceptance of stuttering. According to literature on acceptance of stuttering, acceptance occurs when there is a change to a person's value system in which a separation between stuttering and identity is necessary (Michael P. Boyle, 2013; Corrigan & Watson, 2002; De Nardo et al., 2011; Dembo et al., 1975). Creating new pathways and having agency may cause a boost in an IWS confidence to meet the goals they set for themselves. There is an overlap in the hope and acceptance literature that can be used to explain the significant positive relationship found in this study. For example, it can be inferred that by increasing self-efficacy- as described by Snyder (2000) i- an IWS has the potential to separate the label of stuttering from their identity to accept stuttering (Snyder, 2002). That is, positive values come from increasing acceptance and hope in PWS (De Nardo et al., 2011; Dembo et al., 1975; Keany & Glueckauf, 1993) as well as self-efficacy (Bandura, 1994; McGeer, 2004; Pleeging et al., 2019). By increasing these internal values, PWS may increase overall hope and potentially overall acceptance. In summary, increasing hope in an IWS may increase self-image and feelings of control over stuttering leading to overall acceptance.

Self-Stigma

Self-Stigma is the process of internalizing stuttering stereotypes and believing them to be part of one's identity. The level of overall self-stigma among participants was found to be neutral with no significant agreement or disagreement with stigma. It was anticipated that greater stigma would be associated with lower levels of flourishing and acceptance. Findings were not consistent with the hypotheses as self-stigma was reported to have a significant positive relationship with hope and agency. Self-stigma was also found to have a strong positive

relationship stuttering severity. According to these outcomes, PWS had greater internalization of stigma and harmful stereotypes were also likely to display increased hope and the ability to carry out hopeful plans, However, there could be an unknown variable accounting for the unexpected relationship between hope and self-stigma- such as participant resilience. Results also indicate that stigma had a significant negative relationship with affiliative humor. This outcome supports the hypothesis that with greater use of affiliative humor, PWS will have lower self-stigma. There were no significant relationships observed between self-stigma and self-enhancing humor. Participants' responses also indicated that self-stigma had a significant positive relationship with self-deprecating humor. This suggests that PWS will have greater self-stigma with use humor at the expense of themselves.

Current results are not consistent with most findings in the current literature. The current literature indicates that with increased self-stigma, protective tools such as hope, motivation, and resilience were limited along with increased physical health complications (Boyle & Fearson, 2018; Michael P. Boyle, 2013; Corrigan et al., 2011). The stigma literature suggests that self-sigma would decrease flourishing, acceptance, and hope in the lives of IWS leading to a diminished overall quality of life (M. P. Boyle, 2013; Corrigan et al., 2011). Generally, results from this study disagree with the current stigma literature and requires further evaluation to determine what factors are mitigating the relationships between stigma and hope. It is suspected that the correlation between hope and self-stigma is due to participants' low overall hope in this study. Overall findings from this study reveal that self-stigma was lower with lower hope and use of aggressive humor with stuttering severity moderating a strong relationship with hope. It is possible that aggressive humor is being used in a protective manner to cope with stuttering and

that there are other factors like resilience that allow one to have reduced self-stigma despite low hope.

Future Considerations

More research is needed to determine the causation of relationships between hope and dependent variables as results were unexpected with speculated causes. Further study is recommended, including the relationships between humor types and acceptance of stuttering. Consideration of additional variables such as resilience and methods of coping could reveal specific qualities needed to increase hope and acceptance of stuttering. It would be advantageous to repeat this study with a wider variety of participants to examine a variety of experiences with stuttering management across the lifespan as a large majority were recruited from support groups. It also would be beneficial to examine predictors for high agency and pathways in hope leading to greater flourishing and test predictors against acceptance of stuttering. Determining the predictors needed for goal-orienting abilities can aid in developing qualities to protect against internalization of harmful stereotypes. It may also be helpful to modify the survey so participants can explain their stuttering experience to obtain a more holistic and contextualized picture of the interrelationships.

A potential limitation of this study includes the number of variables evaluated. Because of the wide range of variables examined, limited information could be obtained if two variables revealed an unexpected relationship and risked researcher error. If specific relationships between humor types and acceptance were desired, it required further evaluation to determine the consistent trend between variables. Therefore, further evaluation is required to determine whether independent variables directly influenced dependent variables or if a third, unknown variable influenced variable relationships. Another potential limitation of this study is the use of

a self-reported scale. With self-reported measurements, it is possible for participants to exhibit bias in their determination of stuttering severity based on the day. For example, if a participant happened to experience increased severe episodes of stuttering the day of survey completion, stuttering severity could be rated higher than usual. It would be beneficial to examine resilience as a factor between variables and hope and acceptance of stuttering to determine its significance to current findings. Additionally, it should be noted that acceptance and hope were two variables that yielded unexpected results and appeared to be low among overall participants. This potentially dampened relationships between variables. The length of the survey was also a potential limitation as participants may have terminated the survey due to fatigue.

Conclusion

Hope can be a necessary instrument for the motivation of setting and obtaining goals. The level of hope in the life of an IWS can greatly impact acceptance and overall flourishing. Overall hope was found to be low among participants. Results indicate unexpected relationships between hope and dependent variables. High hope was hypothesized to be correlated with high flourishing and high acceptance. However, hope was found to be inversely related to flourishing, contrary to the hypothesis. This suggests that despite low hope in the lives of PWS they can still flourish. As expected, hope has a significant positive relationship between acceptance. This indicates that greater hope in life leads to greater overall acceptance with stuttering. However, those with low hope can still have lower internalized negative feelings from stuttering and less agreement with stereotypes about PWS. Self-stigma is not contingent on high hope. With the shift in hope theory, hope researchers now view hope as a goal-setting ability and virtue (Cobb & Green, 2017; Foot, 2002; Jeffrey & Mehari, 2023; Kadlac, 2015; Scheier & Carver, 1985; Snow, 2018). Therefore, those who are hopeful have predetermined belief in their ability to achieve

goals and find methods to meet those goals (Jeffrey & Mehari, 2023; Johnson et al., 2014; Kerpelman & Mosher, 2004). This structure of goal-oriented abilities is described by Snyder (2000) as pathways and agencies and in theory should lead to greater flourishing for IWS (Snyder, 2000). Therefore, findings are unlike much of the literature in hope and require further evaluation.

Humor was evaluated as an independent variable to determine if positive types of humor served as a coping mechanism and if its use led to greater flourishing and acceptance in the lives of adults who stutter. According to Martin (2007), humor can be used in primarily four ways: to connect with others (affiliative), to enhance the self (self-enhancing), at the expense of others (aggressive), and at the expense of self (self-deprecating; Martin, 2007). Each of these humor types were evaluated to determine the effects on self-stigma, acceptance of stuttering, and flourishing in the life of an IWS.

Findings indicated that affiliative and self-enhancing humor types were highly used across participants while aggressive and self-deprecating humor types were moderately used. Contrary to the hypothesis, affiliative humor was found to have a significant negative relationship with acceptance. This indicates that high use of connective humor leads to low acceptance of stuttering. However, an inverse relationship between affiliative humor and self-stigma was reported. This supports the hypothesis that with greater use of affiliative humor and self-enhancing humor, the lesser the internalization of harmful stereotypes and stigma in PWS. Respondents with reportedly greater use of aggressive humor- or humor used at the expense of others- were found to have low flourishing. These findings support the hypothesis that only positive humor types lead to flourishing. There are no studies examining the relationship between affiliative and self-enhancing humor types and flourishing in PWS. Therefore, more

research is needed to evaluate the strength between these relationships. Martin (2007) explores the relationship between humor use and well-being by examining humor as a coping mechanism (Martin, 2007). For this purpose, positive humor types could serve as coping "armor" to protect an IWS' psychological well-being. Unexpectedly, both aggressive and self-deprecating types of humor had a significant positive relationship with acceptance. This implies that participants had greater acceptance of stuttering with greater use of humor at the expense of others and at the expense of self. Although there is limited research into the effects of humor use in PWS, the majority of humor literature indicates that positive humor types can lead to greater flourishing and overall wellness in life and can serve as a method of coping with everyday problems (Martin, 2007). However, it was found that affiliative humor, aggressive humor, and self-deprecating humor yielded unexpected relationships with acceptance. Continued evaluation into each humor type and its correlation to acceptance is required to justify its cause and effect on acceptance of stuttering. In conclusion, greater use of positive humor types led to greater flourishing while greater use of negative humor types was associated with greater acceptance of stuttering.

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