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A Phenomenological Investigation of the Contextual Variability and Anticipation of Stuttering

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A PHENOMENOLOGICAL INVESTIGATION OF THE CONTEXTUAL VARIABILITY AND ANTICIPATION OF STUTTERING

BY

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DEDICATION

To each and every one of my wonderful participants, whose unbridled enthusiasm, wisdom, and openness to share their vastly unique stories—surrounding the stuttering experience or otherwise— has become a splendidly fulfilling source of inspiration to me as I move forward with my academic and clinical endeavors.

To my extraordinary mentor, Rick Arenas, for sharing in endless talks on everything from etymology and lived experiences to luminous pens—and providing me with countless opportunities to further cultivate my passion to work toward becoming a better researcher, clinician, and bona fide ally to the stuttering community.

Last, but most certainly not least, to my marvelous parents, who instilled within me the love of languages, a thirst for knowledge, the resilience to succeed against all odds, and the desire to celebrate diversity in all its forms. Thank you for telling me, time and time again: *sigue 'pa lante, que cada problema tiene solución.*

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ABSTRACT

INTRODUCTION: Stuttering is a neurologically based speech impairment often defined by listener-oriented parameters (i.e., its overt characteristics). These fail to encompass contextual variability and anticipation, two facets of the speaker's experience which, though frequently encountered by people who stutter (PWS), remain poorly understood and largely under-researched. To better understand the subjective underpinnings of these phenomena, as well as how PWS conceptualize and relate to their stuttering, the present study sought to explore a) the experiences of PWS with the unpredictable and/or variable nature of their stuttering, as well as their beliefs surrounding potential contributors to its variability; b) the experiences of PWS with anticipation, and whether they believe that anticipation has a role in the variability of their stuttering across contexts; and c) the ways in which experiences of contextual variability and/or the anticipation of stuttering may impact levels of self-acceptance, quality of life, and life satisfaction of PWS.

METHODS: Through a series of questionnaires and in-depth phenomenological interviews conducted with ten adults who stutter (AWS) with a diverse range of therapy and support group experiences, this investigation facilitated a qualitative exploration of the contextual variability and anticipation of stuttering to gain a comprehensive, experiencer-oriented understanding of these phenomena.

RESULTS: The current investigation yielded exhaustive, participant-centered descriptions of both stuttering anticipation and variability, comprised of a series of themes and associated subthemes that were both unique and shared across participants' encounters with the phenomena. The dominant themes surrounding participants' illustrations of contextual variability included the following: randomness and cyclical nature of stuttering (both of which were general characterizations of stuttering variability), internal state factors (which contained the "wellness," "emotions," "swearing," and "cognitive factors" subthemes), specific cues (which involved the "words/sounds," "phone," and "experiential association" subthemes), and finally, perceived judgment and social contexts (which entailed the "lack of perceived judgment" and "heightened perceived judgment" subthemes). In addition, the phenomenon of anticipation was found to manifest across several different timescales, characterized as "forecasting," "assessment," and "detection," to better represent the breadth of experiences captured within this phenomenon.

CONCLUSION: The vast range of subjective descriptions derived from participant interviews within the current study can help clinicians better understand the lived experiences of PWS. Validation of clients' unique perspectives can facilitate fruitful discussions, inform client-clinician efforts to identify subjective aspects of stuttering that are most amenable to change on an individualized basis, and promote successful therapeutic outcomes.

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Chapter 1

Introduction

Literature Review

Stuttering is a neurologically based speech impairment characterized by sound repetitions, prolongations, and silent "blocks" which can interfere with the forward flow of speech. It impacts approximately 1% of the world population, including over 3 million people who stutter (PWS) within the United States (Yairi & Ambrose, 2013). Communication in all its forms is an integral aspect of the human experience, as it serves to facilitate the exchange of information and ideas, cultivation of relationships, and navigation through the myriad of interactional contexts that can arise in quotidian routines.

Within the realm of spoken communication, variants in speech production brought about by speech impairments (e.g., stuttering) which diverge from the societal "norms" surrounding how one should speak are often subjected to rampant stigmatization. Thus, PWS may contend with adversely impacted communication interactions (Kondrashov & Tetnowski, 2019), frequent bullying (Blood, Blood, Tramontana, Sylvia, Boyle, & Motzko, 2011; Boyle, 2018), limited career prospects (Gerlach, Totty, Subramanian, & Zebrowski, 2018; Plexico, Hamilton, Hawkins, & Erath, 2019; Schlagheck, Gabel, & Hughes, 2009), and reduced sense of self (De Nardo, Gabel, & Tetnowski, 2016; Plexico, Manning, & Levitt, 2009a), experiences which can serve to negatively alter individuals' overall quality of life (QoL) (Boyle, 2015; Craig, Blumgart, & Tran, 2009).

Running parallel to therapy and research practices surrounding other human behaviors, conceptualizations of stuttering in academic and clinical domains of speech-

language pathology have aligned well with dominant narratives in associated disciplines. While stuttering has largely been viewed through psychological and behavioristic lenses for the greater part of the last century, it has been examined within the context of the medical model over the past several decades (Bernstein Ratner, 2005; Constantino, 2018). Consequently, as dozens of investigations have been conducted in efforts to identify the neural correlates of stuttering, particular emphasis has been placed on treating the condition through a medical lens, as a behavior to be corrected or "cured" via systematic attempts to reduce or eliminate it altogether.

Clinically, examining stuttering within the medical model perspective helped to popularize the implementation of treatment approaches almost solely devoted to directing the speaker's focus toward modulating the overt characteristics of their stuttering (i.e., the aspects which can readily be seen and heard), features that best serve to give credence to the listener-oriented (i.e., standardized) definition of the condition, as they are often most salient to the listener's experience of it. The rationale for research grounded within the medical model typically asserts that clarifying the potential causes of stuttering can yield treatments that effectively lessen or stop the overt behaviors, thus leading to diminished adverse impacts on PWS. This line of research has been fruitful in that it has begun to shed light on the neurological (Chow, Garnett, Etchell, & Ho Ming, 2018; Etchell, Civier, Ballard, & Sowman, 2018; Garnett, Chow, & Chang, 2019; Neef, Anwander, & Friederici 2015) and genetic (Frigerio-Domingues & Drayna, 2017; Kollbrunner, Wedell, Zimmerman, & Seifert, 2014) underpinnings of stuttering, but these findings have not yet directly influenced stuttering treatment.

Although a diverse range of treatment approaches have been devised and clinically

tested throughout the years, there is no single approach that has been shown to be universally effective or beneficial for PWS (Baxter, Johnson, Blank, Cantrell, Brumfitt, Enderby, & Goyder, 2015; Blomgren, 2010; Douglass, Constantino, Alvarado, Verrastro, & Smith, 2019; Johnson, Baxter, Blank, Cantrell, Brumfitt, Enderby, & Goyder, 2016) and not one has been shown to "cure" stuttering. However, the commonalities across different approaches (Bloodstein & Ratner, 2008; Zebrowski & Arenas, 2011), along with insights from qualitative studies that parsed out factors PWS have found to be most conducive in promoting successful treatment outcomes (Boyle, 2013; Plexico, Manning, & DiLollo, 2005; Plexico, Manning, & DiLollo, 2010), have revealed something of paramount importance: positive change is frequently associated with opportunities for open discussion and reframing of the subjective experiences (e.g., thoughts, feelings, and emotions) surrounding stuttering that are encountered by the speakers themselves (i.e., PWS) (Beilby, Byrnes, & Yaruss, 2012). Additionally, the process of therapeutic change is best promoted through a strong client-clinician relationship, which can be further strengthened by clinicians' active efforts to empathize with their clients and develop an understanding for how they experience and relate with their stuttering (Kollbrunner, Wedell, Zimmerman, & Seifert, 2014; Quesal, 2010). Therefore, a recent, gradual departure from drawing exclusive attention toward the examination and modification of overt stuttering behaviors has prompted a resurgence in the implementation of holistic approaches to treatment, as well as a burgeoning in research that seeks to explore the subjective aspects of the phenomenon.

At present, qualitative research methodologies continue to spearhead significant advancements in contemporary clinical models of stuttering, as these have corroborated the importance of exploring the condition from a multifactorial viewpoint and tailoring courses

of treatment on a case-by-case basis. The population of PWS proves to be remarkably diverse, encompassing a gamut of age groups, cultural backgrounds, and ethnicities (Boyle, 2017). To properly acknowledge the breadth of individual variation found within this demographic, current research and practice-based evidence underscores the significance of treating the whole person. This framing of stuttering treatment involves actively extending beyond the examination and cataloguing of the overt characteristics of stuttering to promote an authentic, open dialogue surrounding an individual's unique thoughts, beliefs, and experiences with stuttering (Constantino, 2018). Several studies conducted by Plexico and colleagues attest to the importance of facilitating plentiful opportunities for self-reflection (Plexico, Erath, Shores, & Burrus, 2019; Plexico, Manning, & Levitt, 2010a, 2010b). This allows for the development of meaningful, person-centered goals via clinical frameworks of stuttering that are rooted in the perspective of the experiencer rather than within a conceptual, externalized vantage point.

In recent years, the fervor with which investigators have sought to describe stuttering from a first-person point of view has popularized the application of phenomenological research methodologies. This variant of qualitative inquiry has allowed researchers to gain an enhanced understanding of the many ways that PWS interact with, navigate, and describe a diverse range of both objective and subjective manifestations of stuttering (Beilby, Byrnes, Meagher, & Yaruss, 2013; Bricker-Katz, Lincoln, & Cumming, 2013; Constantino, Manning, & Nordstrom, 2017; Hughes, Gabel, Irani, & Schlagheck, 2010; Jackson, Yaruss, Quesal, Terranova, & Whalen, 2015; Plexico & Burrus, 2012; Tichenor, Leslie, Shaiman, & Yaruss, 2017; Tichenor & Yaruss, 2018, 2019a, 2019b). A prime example of how phenomenology can bring speaker-oriented insights to light comes from a series of investigations conducted

by Tichenor and Yaruss (2018, 2019a, 2019b), which pursued the operationalization of a definition of stuttering created by PWS. Through these endeavors, a crucial finding emerged: the subjective experience of stuttering was most frequently characterized as a feeling of "being stuck," or a "loss of control," while overt stuttering behaviors (e.g., silent blocks, sound prolongations) were largely classed as responses secondary to the sensations previously described. Furthermore, these studies revealed that some of the most salient experiences of stuttering (e.g., speaker's thoughts, beliefs and covert actions) are seldom readily observable to listeners.

In stark contrast, listener-oriented characterizations of stuttering not only depict the overt behaviors as the primary manifestations of stuttering, but also denote that these are the most noteworthy aspects of the experience of stuttering for both speakers and interlocutors. Without a doubt, the speaker and listener-oriented conceptualizations of the condition are rife with disparities. Thus, current initiatives to acknowledge the speaker's perspective have compelled speech-language pathologists (SLPs) to work past addressing the purely superficial presentations of stuttering. As such, therapeutic approaches have continued to evolve to integrate an exploration of the breadth of internal responses to anticipation that PWS may engage in (Jackson, Gerlach, Rodgers, & Zebrowski, 2018).

To expand upon this line of inquiry, Jackson et al., (2015) applied a phenomenological approach to investigate the pervasiveness of anticipation in speakers' experiences of stuttering, as well as how they responded to it. This study yielded two particularly noteworthy findings: that all participants anticipated stuttering "at least some of the time," and that avoidance strategies were common – with the latter gaining notoriety as a significant hindrance to good QoL for many PWS (Connery, McCurtin, & Robinson, 2019).

The extent to which PWS report encounters with anticipation further established its prominence at the core of numerous individuals' experiences of stuttering. Additionally, the universality of utilizing avoidance to navigate anticipation urged researchers to identify additional factors that served to either advance or impede therapeutic change for PWS, according to their experiences (Jackson, Rodgers, & Rodgers, 2019).

Collectively, phenomenological investigations of stuttering are of the utmost importance, as they impart essential insights into the lived experiences of PWS. Speakers' perspectives can serve as invaluable resources in the creation of approaches to stuttering treatment and management that are tailored to the individual. Clarifying the phenomenon of stuttering in this manner will better equip PWS and clinicians alike to work toward positive change (Floyd, Zebrowski, & Flamme, 2007). Given the complex nature of stuttering and the abundance of experiences that can be associated with it, further phenomenological research is warranted. Thus, the purpose of the current study is to explore two of the most ubiquitous facets of stuttering encountered by PWS: contextual variability and anticipation.

Exploring the Phenomenon of Contextual Variability

A defining characteristic of stuttering that distinguishes it from other speech impairments is its inconsistent presentation across different timeframes and situations (hereafter termed as *contextual variability*). Here, the conceptualization of *context* is not confined to its physical, externalized definition (i.e., surface characteristics of a speaking context); rather, it encompasses several factors that interact with the speaker as they engage in communicative acts: situations (e.g., communication contexts), timescales (e.g., moment-to-moment, day-to-day, week-to-week, etc.), and internal states (e.g., physical and/or emotional well-being, state of mind, overall sense of wellness, etc.). Contextual variability,

then, yields a dynamic representation of the fluctuations that PWS can encounter with their stuttering which can better encapsulate the complexity of stuttering itself.

Landmark studies of stuttering variability conducted in the 1930s by Johnson and colleagues primarily sought to take an extensive inventory of the frequency with which stuttering emerged across contexts (Johnson & Ainsworth, 1938; Johnson & Inness, 1939; Johnson & Knott, 1937; Johnson & Millsapps, 1937; Johnson & Rosen, 1937; Johnson & Sinn, 1937; Johnson & Solomon, 1937; Knott, Johnson, & Webster, 1937). Through these works, it was found that the occurrence of stuttering could be markedly influenced by experimentally manipulated cues associated with previous moments of stuttering. For instance, in Johnson and Knott (1937), the words on which participants stuttered as they engaged in successive readings remained relatively consistent across trials. Additionally, words adjacent to previously stuttered words were stuttered at an increased rate when the stuttered words were blotted out and removed from subsequent readings of the same text (Johnson & Millsapps, 1937). This phenomenon, coined as the *adjacency effect*, demonstrated that the blotted out, previously stuttered words served as cues that increased the likelihood of future stuttering.

In addition, findings from these early investigations suggested that moments of stuttering could be modulated by the nature of the social context in which PWS found themselves. Essentially, it was discovered that while stuttering could be nearly absent in some situations (e.g., singing, talking to oneself), it was capable of arising more frequently in others (e.g., conversing over the telephone). Stuttering variability was also found to be influenced by various linguistic parameters such as word class, word length, and grammatical position (Brown, 1937, 1945; Brown & Moren, 1942). Thus, early research on the

phenomenon concurred that moments of stuttering did not occur at random, but rather as a function of several factors that had a significant influence on both when and where stuttering could occur for individuals. These revelations, in combination with consistent observations across studies that PWS were generally able to predict (i.e., anticipate) moments of stuttering with a high percentage of accuracy, gave rise to the Anticipatory Struggle Hypothesis (ASH), and the prevailing view that stuttering was a response to the anticipation of stuttering (Bloodstein, 1958). Further discussion and elaboration on anticipation as well as the ASH can be found in a later section of this paper.

The early investigations described above provided accounts of the variability of stuttering based on listener-oriented observations of overt stuttering. Although this line of research postulated an interplay between both external and internal factors (i.e., cognitive thought processes) that contributed to fluctuations of stuttering across situations, most studies founded upon this inference did not explicitly investigate the subjective experiences of PWS. For instance, Sheehan, Hadley, & Gould (1967) studied the influence that speaking to individuals with a presumably authoritative status (e.g., persons wearing a suit or uniform) had on the frequency of stuttering for PWS. It was discovered that communication interactions with a person of rank elicited more instances of stuttering than did situations with individuals with seemingly less authority. In light of this finding, the researchers inferred that interlocutors with an elevated status increased the social pressures typically embedded within speaking contexts, effectively bringing about more moments of stuttering due to speakers' increased struggles to prevent stuttering from occurring. Though this line of reasoning may be accurate from a conceptual standpoint, it remains pure conjecture in the absence of direct knowledge surrounding speakers' firsthand experiences.

Unlike the majority of the early research on stuttering variability, Bloodstein (1950) sought to explicitly address subjective aspects of the phenomenon by asking participants to review an itemized list of 115 speaking situations and speculate on the likelihood that stuttering would emerge across each. Although the data from this investigation was largely derived from survey scale ratings, Bloodstein also interviewed a subset of the respondents, enriching questionnaire findings through explorations of participants' experiences. The results included a series of interview excerpts which provided a glimpse into the personal experiences and beliefs of PWS surrounding the variability of stuttering. Bloodstein demarcated several broad categories of internal factors found to have exerted a significant influence on the variable nature of stuttering. Interestingly, the interview discussions revolved around contexts in which PWS had either seldom stuttered or had never experienced stuttering at all, rather than on those that tended to increase stuttering. Among the most frequently mentioned situations were those characterized by reduced propositionality (e.g., talking to a pet), minimal negative listener reactions to stuttering (e.g., during casual conversation with a close friend), and changes in speech patterns (e.g., imitating another person's way of speaking).

Bloodstein's study proved to be a pivotal elaboration on previous investigations of variability, as the integration of experiential data yielded insights that continue to exert a profound influence on present-day perspectives of stuttering. Nevertheless, in line with reporting practices during the era within which this study was published, the descriptions provided regarding participant demographics were rudimentary at best. What is well known, however, is that the participant population was almost entirely comprised of males (specifically, 188 males and 16 females). In addition, all of the interview participants were

concurrently receiving services at the University of Iowa speech clinic, which, given the institution's strong inclinations toward the premise of the ASH at the time, may have served to influence how they viewed and experienced their stuttering. Hence, additional qualitative investigations of variability that yield speaker insights through more rigorous methods data collection and analysis are duly warranted.

The demand for comprehensive investigations of the lived experiences of this phenomenon are well justified. Considerable advancements in qualitative interviewing practices (e.g., prompting all researchers to engage in acts of self-assessment to delineate pre-conceived notions regarding the topics of investigation), have undoubtedly increased the rigor with which these sorts of studies are executed (Sanders, 2003; Tong, Sainsbury, & Craig, 2007). Furthermore, the implementation of semi-structured interview frameworks helps keep premeditated questions and interviewer-based descriptions of the subjects of inquiry to a minimum. Instead, investigators are encouraged to pose follow-up questions based upon what participants mention, and discuss things in the words of their interviewees whenever possible (Bevan, 2014; Creswell & Poth, 2016). In combination, these procedures help safeguard against investigators' perspectives being imposed on study participants, ensuring fresh, experiencer-based interpretations of the phenomena being explored.

Although contextual variability has been studied for decades, listener-oriented characterizations (i.e., sparse documentation of its subjective features) have perpetuated oversimplified descriptions that do not fully encompass how PWS interpret and experience it themselves. Hence, it has generally remained poorly understood both by PWS and people who do not stutter alike (Arenas, 2017; Boyle & Blood, 2015). A recent investigation by Constantino, Leslie, Quesal, & Yaruss (2016) quantified the extent of day-to-day stuttering

variability within and across PWS and found that the degree of variability was positively correlated with adverse QoL outcomes. This particular study, however, was not specifically designed to investigate the subjective underpinnings of stuttering variability (e.g., speakers' thoughts, beliefs, and emotions surrounding the phenomenon) or the possible relationships that existed between these experiences and negatively impacted QoL in PWS.

Through the acknowledgment that there are subjective nuances in the ways that contextual variability can arise and potentially impact an individual's quality of life, the current study conducted a systematic exploration of the experience from a phenomenological perspective to identify unique and more universally encountered aspects of its occurrence. Although the subjective undercurrents of these fluctuations are very much obscured from the listener's view, they are of great significance to the individuals who encounter them. As such, they are imperative to address within and beyond the confines of therapy sessions.

Exploring the Phenomenon of Anticipation

An additional phenomenon often underscored as a significant facet of the experience of stuttering is that of anticipation; that is, the sense that one is going to stutter just prior to the initiation of speech production. Much like variability, anticipation was one of the primary areas of interest for early researchers of stuttering. A powerful demonstration of the pervasiveness of anticipation came from Knott, Johnson and Webster (1937) who found that 94 percent of the disfluencies encountered by participants were anticipated prior to their emergence during a reading task, as measured by the participants' visual signals (e.g., hand-raising) prior to producing the words on which they anticipated stuttering. Several replication studies showed semblable findings across larger groups of PWS, with the results consistently indicating that no less than 85 percent of disfluencies were predicted prior to saying

anticipated words (for a detailed review, see Bloodstein & Ratner, 2008). These investigations examining the extent to which individuals could signal predicted moments of stuttering highlighted the ability of PWS to engage in the online detection of imminent moments of stuttering.

Additional research explored the ability of PWS to identify the words that they anticipated stuttering on far before their attempts to actually produce the words themselves. For instance, Martin and Haroldson (1967) asked participants to assign an *expectancy score* to every word contained within a reading passage according to the following 5-point scale: "definitely will stutter" (5), "probably will stutter" (4) , "might stutter" (3), "probably won't stutter" (2), and "definitely won't stutter" (1). After the participants had assigned scores to each word and a brief period of time had elapsed, they were then asked to read the passage several times in a row. The results showcased a strong positive correlation between the ratings of stuttering anticipation and the frequency of actual stuttering that occurred. Furthermore, Johnson and Solomon (1937) demonstrated that anticipation can operate on a long-term timescale, by first having PWS mark all of the words within a reading passage on which they expected to stutter, and then having them read an unmarked passage of the same text after a minimum of 24 hours had elapsed. When the study participants finally engaged in the task of reading through the unmarked passage, approximately 50 percent of the words that they had previously marked were stuttered, while a mere 10 percent of the unmarked words yielded moments of stuttering.

Following a series of investigations which catalogued the predictive nature of stuttering anticipation on overt stuttering behaviors, a marked lull in research on the phenomenon began in the 1960s. Within the past decade, however, interest in anticipation

has been revived, bringing with it an increase of experimental studies, qualitative research, and theoretical models that have yielded dynamic, modern-day insights into the nature of the experience (Arenas, 2012, 2017; Arenas & Zebrowski, 2017; Garcia-Barrera & Davidow, 2015; Jackson et al., 2015; Jackson et al., 2019). Notably, a recent theoretical model of the phenomenon developed by Garcia-Barrera and Davidow (2015) hypothesizes that the acquisition of stuttering anticipation is linked to one's experience with stuttering over time. This learning account of stuttering anticipation has been supported by research showing that young children closer to the age of stuttering onset are not able to anticipate stuttering to nearly the same degree as older children or adults who stutter (Bloodstein, 1960).

Additional evidence suggesting that word-level anticipation may be learned and strengthened by stuttering frequency was demonstrated in Arenas and Zebrowski (2017). In this study, it was found that PWS who experienced overt stuttering more frequently showed greater overall consistency when assigning initial *stuttering anticipation ratings* to fifty words and asked to engage in the same task two weeks later. Another component of this investigation entailed a preliminary exploration of subjective aspects of stuttering anticipation through a series of sliding scale questions within the Anticipation of Stuttering Questionnaire (ASQ). This questionnaire captured some of the thoughts and beliefs that participants had regarding anticipation, which corroborated previous research on the pervasiveness of stuttering anticipation. In essence, it revealed the sheer prominence of anticipation that can be ingrained within the stuttering experience. Not only did all of the participants assert that they occasionally anticipated stuttering, but they also noted that the extent to which they anticipated stuttering varied considerably with respect to who they were speaking to, and the nature of the situations that they found themselves in. Furthermore, a

robust positive correlation was found between the severity of a person's stuttering and the degree to which they believed that anticipation increased the likelihood that stuttering would occur. In light of these discoveries, interviewing participants to ascertain their personal experiences with anticipation would have facilitated the exploration of potential interactions among factors of interest (e.g., stuttering severity, the variability of anticipation across contexts), while contextualizing scale ratings and correlational analyses with speaker-oriented insights. In-depth qualitative interviews are regarded as a fundamental component of contemporary studies of the phenomenon, as these can build upon objective observations with detailed accounts of lived experiences.

Jackson et al., (2015) helped to advance the study of anticipation from a qualitative perspective, providing a more comprehensive understanding of the variety of ways in which individuals can respond to anticipation (e.g., via their cognitive, affective, and/or behavioral states). It was found that PWS navigate this experience in various ways, from using the sensation as a cue to confront potential moments of stuttering head-on, to utilizing it as a prompt to engage in avoidance strategies (e.g., circumlocutions). A limitation of the study was that participants' descriptions of their responses to anticipation were constrained to a written questionnaire format. This increased interest in the pursuit of opportunities to further expand upon speakers' experiences via alternative means of data collection (e.g., via one-one-one interviews) to facilitate rich, firsthand accounts of the phenomenon in future investigations.

A more recent qualitative study conducted by Tichenor and Yaruss (2019b) yielded substantive speaker-oriented insights on anticipation when they asked PWS to describe and define stuttering relative to their lived experiences. Across hundreds of participant responses,

anticipation was classed as an aspect of stuttering central to their experiences, often manifesting as moments of stuttering characterized by engagement in avoidance (e.g., choosing not to speak, withdrawal from communication contexts). Thus, speaker conceptualizations of anticipation again diverged from historical (i.e., listener-oriented) interpretations. Here, anticipation was broadly depicted as ruminations on stuttering, largely depicted as a generalized sense of dread toward future speaking situations that developed over extended periods of time.

These insights demand additional qualitative investigations to further elaborate on subjective elements of the experience and promote an increased understanding of it among clinicians and researchers alike. The Tichenor and Yaruss (2019b) investigation showcased the profuse ambiguity surrounding the term *anticipation*, likely perpetuated by marked discrepancies between its listener and speaker-oriented characterizations. For instance, though Wingate (1975) asserted that anticipation could be both short-term and long-term in duration, the vagueness which continues to surround this topic has allowed for potentially impactful internal experiences of stuttering (e.g. long-term anticipation) to go on relatively unaddressed in clinical practice. Delving further into how this phenomenon is experienced by PWS can clarify the many forms (e.g., emotional states, cognitive thought processes, physiological responses) and timescales that it can take on, effectively helping to remedy a potential disservice to those seeking therapy.

As yet another phenomenon of stuttering well hidden from the view of the listener, anticipation further attests to the value of phenomenological research, in that it facilitates a refined representation of an experience that, though commonly reported by PWS, is largely characterized by its covert manifestations within the speaker. At present, the anticipation of

stuttering has not been defined via the distinctions that PWS have made with regard to their experiences, but rather, through extensive attempts to quantify overt response behaviors. The current investigation, then, will add depth to current conceptualizations of anticipation by working to document and describe speakers' encounters with the phenomenon.

Exploring the Interconnectedness of Contextual Variability and Anticipation

Historically, investigations of potential liaisons between contextual variability and anticipation were conducted within some variant of the Anticipatory Struggle Hypothesis (ASH), the essence of which is captured by Wendell Johnson's enduring adage: "stuttering is everything we do trying not to stutter." The ASH attributes a causal role to anticipation in the occurrence of stuttering. In essence, it hypothesizes that the anticipation of stuttering prompts PWS to alter their speech production through a series of aberrant muscle activation patterns and fragmentations of planned utterances which, in combination, yield overt stuttering behaviors (Bloodstein, 1958; 1975). As previously discussed, a series of research studies that found strong relationships between anticipation and moments of overt stuttering created the foundational basis of this hypothesis. It is crucial to acknowledge, however, that the relationship between anticipation and stuttering is far from linear. In other words, not all instances of stuttering are anticipated, and not all anticipated words are stuttered. Wingate (1975) posited that no causal relationship existed between anticipation and stuttering, arguing that the ability to anticipate moments of stuttering prior to their occurrence was representative of an awareness that something had already gone awry within the speech planning process. Other investigators have theorized that anticipation leads to emotional (Brutten & Shoemaker, 1967) or cognitive (Arenas, 2017) reactions that do not yield a causal

effect on stuttering, but rather, negatively interact with (i.e., impede) the speech production process, potentially increasing the likelihood that stuttering will occur.

As heated debates on whether anticipation is capable of causing or increasing the likelihood of stuttering continue, the ASH has remained a dominant narrative in both theoretical conceptualizations of stuttering and clinical practice guidelines surrounding its treatment. The unwavering prominence of this idea across academic and clinical pursuits surrounding stuttering is due in part to the simple, intuitive way in which it accounts for the variable nature of stuttering. In general, research concerning the variability of stuttering demonstrates that it tends to undergo fluctuations in a correlated manner, aligning with presumed corresponding changes in anticipation (Bloodstein, 1950, 1960; Bloodstein & Ratner, 2008; Johnson & Solomon, 1937; Knott et al., 1937; Martin & Haroldson, 1967). These findings are grounded in the assumption that anticipation increases within contexts entailing greater negative consequences for stuttering (e.g., increased risk of listener judgment imposed on the speaker, adverse impact on the mental and emotional states of the speaker). Currently, there is some research evidence affirming that the anticipation of stuttering fluctuates relative to the nature of the social context in which a speaker may find themselves (Arenas, 2017), but an exhaustive qualitative study aimed at understanding speaker's experiences of anticipation and its variation across contexts has not yet been conducted. To further enrich academic and clinical perspectives surrounding these phenomena, exploring the beliefs that PWS have regarding the intersection between anticipation and stuttering, or of their explanations of how such a relationship may exist, is a worthwhile endeavor.

Although contextual variability and anticipation are pervasive aspects of stuttering, little is known about these phenomena from the perspectives of PWS. Findings derived from the lived experiences and beliefs of PWS would provide further insights on the complex range of factors that can modulate both anticipation and stuttering variability, and facilitate discussions surrounding insiders' takes on the phenomena. Thus, to further delineate the internal constituents of stuttering encountered by PWS, the present investigation worked toward reconfiguring current descriptions of these toward an experiencer-oriented standpoint.

Investigative Aims

Aligning with recent initiatives to describe and validate speaker-oriented definitions and experiences of stuttering, the aims of the current study were to investigate the subjective elements of the contextual variability and anticipation of stuttering via rigorous explorations of the phenomena. Through in-depth qualitative interviews with ten adults who stutter, we sought to gain a refined understanding of the following: 1) The experiences of PWS with the unpredictable and/or variable nature of their stuttering, as well as their beliefs surrounding potential contributors to its variability, 2) The experiences of PWS with anticipation, and whether they believe that anticipation has a role in the variability of their stuttering across timeframes and situations, and 3) The ways in which experiences of contextual variability and/or the anticipation of stuttering may impact levels of self-acceptance, quality of life, and life satisfaction of PWS.

Chapter 2

Methodology

Research Team and Study Participants

Investigator Profiles

The research team consisted of two investigators who planned and executed all aspects of the current study. The first investigator and author of this thesis was Amanda Ortiz-Alvarez, a graduate student enrolled in the second year of her speech-language pathology program at the University of New Mexico. At the time this study was conducted, the extent of the first investigator's experiences with stuttering consisted of the completion of one graduate course on stuttering, and approximately two months of clinical work with adults who stutter at the UNM Speech Language and Hearing Center (UNMSLHC). In addition, the first investigator had attended four meetings of the Albuquerque Chapter of the National Stuttering Association (NSA) Stuttering Support Group and participated in the Graduate Student Training Program (GTSP) at the 2019 FRIENDS Annual Convention, where she assisted in the facilitation of several workshops for children who stutter. As a person who does not stutter, the first investigator did not have any firsthand experiences with stuttering. As such, she entered the investigation with limited preconceptions surrounding the phenomena of inquiry.

The second investigator, Dr. Richard Arenas, was an Associate Professor at the University of New Mexico who, prior to the inception of this study, had been conducting stuttering research for over a decade. He has published peer-reviewed papers and presented at national conferences and conventions (e.g., the National Stuttering Association Annual Conference, the American Speech Language and Hearing Association Annual Convention,

etc.) on the topics of contextual variability and anticipation. As a PWS himself, Dr. Arenas has had extensive personal and professional interactions with other PWS. As the leader of the Albuquerque Chapter of the NSA Stuttering Support Group, the second investigator had actively engaged in the cultivation of connections with PWS within and around the state of New Mexico. His previous research on stuttering anticipation and variability, in combination with his own firsthand experiences of stuttering, provided important insights which also posed threats of potential biases. As described within the data analysis procedures of this study, both investigators reflected upon their possible preconceptions and unique perspectives surrounding the phenomena of interest.

To prepare for her role as interviewer for this project, the first investigator read several texts (e.g., Moustakas, 1994; Seidman, 2006; Creswell & Poth 2016, etc.) to gain familiarity with phenomenological interviewing practices then conducted four practice phenomenological interviews with peers regarding their experiences as graduate students and novice clinicians. She then recorded, conducted, and transcribed a full-length phenomenological interview with the second investigator about his experiences with stuttering. The investigators reviewed the audio recording to identify the first investigators' strengths and potential areas of improvement for future interviews. These training activities ensured that phenomenological interviewing techniques would be adhered to by the first investigator throughout all participant interviews.

Researcher-Participant Relationships

Apart from initial interactions during several local meetings of the NSA Stuttering Support Group and the 2019 FRIENDS Annual Convention, the first investigator had no previous relationships with the study participants. Though the second investigator knew

several of the study participants through the local NSA Stuttering Support Group, he did not know four of the remote (i.e., nonlocal) participants interviewed via videoconferencing. However, since the second investigator was not involved in the interview process, the threat of potential biases remained limited. Aside from some general discussions about stuttering during local support group meetings, which occasionally entailed brief encounters with stuttering anticipation and variability, the participants and researchers did not have in-depth discussions about these phenomena prior to the interview phase of the project.

Participant Profiles

The protocol of the current study was approved by the University of New Mexico Institutional Review Board (IRB). Participants consisted of 10 adults who stutter (five female and five male), ranging in age from 19 to 76 years. Participants were recruited via distribution of IRB-approved flyers at monthly meetings of the Albuquerque Chapter of the National Stuttering Association (NSA) Stuttering Support Group, and at the 2019 FRIENDS: The National Association of Young People Who Stutter Annual Convention, as well as through word of mouth and personal contacts of the authors. Following the completion of these initial recruitment procedures, the investigators verified that all participants met the following inclusionary criteria: a) were 18 years of age or older; b) self-identified as a person who stutters (PWS); c) presented with an age of stuttering onset before 8 years of age (i.e., affirming that their stuttering was developmental, rather than neurogenic in nature); and d) were proficient speakers of English. Additional descriptive information regarding study participants is presented in Table 1.

Prior to the initiation of data collection, all participants gave informed consent. Consent forms explicitly outlined the aims and procedures of the current investigation. Each participant received a $30 retail gift card for their participation.

Data Collection

Questionnaire Overview

The Demographic and History Form (Appendix A) served to provide an overview of participants' general case history, experiences with stuttering therapy, engagement in support groups, and self-perceived stuttering severity rating. The participants reported that, aside from stuttering, they had no known additional speech, language, and/or hearing impairments. All of the participants additionally indicated that they had received stuttering therapy at some point in their lives, and three individuals were actively attending sessions at the time that this study was conducted. Each of the participants also reported having experience with support group environments and/or local, regional, and national gatherings of PWS (e.g., National Stuttering Association Annual Conferences, FRIENDS Annual Conventions, etc.). Participants' self-perceived stuttering severity ratings were gauged utilizing a 5-point Likert scale (i.e., with 1 being "very mild," 2 being "mild," 3 being "moderate," 4 being "severe," and 5 being "very severe"), with responses ranging from "mild" (2) to "severe" (4). See Table 1 for a summary of each participant's self-perceived "severity" rating.

Table 1

Participant Demographic Data

#	Age	Sex	Ethnicity	History of Stuttering Treatment	Support Group Experience	Self-Perceived Stuttering Severity	OASES Overall Impact Score	Agreement w/Experience Summary
P1	19	M	Hispanic/Filipino	yes	yes	mild (2)	mild (1.32)	strongly agree (7)
P2	20	F	White	yes	yes	severe (4)	moderate (2.77)	strongly agree (7)
P3	31	F	White	yes	yes	moderate (3)	moderate (2.35)	agree (6)
P4	21	F	White	yes	yes	moderate (3)	moderate-severe (3.16)	neutral (4)
P5	24	F	Hispanic	yes	yes	moderate (3)	moderate-severe (3.47)	strongly agree (7)
P6	76	M	White	yes	yes	mild (2)	mild-moderate (1.5)	strongly agree (7)
P7	35	M	White	yes	yes	moderate (3)	moderate (2.55)	agree (6)
P8	26	M	White	yes	yes	mild (2)	mild (1.48)	strongly agree (7)
P9	30	M	White	yes	yes	moderate (3)	moderate-severe (3.23)	strongly agree (7)
P10	35	F	White	yes	yes	moderate (3)	mild-moderate (2.14)	strongly agree (7)

To assess general life satisfaction and level of acceptance toward their stuttering, participants completed the Stuttering Self-Acceptance Scale (SSAS) (De Nardo, Gabel, Tetnowski, & Swartz, 2016) and the Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985). Throughout the SSAS, participants engaged in a self-assessment of attitudes that they had toward their stuttering (e.g., via questions such as “A person who stutters is no different from anyone else,”) using a 5-point Likert scale (i.e., with 1 being “strongly disagree, 2 being “disagree,” 3 being “neutral,” 2 being “agree,” and 1 being “strongly agree,”) with each questionnaire item. Within the SWLS, participants were asked to respond to a variety of questions to reflect upon their levels of content with their lives thus far (e.g., “If I could live my life over, I would change almost nothing,”) using a 7-point Likert scale (i.e., with 1 being “strongly disagree,” 2 being “disagree,” 3 being “slightly disagree,” 4 being “neutral,” 5 being “slightly agree,” 6 being “agree,” and 7 being “strongly

agree,") across all items. Additional details regarding the SSAS and SWLS can be found in Appendices B and C, respectively.

In addition, participants' completion of the Overall Assessment of the Speaker's Experience of Stuttering for Adults (OASES-A) (Yaruss & Quesal, 2016) facilitated an exploration of the potential impact that stuttering has on several aspects of their quality of life. Using a series of 5-point Likert scales (e.g., with 1 being "never," 2 being "rarely," 3 being "sometimes," 4 being "often," and 5 being "always,") across all questionnaire items, participants' responses provided broad overviews of several dimensions of their experiences. These included: general knowledge surrounding stuttering, emotions and reactions toward their stuttering, experiences with stuttering therapy, how they navigate through a diverse range of communication situations (e.g., talking under time constraints, giving presentations), challenges encountered across various social contexts (e.g., at home, in the workplace) and extent to which they engage in avoidance behaviors in daily scenarios (e.g., ordering food). In combination, the questionnaire answers yielded individualized *Impact Scores* for each participant, a summary of which can be found in Table 1.

The Anticipation of Stuttering Questionnaire (ASQ) (Arenas & Zebrowski, 2017) was distributed to all participants to gain preliminary insights on the extent to which they experienced stuttering anticipation across various contexts (e.g., on specific sounds/words, with specific people, or in certain situations), as well as their beliefs regarding whether or not the anticipation of stuttering could serve to increase its likelihood. Participants recorded each of their responses on a 5-point Likert scale (i.e., with 1 being "strongly disagree," 2 being "disagree," 3 being "neutral," 4 being "agree," and 5 being "strongly agree,") across all items. For further information on the topics surrounding anticipation that are reviewed in the

ASQ, refer to Appendix D. Completion of the aforementioned questionnaire forms by all participants allowed the investigators to commence the interview phase of the project.

Interview Procedures

Investigative Framework

The first investigator conducted one-on-one interviews in-person with all local participants, and via a secure videoconferencing platform (i.e., Zoom) with all remote participants. The qualitative interviewing procedures that were implemented across all interview sessions were modeled after those outlined in Tichenor and Yaruss (2018) and Bevan (2014), which were grounded within a phenomenological approach. This interview methodology was utilized to acquire exhaustive descriptions of subjective experiences surrounding the phenomena of interest (i.e., the contextual variability and anticipation of stuttering) that originated solely from the perspectives of the experiencers (i.e., PWS) themselves. The broad structure of each participant interview was encompassed within the following three planned prompts, which the investigators created in alignment with the investigative aims of the study: 1) Describe your experiences with the variability of your stuttering; 2) Describe your experiences with stuttering anticipation; and 3) Describe how the variability of your stuttering and/or stuttering anticipation have, or have not, impacted your quality of life.

The three-tiered phenomenological interview approach outlined in Bevan (2014) was implemented by the first investigator as she posed both pre-determined and follow-up questions to each of the participants. In the first phase, *Contextualization of the Phenomenon,* participants placed the phenomena of inquiry within the context of their own unique experiences, providing preliminary descriptions of the timeframes and situations through

which they have encountered them in their lives. Within the second phase of Bevan's approach, known as *Apprehending the Phenomenon,* the first investigator engaged in a collaborative process with each of the participants through a series of clarifying prompts using the participants' own language (e.g., descriptions of their experiences) to facilitate a mutual understanding of the nature of the phenomena of inquiry rooted within the participants' vantage points. Throughout the third phase, *Clarifying the Phenomenon,* the first investigator explored additional contexts in which participants had salient encounters with stuttering contextual variability or anticipation, via planned and clarifying prompts.

To further ascertain a rich understanding of participants' experiences during the interviews while working to reduce interviewer bias, the first investigator took extensive field notes to help identify key words and concepts to integrate within follow-up questions. In this way, requests of elaboration were crafted exclusively with terminology and descriptions that was utilized by the participants. In some cases, however, the first investigator posed explicit prompts to the participants regarding their thoughts and beliefs via predetermined questions, to facilitate discussion surrounding additional topics of interest (e.g., possible interactions between the anticipation and contextual variability of their stuttering, contexts in which they found that their stuttering occurred to a lesser extent, and situations where they experienced complete fluency). The adherence to these interviewing practices provided participants with an abundance of opportunities to describe the anticipation and variability of stuttering across contexts on their own terms, extending beyond the objective, quantifiable characteristics of stuttering.

Capturing Interviews

Each of the participant interviews was video- and audio-recorded. All in-person

interviews were recorded with a video camera and supplemental audio equipment (i.e., a digital voice recorder and a desktop computer USB microphone recorder), while video conference interviews were recorded with screen capture and a portable audio recorder. The first set of participant interviews averaged 1hr and 39mins (range = 1hr and 15mins-2hrs and 27mins). After the first round of interviews, the first investigator followed up with all study participants to verify the accuracy and validity of extracted significant statements used to create participants' experience summaries. Further elaboration on significant statements and experience summaries can be found within the data analysis section of this paper. The first investigator then scheduled voluntary follow-up interviews with the participants, which took place within four months of the initial interviews either over the phone or via a videoconferencing session, at the participants' convenience. All of the participants opted to participate in follow-up interviews (mean length = 24mins; range = 13-53mins).

Data Analysis

Phenomenological Bracketing

Prior to conducting interviews, both investigators engaged in a process of self-reflection to increase the rigor of the interview and analysis process through the delineation of potential pre-suppositions surrounding the topics that were to be explored with the participants (Sanders, 2003). This self-reflective process is a fundamental step in phenomenological reduction or "bracketing," as it allows investigators to explicitly state their thoughts, beliefs, and encounters with the subject(s) of inquiry, yielding opportunities to acknowledge, and set aside, any pre-conceived notions that may result in biased initial (and subsequent) interpretations of participant data (Sanders, 2003). Thus, the investigators discussed their personal, professional, and clinical experiences with stuttering, involvement

in support groups and national conferences tailored to PWS, and general ideas they had regarding the phenomena of inquiry.

Data Coding

All data derived from participants' interview transcripts were coded by both of the investigators via qualitative analysis procedures to delineate unique, recurring, and overarching themes. Through this process, the resultant themes and subthemes that emerged from the interview data were placed within the context of participants' individual and shared experiences, to facilitate the process of drawing comparisons between points of similitude and divergence between participants' encounters of the phenomena of interest. To resolve disagreements regarding the nature of the themes and subthemes being identified, the investigators engaged in thorough discussions. In turn, these discussions yielded an additional series of self-reflections on the part of the investigators, allowing for the coding process to be documented in a thorough and consistent manner.

Interviews were analyzed via adaptations to a phenomenological method devised by Colaizzi (1978) which incorporated the principles of Husserlian (i.e., descriptive) phenomenology to facilitate the creation of *essential structures*, or exhaustive descriptions, of phenomena of interest engrained within experiencers' perspectives. The part-to-whole interpretive framework encapsulated by Colaizzi's approach facilitated the organization of participant responses into categories that encompassed broad and specific themes that emerged from the interview transcripts. The themes and subthemes found by the investigators were not determined a priori, rather, they were identified from the interview data. The analytical process of project data entailed several stages. In the first stage, modeled after Colaizzi's *Acquiring a Sense of Each Transcript* (1978), the first investigator set out to

gain an increased understanding of participants' experiences by reading through all interview transcripts and listening to all interview audio recordings in their entirety on two separate occasions. This allowed the first investigator to gain a general sense of participants' experiences. Throughout the entire analysis process, the first investigator kept an extensive written account of ideas and reactions that came to mind. This streamlined the reflective process and identification of potential preconceptions that could have otherwise yielded skewed interpretations of the project data.

During the second stage of analysis, running in parallel to Colaizzi's *Extracting Significant Statements* (1978), the first investigator read the transcripts three more times to begin delineating statements pertaining to participants' lived experiences of the contextual variability and anticipation of stuttering. The first investigator used a luminous pen to maintain thorough documentation of the significant statements that emerged across the transcripts. Next, the investigators chose two participant transcripts to extract significant statements from independently. Thereafter, the investigators engaged in an in-person collaborative review of their findings to establish mutual agreement with regard to the significant statements that they had identified on their own. From that point onward, the first investigator continued to catalog significant statements across all other interview transcripts independently, and logged all significant statements into a spreadsheet. Additionally, an abundance of unique (i.e., non-redundant) statements were recorded into a separate spreadsheet and tagged with a reference to the page and line number on which they occurred within their respective transcript. Through this process, a total of 320 significant statements were extracted for further analysis.

In the third stage, adapted from Colaizzi's *Formulation of Meanings* (1978), the investigators began to identify broad concepts that emerged from the process of manually coding participants' significant statements, allowing for their classification into categories. After this initial interpretation of the data and its meanings, all significant statements were combined into a single spreadsheet and sorted into four separate spreadsheets based on the broad theme category under which they fell. Prior to further engagement with the data, the investigators set aside time to acknowledge their pre-conceived notions surrounding the concepts that were being explored thus far in the analytical process. This was facilitated through a review of each investigators' field notes and written accounts concerning initial thoughts, feelings, and reactions that had come about during data analysis. These bracketing (i.e., reflective) procedures allowed the investigators to achieve greater reflexivity, along with a shared understanding of the phenomena being investigated. Next, the investigators independently extracted *formulated meanings* (Colaizzi, 1978), participant descriptions of the broad concepts that had emerged from the data (e.g., general statements on stuttering, variability, and/or anticipation) which were used to set forth initial themes and subthemes associated with these experiences.

Similar to Colaizzi's *Organizing Formulated Meanings into Clusters of Themes* (1978), the next stage of data analysis entailed thorough discussion on the initial themes identified by the investigators, through both independent and collaborative manual coding procedures. As such, agreement regarding initial themes was established, allowing for these to be further broken down into a series of distinctive subthemes, utilizing the methods previously described and implemented in earlier stages of the analytical process. Once the investigators felt that these additional recurrent themes captured participants' lived

experiences of stuttering, they engaged in procedures which mirrored those outlined in Colaizzi's *Describing the Fundamental Structure of the Phenomenon* (1978), creating finalized interview excerpt compilations (hereafter referred to as *experience summaries*) consisting of participants' significant statements. The participants were then asked to review their respective experience summaries and comment on the extent to which they felt these represented their experiences as desired. Finally, running in strong parallel to Colaizzi's *Returning to the Participants* (1978), all ten participants engaged in follow-up interviews with the first investigator to discuss additional encounters with the phenomena of interest. The additional 130 significant statements derived from these supplemental interviews led to the analysis of a total of 450 significant statements which served to finalize the themes and subtheme categories established by the investigators.

Reliability and Validity

A series of measures were taken to ensure the reliability of all transcripts that were derived from participant interviews. In addition to the preliminary transcriptions completed by the first investigator, each interview was then re-transcribed by an undergraduate or graduate student volunteer who was randomly assigned an interview audio recording to transcribe. After comparing the two transcriptions, discrepancies were reconciled by the investigators via discussion and re-evaluation of the interview audio recordings. As discussed above, to further establish reliability and validity of interview transcriptions, the participants were provided with an encrypted link to review experience summaries and asked to rate and comment on the extent that they agree the selected interview excerpts accurately represented their experiences with stuttering. The agreement ratings were recorded using a 7-point Likert scale (i.e., with 1 being strongly disagree, 2 being "disagree," 3 being "slightly disagree," 4

being “neutral,” 5 being “slightly agree,” 6 being “agree,” and 7 being “strongly agree,”). In addition to the agreement ratings and written comments about the experience summaries provided by the participants, the follow-up interviews facilitated additional opportunities for clarification and elaboration upon novel topics, as well as on the topics previously explored within the first round of interviews.

Chapter 3

Results

Demographic History Form and Questionnaires

Experiences with Stuttering Therapy and Support Groups

Within a section of the Demographic and History Form (Appendix A), participants were asked what they had found to be most helpful with regard to their experiences in stuttering therapy. Many individuals discussed how they reaped the most benefits from opportunities to meet other PWS, engage in open dialogues about stuttering with SLPs that they felt understood and empathized with their struggles, and work toward increasing their acceptance of stuttering. In stark contrast, participants noted that their most distressing experiences oftentimes entailed discussions that solely revolved around the purely quantifiable aspects of their stuttering (e.g., cataloguing the different types of disfluencies/secondary behaviors that emerged during moments of stuttering, frequency and duration counts, etc.) an overemphasis on the practice of fluency-shaping techniques, and grappling with feelings of frustration or self-defeat when they were unable to consistently implement whatever tools they learned in therapy outside of the clinic.

With respect to their experiences in support groups, some participants described having to navigate several potential deterrents to their continued engagement and involvement in these environments, such as feeling pressured to speak, make worthwhile contributions to discussions, or needing to reframe their encounters with stuttering in a positive light to have their perspectives validated by individuals who were further along the stuttering acceptance continuum. Despite the occasional drawbacks incurred by some participants, they each highlighted having access to an inviting, accepting space to exchange

stories and shared experiences with other PWS as particularly enjoyable and meaningful aspects of their engagement within these group-oriented settings.

ASQ Findings

Participants' responses to the Anticipation of Stuttering Questionnaire (Appendix D) varied markedly across with regard to various levels of anticipation (i.e., sound, word, and situation-level), with answers along the 5-point Likert scale utilized within the questionnaire (i.e., with 1 being "strongly disagree," 2 being "disagree," 3 being "neutral," 4 being "agree," and 5 being "strongly agree") spanning from "strongly disagree" to "strongly agree" across all items related to these facets of stuttering anticipation.

All participants had "agreed" or "strongly agreed" that they experienced the anticipation of stuttering within two or more of the scenarios described within the ASQ. In addition, when asked about their beliefs surrounding the possible interrelatedness of anticipation and occurrence of stuttering (i.e., via the questionnaire item "I believe that anticipating that I am going to stutter increases the likelihood that I will stutter,"), participant responses exhibited a greater degree of convergence. While one individual reported that they felt "neutral," toward this idea, four others "agreed," and the remaining five "strongly agreed" with the statement. The ASQ facilitated a preliminary exploration of the extent to which participants had encountered anticipation across various different contexts prior to their being interviewed. A detailed overview of participants' answers can be found in Table 2 below.

Table 2

Participant Agreement w/ASQ Items

#	Item 1	Item 2	Item 3	Item 4	Item 5
P1	agree (4)	disagree (2)	agree (4)	strongly disagree (1)	strongly agree (5)
P2	agree (4)	strongly agree (5)	agree (4)	agree (4)	agree (4)
P3	agree (4)	agree (4)	strongly agree (5)	agree (4)	strongly agree (5)
P4	strongly agree (5)	strongly agree (5)	strongly agree (5)	strongly agree (5)	agree (4)
P5	strongly agree (5)	strongly agree (5)	strongly agree (5)	strongly agree (5)	strongly agree (5)
P6	agree (4)	disagree (2)	agree (4)	neutral (3)	neutral (3)
P7	agree (4)	agree (4)	agree (4)	agree (4)	agree (4)
P8	strongly agree (5)	agree (4)	strongly agree (5)	agree (4)	agree (4)
P9	strongly agree (5)	strongly agree (5)	strongly agree (5)	strongly agree (5)	strongly agree (5)
P10	strongly agree (5)	strongly agree (5)	strongly agree (5)	strongly agree (5)	strongly agree (5)

Interview Insights

Describing the Phenomenon of Contextual Variability

In the pursuit of experiencer-oriented descriptions of the ways in which stuttering can vary across contexts, the investigators identified a series of both recurrent broad themes and subthemes that captured participants' encounters with this phenomenon. The dominant themes surrounding participants' illustrations of contextual variability included the following: randomness and cyclical nature of stuttering (both of which were general characterizations of stuttering variability), internal state factors (which contained the "wellness," "emotions," "swearing," and "cognitive factors" subthemes), specific cues (which involved the "words/sounds," "phone," and "experiential association" subthemes), and finally, perceived judgment and social contexts (which entailed the "lack of perceived judgment" and "heightened perceived judgment" subthemes).

Randomness and Cyclical Nature of Stuttering

Randomness

When asked to describe how they would characterize their stuttering, 6 of the 10 participants utilized the term "randomness" as a primary attribute. As a shared experience that proved to be recurrent across the lifespan, "randomness" was broadly described as a feeling of surprise that came about following moments of stuttering that arose without warning. Together, participants' accounts of these unpredictable instances of stuttering were found to emerge in a variety of situations such as: following an extended period of increased fluency, immediately after a block, or at any given time during the act of speech production. A summary of participants' encounters with the randomness of their stuttering can be found in Table 3.

Cyclical Patterns

Four participants characterized their stuttering as being cyclical in nature (i.e., occurring as patterned fluctuations in fluency that were *not* directly attributed to any identifiable factors). It its essence, these "cycles" were described as periods of marked increases or decreases in stuttering that could last over the course of several days, weeks, months, as well as at certain times of the year. For one participant, these cycles were sometimes as brief as a series of "ups and downs" that occurred from one sentence to the next while they were engaged in conversation. An overview of the cycles that can arise within the stuttering experience can be found in Table 3.

Table 3

Random and Cyclical Nature of Stuttering

Theme	Exemplar
Randomness	So definitely knowing that I'll be in group settings or parties, as in all your friends, and their friends, and *their* friends are all there, I feel anxiety because I know it's me meeting new people, which I love. But then, I know stuttering can happen, I don't know how bad it's gonna happen, even though I feel confident, I feel anxiety because I just don't know what's gonna happen. So it kind of shows stuttering can be very inconsistent. **(P4)**
	Sometimes I enjoy really long stretches of fluency and then boom, I trip over a word. **(P5)**
	[The variability] is a challenge because it's unexpected, there's never knowing. Sometimes you could feel like you're doing great, and then it kind of kicks in. **(P7)**
	You don't know when [stuttering] is gonna happen, and you try your best not to let it happen... And it's something that you can't control...I try anyway, it's one of those things that you just keep trying to control. At some point, you just gotta acquiesce. **(P7)**
	I say something, I block, and then afterwards I'm like "holy shit, I just had a block." **(P9)**
Cyclical Patterns	I would say [my stuttering] varies through each sentence, like I'll stutter on every single word and then I won't stutter at all, and then back to every single word, back to back, like long [stutters]. That's how it is most of the time, but then it also comes and goes throughout a day, week or month. **(P2)**
	As far as long-term patterns [with variability], I would say that they ebb and flow. Sometimes, you can reflect back and try to attribute some of those more disfluent moments to an event or an activity, or something that's happening in your life. And yet sometimes, it's less obvious. **(P8)**

Internal State Factors

Wellness

Four participants highlighted "wellness" as a factor that could exert a substantial influence on the variability of their stuttering. Each of their descriptions yielded a dynamic representation of wellness, encompassing physical and mental well-being. Positively altered states of physical wellness, often associated with increased fluency, were facilitated via adequate amounts of sleep, regular exercise, high energy levels, and/or good overall health. Conversely, negatively altered physical states (e.g., tiredness/exhaustion, lack of consistency/structure in exercise routines or other aspects of life, and/or poor health) was

frequently associated with an increase in moments of stuttering.

With respect to mental wellness, 7 participants found that the variability of their stuttering could be exacerbated by increased stress (e.g., an experience generally described as feelings of being overwhelmed and/or rushed) while moments of decreased stress (e.g., characterized as an overall sense of calmness or comfort) oftentimes helped to quell the frequency with which disfluencies occurred. In addition, although 6 participants discussed variations in their stuttering associated with the consumption of recreational substances (e.g., alcohol, marijuana), no significant commonalities arose with respect to levels of fluency (i.e., no drug was universally described by participants as a facilitator/setback to fluent speech). See examples various wellness states and stuttering variability in Table 4.

Emotions

All participants indicated that heightened emotionality, regardless of whether it was inherently positive (e.g., states of intense happiness, excitement) or negative (e.g., overwhelming feelings of anger, sadness), could yield substantial alterations in the occurrence of stuttering. Though participants often attributed more frequent disfluencies to states of excitement, moments of anger (e.g., heated arguments, moments of assertive self-advocacy following negative listener reactions) almost always brought about few to no moments of stuttering. See Table 4 for detailed examples of participant's variability by different emotional states.

Swearing

Nine participants reported that, to their knowledge, they had never stuttered when they swore. As such, concerns of stuttering while swearing had seldom, if ever, crossed their minds. Participants described this context as one that usually occurred in tandem with states

of anger, but swearing was also fluent in less emotionally charged situations (e.g., joke-telling) and when used strategically as a means of getting through a difficult word or phrase with greater ease (e.g., preemptively using a swear word prior a word that is anticipated to be challenging by the speaker). Examples of these experiences can be found in Table 4.

Cognitive Factors

Seven participants explained how their engagement in a wide range of acts of cognition, from specific speaking roles (e.g., impersonations, speeches, etc.) and cognizance of life stressors (e.g., workplace obligations) to experiences of certain mental states (e.g., confidence) could serve to alter stuttering variability. Generally, cognitive factors were alterations to fluency brought on during situations in which participants' focus was directed away from their stuttering, to the point where it did not cross their minds. In a few scenarios, the combination of cognitive factors and positive/negative alterations to states of wellness (e.g., increased stress while job-hunting) also exerted an impact on participants' fluency. These factors are illustrated within the participant interview exemplars in Table 4.

Table 4

Internal State Factors (unrelated to specific cues or speaking situations)

Subtheme	Exemplar
Wellness (e.g., physical, mental)	I found when I'm sick, I do stutter a bit more, but I don't know if that's just because I'm tired too, because when I'm tired I also stutter more. **(P2)**
	On a more general basis, a lack of sleep, that definitely makes it more of a choppier speech day. Also, more generally, lack of confidence. I don't know where the lack of confidence comes from, there's just days where you don't feel at your best. When I feel like that, my speech is very, very rough. **(P4)**
	I've noticed that I stutter more in the mornings and like late at night. I think it has to do with my energy levels. When I'm kind of still waking up, I feel like I'm more prone to stuttering. **(P5)**
	The variation is based on these factors foB:Ce, sleep is huge, and I find that when I'm about to get my period, I feel a greater tightness around my throat, with those muscles of speech, it just feels like it's even harder to get those words out. And I feel like when my life is very structured with exercise and sleep and everything, the dynamics of stuttering seem to line up better, so, talking about the component of stress. **(P10)**
Emotions	When I'm angry, I don't really stutter, and I guess that's also when I have to get something out. **(P1)**
	I don't stutter if I'm pissed off. If I'm *mad* mad, I don't stutter at all. I don't know why that is, but that has been a thing my whole life. Aside from that, I'd say it's always been pretty up and down. **(P2)**
	If I'm excited and I have the best news ever, I will probably stutter a lot on it, and that's also kind of the same physical feeling of stress. **(P2)**
	When I'm excited or if I really wanna tell a story or get something out that there's excitement around, sometimes that need for pace or emotion definitely brings out some of the stuttering as well. **(P7)**
Swearing	I don't stutter at all when I curse. It's weird, when I'm mid stutter or I feel one coming on, if I curse, then I don't stutter. So if I was stuck on "I can't wait," I would stutter, but if I said "I can't fucking wait," then I wouldn't stutter. I don't know why. **(P2)**
	I feel like swear words just flow out, maybe it's because I've never stuttered on them that I don't feel that fear of "oh my gosh, I'm going to get stuck on it," unlike other words. There's no anxiety of stuttering on those. **(P4)**
	When swearing, I don't think about stuttering, I think about swearing. It's such a specific thing like, "shit, damn, fuck, bitch," those are just very specific words and there's no sense that I will stutter, there's no anxiety or anticipation around that. **(P7)**
	Oh yeah, when I swear, that is *fluent*. That's good, that's super good. I feel like I would have kind of like a muscle memory if I ever stuttered on those, so I think they've always come out very fluent. **(P10)**
Cognitive factors (e.g., roles, stress, confidence)	I'd say during summer months, I see less stuttering. Whenever the academic year starts up again, I definitely see more stuttering for sure. Whenever my schedule is really uncluttered, free, flexible, I don't see a lot of stuttering. I feel when my demands increase in number, they become more complex, that's when I'll see a lot of stuttering. **(P5)**
	Down through the years, I have had periods of disfluency lasting months, maybe a year or so. One such period was right after I left a corporate job. During the 6 months or so I was job hunting, I was very disfluent. After 6 or 8 months, I started taking up freelance projects. I decided to start a freelance practice instead of taking another corporate job, and my fluency cleared up. **(P6)**
	Then you have those moments that are like flukes, like I was in my best friend's wedding... and nauseous for like a week prior, just thinking that I had to speak, and then I got up there and I didn't stutter once, and then I sat down and my friend's husband was like "have you been faking it for years?" So we have these moments, maybe we have this variability tapping into a role. There's some connection to mind and body that you can transcend occasionally. **(P10)**

Specific Cues

Words/Sounds

Nine participants shared experiences of fluctuations with stuttering that were associated with particular sounds or words. Although several reported encountering disfluencies more often with vowels or consonants with certain characteristics (e.g., plosives and velars, which were described as "hard" or "harsh" sounds), there was greater variance found among participants' descriptions of sounds that were described as being "smoother," and more pleasant to work through. Across participants, "easier sounds" included everything from nasals (e.g., /m/, /n/) and liquids (e.g., /l/, /r/) to vowel and consonant sounds that had been classed as challenging by other participants. At the word level, participants reported stuttering on a wide variety of words, ranging from rote personal information (e.g., name, address, birthday, hometown, etc.) to words used frequently "on the job" (e.g., during a sales pitch or team meetings). An overview of participants' encounters with these contexts is in Table 5.

Phone

Six of the participants found that talking over the phone could yield negatively altered mental states (e.g., stress sometimes derived from being unable to gauge listener cues, expressions, etc.), physical tension (e.g., characterized as tightness of muscles around the neck and/or jaw areas) and/or more frequent moments of stuttering. The remaining 4, however, found that they were either no more fluent (or disfluent) than they usually were, or even more fluent (e.g., because they tended to enunciate words, speak a bit louder) in this particular situation. Further details on participants' experiences within this communication context can be found in Table 5.

Experiential Association

Four participants drew connections between certain contexts and previous moments of stuttering characterizing stuttering variability via experiential associations. Participants' thoughts and emotional states surrounding these experiences are elaborated upon in Table 5 below.

Table 5

Specific Cues (associated with changes in stuttering)

Subtheme	Exemplar
Words/Sounds	I would say I stutter on the harder sounds like /p/, /b/, and then fricative-type sounds, those are where I stutter the most. **(P1)**
	I stutter the most when I talk about stuttering, so this is gonna be fun, and I stutter the most on my name, I've never said it and not stuttered on it. **(P2)**
	So definitely my last name, I always stutter on that. That's something when I know I have to say it, it maybe causes me to stutter more because I anticipate that stutter. That and vowels. Any words that start with a vowel, man, I know it's not gonna be a good time. **(P4)**
	I don't know if it's because I'm so used to stuttering on a certain word, or even when I'm practicing what I say and it's just me, I still stutter, so it's kind of like, the way that your memory is, you just known that there's certain words you always get stuck on. **(P4)**
	Sometimes [I anticipate on] words because I know for the most part, when I'm talking to customers about what we're going to do, I'm saying similar things almost every time. And I know with certain sounds like /k/, /m/, /p/, or /b/, these types of sounds, that there's a greater chance that I might stutter. **(P7)**
Phone	I hate the phone. I have to say "hi," but I always stutter when I say "hi," so then that's a whole awkward thing. I think the fact that it's on the phone and they can't see me makes me so nervous that, that adds to it 'cause it's like "this is hard," physically but then it's also in here too, I'm thinking and stressing so much and it's a lot of pressure on both sides. **(P2)**
	With phone calls, I can feel confident like, "I got this, I'm gonna do this," and then, I start talking and everything feels so tight, there's no airflow, and it's just awful. **(P4)**
	Sometimes on the phone, I can get away with my name but I have to be really conscious and so relaxed so it doesn't [get stuck]. Whenever I make a call, I have to get really relaxed and take those deep breaths and I'm kind of priming it. Whenever the cell phone rings, I'm just like 70% of the time "not gonna answer," 30% of the time, I do. I call back when I can, shake it out, and prep. I do phone stuff with a lot of prep. **(P10)**
Experiential Association	Around peple I know are pretty high up, higher up than me, I would say that I have more stuttering moments than I would in a casual conversation. **(P1)**
	I think there's certain people that, there comes a time where you just have a really bad speech day and, with that person, when you see them next, it's kind of like, "oh my god, last time was so embarrassing, my speech was super bad, I was very disfluent," and so I think those thoughts kind of condition that mindset to where, when I talk to them again, it's just really bad speech. **(P4)**
	Before going into a conversation with people who I have a history of stuttering a lot more with, there's a lot of anxious feelings and nerves. I try to calm myself, but in that moment, it's very hard to separate the anxious feelings from wanting to communicate my exact thoughts. Those two things kind of get tangled and that's when I get a stuttering event. **(P5)**

Perceived Judgment and Social Contexts

Lack of Perceived Judgment

Eight participants described social contexts in which their stuttering was reduced or absent. These were primarily depicted as situations in which they encountered a diminished overall sense of perceived judgment on the part of the listener (e.g., negative reactions to stuttering). Though most individuals discussed situations that are sometimes classed as "textbook" examples of when PWS are more, if not completely fluent (e.g., speaking to children, pets, or people with whom the speaker feels more comfortable), some participants' experiences diverged from these so-called universal truths of stuttering. For instance, 2 participants noted that they still stuttered when they were talking to themselves, and that to become completely fluent in this context, they had to alter some aspect of their voice (e.g., speaking in a softer tone, using a voice different from their own).

Heightened Perceived Judgment

When asked to explore the nature of contexts which they encountered more disfluencies than usual, all participants provided examples that were distinguished by an amplified sense of perceived judgment. In addition, many participants elaborated on how these intuitions frequently occurred alongside thoughts regarding listener attributes (e.g., cognizance of an interlocutors' position of status, authority, lack of general familiarity with the speaker and/or the fact that they are a PWS), awareness of how they wish to present themselves (e.g., desire to convey intellect, confidence, and/or make an overall positive impression on their listener), and conjectures about how listeners viewed them. Participants' descriptions of how they have experienced and navigated these perceptions of themselves and others are highlighted in Table 6.

Table 6

Changes in Stuttering (associated with perceived judgment/social contexts)

Subtheme	Exemplar
Lack of Perceived Judgment	When I talk to my pets, I don't stutter, unless there's people in the room. If it's just me and my dog, I don't stutter. **(P2)**
	When it's just me [talking to myself], I do stutter, and I think it's because I don't talk in a different voice. Like if I read out loud to myself but I read in a very soft voice, almost faster and mumbling, I don't stutter, but if I were to read aloud and I was talking at a normal volume, then I do stutter. **(P2)**
	I don't stutter much at all when I'm with my husband because I feel very comfortable and respected. Or with my family, close friends who I know are listening, who aren't forming a judgment of me based upon the way that my speech comes out. I feel more comfortable and confident in the fact that it doesn't matter if I stutter. **(P3)**
	I don't really [talk to myself]. I think when I do, I still stutter, I'll reflect on the day, or sometimes I'll talk to myself as I'm reading out loud, typing a paper, or some kind of school thing. If I'm practicing for a presentation or for something where I'm actually focused on what I'm saying, I'll get more disfluent when I'm doing that. **(P4)**
	With self-talk, I do engage in lots of that because I need to hear myself think. When I do that, I don't ever stutter. **(P5)**
	With people that I'm comfortable with, or that know I stutter, much less disfluency. Because there's not that barrier, that fear. **(P7)**
	If I talk to my cat, I'm not gonna stutter. If I'm with myself and just kind of talking out loud, or quietly talking, I don't ever recall stuttering. **(P7)**
	I can definitely confirm that there is almost no stuttering with dogs, babies, while in the shower. I think stutterers are so acutely aware of the number of humans and the social interaction that in these other situations, you're almost in a vacuum. There's essentially no psychosocial pressure. **(P10)**
Heightened Perceived Judgment	In general [my stuttering varies] when I'm meeting new people, I think because there's more of a concern about "they don't know that I stutter, what are they gonna think, how am I gonna come across, it's gonna be so painfully awkward that they aren't gonna want to be my friend," anything where I project a judgment, or there's still a judgment being formed for them, it feels much more critical, so that adds more stress. **(P3)**
	The situations where [stuttering] comes across the most are ones that feel more high pressure. So a meeting that I feel is high stakes, or with a new client, will feel more scary and stressful. Anything where I'm meeting new people where I really care about the impression I'm making sort of adds to the stress and pressure that I think causes me to stutter more. **(P3)**
	I think I definitely avoid more when I'm speaking to a group of people and people who I feel intimidated by. On the other hand, when I'm just talking with somebody, or talking in a smaller group, I feel like I can just be open, even if that means I stutter really bad. I think that's because when I talk to a larger group, or to somebody I feel intimidated by, I guess the one thing I struggle with is I don't want to be perceived as weak. **(P4)**
	In situations, I feel like I stutter more with certain individuals, especially if they're higher up in the chain of command. So like, coordinator at work, I stutter a lot with, and professors. Then within family I stutter a lot with my sister in law, my brother, I guess people who are really important to me and whose opinion of me matters a lot. **(P5)**
	I typically don't have a lot of difficulty making small talk, whether it's with a stranger or not. I think if it's more meeting someone for work, presenting, I'm more disfluent in those situations. I would say in those situations, I would find my stutter worse. I think typically, I stutter more when I'm talking with someone in a position of power. People in a position of power that I don't have a close relationship with. **(P8)**
	On one-on-one conversation, I'm fairly fluent, but as soon as it enters a group setting, that's when things go south. **(P9)**
	[My stuttering varies] with the social environment that I'm in. I have a very hard time saying my name so, if I'm gonna be at a bar or a work function where we're all gonna have to stand around and do an intro, that's higher on the "rough" scale. **(P10)**

Describing the Phenomenon of Anticipation

Participants' experiences of anticipation revealed not only how the cognitive, physical, and emotional facets of the phenomenon are often enmeshed, but also how it can materialize across different timescales. The investigators utilized three discrete terms (i.e., forecasting, assessment, and detection) to facilitate an in-depth description of the variable timeframes within which the phenomenon may unfold.

Participants' cognitive thought processes, emotional reactions, physical sensations and responses (e.g., avoidance) were fairly consistent across all timescales of anticipation. For instance, participants' thoughts revolved around the understanding that they could, or would, engage in the act of speaking at some point in time. These thoughts often involved an awareness of the potential consequences of stuttering (e.g., positive or negative listener reactions) that could arise within a given context. The emotional responses that occurred alongside this awareness often instilled feelings of anxiety or dread. Anticipation was sometimes further amplified through the emergence of physical changes, such as sweating, shortness of breath, or localized tension (e.g., within muscles of the jaw, neck and throat). Additionally, participants described how they sometimes used approach (e.g., the decision to face moments of stuttering head-on and speak freely), avoidance (e.g., the decision to work around certain sounds or words), and/or strategy (e.g., the decision to implement a stuttering modification technique) responses to navigate their experiences.

Although the classification of experiential domains encompassed within anticipation (e.g. cognitive, emotional, physical) remained similar across time, the discernment of its various timescales yielded additional nuances. Here, speakers' experiences of the phenomenon revealed the many ways in which they responded to anticipation to traverse

various aspects of the social world. The vital importance of acknowledging each of these distinctive timeframes is further highlighted through a discussion of the dynamic range of impact that anticipation can exert on an individual's overall quality of life, found in a later subsection of this paper.

Forecasting

All participants discussed occurrences of a long-term form of anticipation, which was primarily characterized as ruminating thoughts and predictions of potential moments of stuttering within contexts that the speaker may find themselves in the distant future. An individual may engage in forecasting surrounding anything form a very important presentation happening in two weeks' time, to an upcoming dinner party where meeting new people, introductions, and small talk are more of an inevitability. Although forecasting was characterized by cognitive thoughts, participants additionally described emotional reactions, physical sensations, and varying responses to these experiences (see Table 7).

Table 7

Anticipation: Forecasting

Subtheme	Exemplar
Cognitive	In certain situations, I know I will stutter like, "it's gonna happen." Definitely on the phone, that's a given. I know it's going to happen. Scheduling appointments, in person or on the phone, 'cause there, you have to give your name, birthday, all those things. Since I stutter on those, I know those are going to be stuttering moments. **(P4)**
	My dad and sister are planning to visit some family for the holidays. I feel like if it weren't for the stuttering, I'd be someone to jump on that opportunity. But just thinking about "oh my gosh, I'm gonna have to speak in Spanish 95% of the time, am I ready for that? For those stuttering events with people who have never heard me stutter?" **(P5)**
Emotional	I could do a TED talk if I had to, like I could do anything. It would be hugely nauseating, I would do it, it would probably feel pretty good, I'd probably be happy I did it after, there is no channel that I wouldn't cross now, but I'm not saying that it would be physiologically pleasant. It would be uncomfortable, but I would totally do it. **(P10)**
Physical	I only these days anticipate [stuttering], mainly for public speaking. A friend of mine asked me to officiate her wedding. The physiological thing is that I have a low, deep stomach pain for maybe a week, which increased as the proximity to the wedding got closer. Then on the day of, like unable to eat, did the ceremony, and felt this relaxed thing in the gut. So anticipation for me is physiological. **(P10)**
Response (Approach)	I think with certain situations [where I've stuttered], I in general have more anxiety surrounding those so I experience more stress going into them. I try not to let myself avoid things altogether, I think in general it's more about my emotions going into it than my actions as a result. **(P3)**
Response (Avoidance)	So how [avoidance] works is "oh, I have a hard time saying /b/ or hard plosives," so if there's a word that's coming up in the sentence that has one of those, I could check in my brain to see the synonyms, or choose a different word, or even place that word in a different part of the sentence. Then there's the strategy of pretending like you're thinking of what you're going to say as you are trying to get past a block. **(P8)**
	I'm even anticipating stuttering events way in advance. That in of itself is enough to convince me to not go and not deal with the stress and pressure to speak Spanish fluently in front of family. **(P5)**

Assessment

All participants described unique instances of a short-term form of anticipation which, broadly, occurs when a speaker finds themselves within a context that they had not planned on being involved in. For instance, while chatting with a close friend at a bar, a speaker may suddenly spot a small group of people heading toward them to engage in small talk, prompting them to lurch into thoughts regarding how exactly they will be introducing themselves. Participants' described their encounters of impromptu speaking contexts as an

experience that triggered an assessment of the potential speaking situation at hand, which often entailed taking stock of the speaking expectations and/or consequences of stuttering implicit within that situation. Although they may not necessarily be required to speak, the experiencer's general anticipation is heightened nevertheless, due to the immediacy and nature of the situation (i.e., speaking context) itself. A compilation of participants' experiences surrounding assessment are described in further detail in Table 8.

Table 8

Anticipation: Assessment

Subtheme	Exemplar
Cognitive	Just thinking back in my life, [stuttering] was one more thing to worry about. Just about every situation I found myself in, such as walking into a store, going out to a social event, or a meeting, that experience was filtered through the perception that "okay, this situation bears a risk of stuttering, how am I going to cope with it? How severe is the risk? If I'm walking into this party with my wife, how many people will there be whom I do not know, and to whom will I introduce myself?" So that sort of second track thinking. **(P6)**
	I think I might [avoid] more in situations where I'm talking with someone new, that I might not have a relationship with. I think of it in terms of investing in relationships. So if it's somebody I'm gonna talk with more in the future, then I'll take the time to say "hey, I'm a person who stutters," and lay it out for them. If it's someone I'm not gonna have a relationship with, I have a greater tendency to pass as someone who doesn't stutter. **(P8)**
Emotional	So I basically feel [anticipation] every time I open my mouth, whenever someone meets me or I have to talk in class. As soon as I know I'm going to have to talk at some point, that feeling is kind of already there. **(P2)**
	When I'm with friends, I'm gonna stutter, but I don't get scared of it, I just know it's gonna happen. I know I'm going to stutter and it's probably gonna suck 'cause it's gonna make me tired, but it's not gonna make me scared, and it's not gonna make me not talk. Whereas in other places, [anticipation] might make me scared to talk. **(P2)**
	This summer we had family visiting from out of town. I wasn't worried about my fluency. I started talking to them and felt really unsettled by the impending stuttering and I dipped. With family members who are predominantly Spanish speaking, it's tough because they perceive you not as someone who has a speech disorder, but as someone who is incompetent in their mother tongue. It's really, really upsetting. **(P5)**
	In meetings, sometimes my boss calls in and most of the time, he speaks up. Last week, he didn't have his laptop, but I wasn't able to speak up, I didn't help him with those numbers. It could have been so easy for me, speaking up and saying five sentences and I would have been done. But I was so embarrassed, so afraid of speaking up that I didn't say a word. Because I was afraid that I would stutter or say something incorrect, this fear made me shut up, made me freeze, I guess. **(P9)**
Physical	If I think "I'm gonna stutter, I'm gonna get made fun of, I'm gonna cry," I probably will struggle through those stutters a lot more, they'll be a lot more intense, a lot more physical. But if I think "I'm gonna stutter," and that's it, I'll still stutter just as much, but I won't struggle as much, so it won't feel like as much stuttering to me. **(P2)**
	I think as I'm more tense, and more hyperaware of my speech and things like that, it definitely just makes [stuttering] a lot worse when I'm not breathing regularly. All these physical symptoms and anxiety are things that certainly don't help the speech come out fluently. **(P3)**
Response (Approach)	The past few months I've been avoiding ordering, but I've been trying to do that, it's still hard, but I try. When it comes to food, I will try as hard as I can to get what I want out 'cause I am a very picky eater so it's like "I need this thing or else I'm gonna eat nothing." **(P2)**
	I've had a few experiences recently where it was like "I'm just gonna stutter and I'll say the word I wanna say and if I stutter, so be it." It wasn't nearly as bad or as big a deal, and in the end I felt better overall about the communication. I've been trying to reframe my expectations around what is success and communicating effectively, and that getting the content of my information across is more important than saying it perfectly fluently. **(P3)**
Response (Avoidance)	[Anticipation] manifests more as avoiding a conversation or an interaction altogether if I think it's gonna go badly, particularly if it's someone who I don't know yet. At my church for example, we're supposed to introduce ourselves and greet one another. Sometimes I'm more selective about who I'll go talk to because I want to avoid an uncomfortable speech situation, even if it's someone I'm interested in getting to know, rather than taking the risk of maybe stuttering. **(P3)**
Response (Strategy)	I've had many people I've seen and I can just tell they're gonna react [to my stuttering] a certain way, so I might as well put on my game face and try my best, and it's not my fault, and it almost gives me time to plan how I'm gonna tell them "that's not nice," and also how I'm gonna feel about myself. **(P2)**

Detection

All participants shared a vast range of experiences surrounding an immediate form of anticipation, which was distinguished by its emergence during the processes of speech planning or production. This detection of potential moments of stuttering varies some with regard to the timescales across which it may come about. One variant of detection can occur in relation to preemptive speech planning used by the speaker as a means to avoid words that they anticipate will arise within an immediate speaking context. For instance, if while carrying out a conversation an individual feels they will be asked about their occupation, they might arrange to say, “I’m a teacher,” rather than “I’m a professor,” if the word “professor” brings on a sense of anticipation. Detection can also operate under more spontaneity, as it can occur in a speaker’s identification of a word that they will likely stutter on just prior to its execution. A summary of participants’ experiences of detection are in Table 9.

Table 9

Anticipation: Detection

Subtheme	Exemplar
Cognitive	Another trend and observation of my stuttering, most of it occurs at the beginning of words. So I think anticipation, with the idea that most stuttering occurs at the beginning of words, you can begin to anticipate that as you're forming thoughts or sentences. And just like a lot of stutterers, I would reroute what I was trying to say and try thinking of a different way to say it so I could avoid certain words or phrases. **(P8)**
	Word-switching happens so fast. I have an idea of what I want to convey, I put certain words in my head that would convey that message. The next step is putting them in a logical order. Along the way, out of nowhere, there are certain words where I believe "this might be a word where I block." It's just like in a heartbeat "this is a bad word for me," and in that moment, I have the option to choose "I'm gonna say it," or switch it out. I think I actively have to make a choice to stick with it, I think it's easier for me to switch the word. **(P9)**
Emotional	When speaking to family, I've noticed I direct my eye contact away from them whenever I do feel a stutter event coming on. That kind of makes me afraid that they'll feel I'm disengaged from the conversation, or that I don't really care about what they're saying, but it's like "no," I feel a stuttering event coming on, so I want to do anything I can to diffuse that fear and anxiety when it's happening. **(P5)**
Physical	[Anticipation] is more an adrenaline rush almost. On a small scale, I'll tense up a little bit, or my heart rate will go up a little bit. Also, a little bit short of breath, which is not helpful when you're stuttering, or just holding my breath which again, is the complete opposite of everything that is helpful when you're speaking. **(P3)**
	I experience [anticipation] like my heart starts to beat faster, and sweaty palms. Even though I feel confident stuttering, it's just knowing it's gonna happen. **(P4)**
	When I do feel a stuttering event is about to happen, I get a lot of tension around my neck area, and this knotted feeling in my gut and a lot of anxiety. That's when I usually go into my head and start looking for ways to either get through [stuttering] as quickly as possible or substitute or cut my sentence off and start another. **(P5)**
Response (Approach)	I think on a very slow level, I try to avoid less over time. But because it's an active process in my head where I have to tell myself "okay, now you will stick with that word, you will not switch that word," or "you will not avoid it," I think this is something that will take time and I feel like I have to work on it. **(P9)**
Response (Avoidance)	I do run into situations where I find myself slightly changing what I'm gonna say to try and avoid a word that I know is gonna be hard. Which is frustrating to me because oftentimes, it's not the right word, I'm not communicating as effectively when I do that. **(P3)**
	If I feel like any words are gonna cause me to stutter, then I quickly change course and I'll find different words to use. **(P5)**
	As an adult, I think it would be safe to say I probably tried to navigate away from stuttering in whatever means I could, if that meant using a different voice, or using inflection on certain words or just replacing words. **(P7)**
	So how [avoidance] works is "oh, I have a hard time saying /b/ or hard plosives," so if there's a word that's coming up in the sentence that has one of those, I could check in my brain to see the synonyms, or choose a different word, or even place that word in a different part of the sentence. Then there's the strategy of pretending like you're thinking of what you're going to say as you are trying to get past a block. **(P8)**
Response (Strategy)	Sometimes I'll find a way to distract myself when a stuttering event is about to happen. I'll start fidgeting with a piece of clothing, or start playing with my hair. I think "well, if I can get my mind on something else besides the word, I may just get through it without stuttering." **(P5)**
	As I notice that sensation of anticipation, I feel like I can instinctively rely on fluency shaping, or modifications. I think I've practiced them so much that I benefit from the practice of those. If I were to try and identify which ones I use, probably adjusting my pace of how fast I'm talking. So if I'm anticipating a block, I'll try and slow down the pace so that I can approach that word I'm anticipating with more focus, but less tension. **(P8)**

Additional Insights on the Phenomena of Anticipation and Contextual Variability

Through participant-centered insights on how the phenomena of inquiry could coalesce, the investigators discovered a series of overarching themes that encapsulated participants' unique experiences and beliefs. Participants' experiences yielded two broad themes: changes in anticipation over time (which included the "short-term fluctuations" and "long-term changes" subthemes), and the impact of anticipation on quality of life (with "variance in the extent of impact" as a standalone subtheme). With respect to participants' beliefs, two additional themes emerged: beliefs with regard to the role of anticipation on stuttering (which encompassed both the "belief that anticipation can increase stuttering" and "belief that anticipation does not increase stuttering" subthemes), and beliefs surrounding possible modulators of stuttering anticipation.

Interactions Between Variability and Anticipation

Participants' general thoughts surrounding the possible interactions that occurred among the phenomena of interest yielded a dichotomy of sorts, in which the belief that anticipation did and did not have a role in stuttering variability existed at opposing ends of a continuum. With respect to the latter, 3 participants reported that they aligned quite strongly with the idea that the onset of anticipatory thought processes alone could serve to trigger additional responses (e.g., physical and/or emotional in nature) that, in combination, were enough to impart an adverse impact on their speech. In contrast, 2 participants found that these phenomena did not hinder their fluency within any particular context, but rather, were separate entities that were embedded within their experiences of stuttering as a whole. Finally, 1 participant's ideas surrounding the relatedness of stuttering anticipation and

variability provided a glimpse into the nuanced, unpredictable nature of their occurrence across contexts. For a detailed review of participant excerpts, see Table 10 below.

Table 10

Interactions between Variability and Anticipation

Subtheme	Exemplar
Belief that Anticipation can Increase Stuttering	Definitely when I anticpate a stutter, I feel like it happens more than if I had no idea that anyting would happen. **(P1)**
	When I do feel a stuttering event is about to happen, I get a lot of tension around my neck area, and this knotted feeling in my gut and a lot of anxiety. That's when I usually go into my head and start looking for ways to either get through [stuttering] as quickly as possible or substitute or cut my sentence off and start another. **(P5)**
	I think the higher the fear of speaking, the more anticipation, the worse the stutter gets. Or the more likely it is that I actually will have a block, or stutter. Knowing that I have to speak up, knowing that I have to say my name makes it so much worse and makes it so much more likely that I will stutter, that's just how it is. **(P9)**
	I have moments with friends and family where I feel comfortable, where I would say I'm 95% fluent or even more than that. I don't think about [stuttering]. I guess that's what it is, if I don't think about it, that I might stutter, I'm fluent, but as soon as the thought comes up that "oh, I might stutter here," I think that messes things up. **(P9)**
	If you think about that, introducing yourself to a group of people, your breath is kind of not diaphragmatic, it's really high, and you're sweating like armpits, and hands —my hands dripped moisture almost— that lends itself to more variable speech. Whereas if I'm entering a living room with a couple of my friends, there's a lot less variability there because my body's not going into all these physiological responses. So yes, the anticipation causes a physiological response, which affects the variability. They seem to follow each other like a nice equation. **(P10)**
Belief that Anticipation does not Increase Stuttering	My stuttering varies because it varies, I don't think I stutter more if I go through more anticipation. **(P6)**
	I feel like I could give almost as many situations where I haven't thought about stuttering and my speech was fine and fluent, or less disfluent, as well as where I've either thought about stuttering and I still hadn't been very disfluent, or where I've thought about it, and been very disfluent. It's hard for me to think of the anticipation directly affecting variability. **(P7)**
	I guess my answer is that I don't think anticipation will cause stuttering to happen more. I feel like I can typically isolate that in it's own separate, unique experience, and then I can move on. If it comes up again, 'cause it's variable, I don't think that it's "oh, it's because I was anticipating, so it caused it more." I don't see a causation in that. **(P8)**

Beliefs on What Modulates Anticipation

Three participants noted that a general sense of fear lied at the core of their encounters of anticipation. For these individuals, the thoughts that emerged alongside this fear frequently revolved around concerns of how they conveyed themselves to their speaking partners, or of how their stuttering would present itself as they engaged in conversational exchanges. Though fear was a shared aspect of participants' stuttering anticipation, the participants characterized the basis of this fear relative to their lived experiences of stuttering. Individualized depictions of stuttering anticipation modulators are highlighted in Table 11.

Table 11

Beliefs on what Modulates Anticipation

Subtheme	Exemplar
Concerns of Listeners' Perceptions	I think the anticipation is just built around the fear that people are not gonna take me seriously, that people are not going to treat me with respect. I think that's the bottom line, that I wanna be treated with respect. And I fear that by stuttering, people will look down upon me and treat me as less than, or someone not as worthy of their time because I can't have a conversation the same way that most people can. **(P7)**
	I think anticipation goes back to not looking stupid. I think this is the main underlying cause of why I'm afraid of speaking up, or I care too much what other people think about me. If I didn't care what other people think about me, that would solve a lot of issues. If I didn't feel like they judge me because I cannot speak fluently. But I have this expectation of myself, I want to know it all, I want to do it well, I guess I want to look good, I want to look smart. It's like this big underlying cause of self-image. **(P9)**
Directing Focus Toward Stuttering	When I'm focused on something other than my stuttering, the anticipation is almost an afterthought. When I'm thinking about it, it's more anxiety inducing, and most of the time, I do stutter 'cause with the added anxiety and nervousness, that almost always brings about a stuttering event. So it's like "let me focus on the person I'm speaking with, their message, their words." I'm definitely more at ease, less stressed, when I'm focused on the person instead of drowning in my thoughts of whether I'm gonna stutter or not. **(P5)**

Changes in Anticipation Over Time

Four participants explored how their experiences surrounding the anticipation of stuttering have varied throughout their lives. Two of these individuals discussed working through periodic cycles in which anticipated moments of stuttering entailed increased physical struggle or yielded detrimental effects on their mental and emotional states which lasted well beyond their occurrence. The other 2 participants reflected on how they have gotten to a point in which they frequently approach their anticipation with indifference, or occasionally forget its existence altogether. These changes in particular were attributed to epiphanies encountered during stuttering therapy, emotional maturity, and an accumulation of general life experience which allowed these individuals to put their stuttering in perspective relative to other trials and tribulations that they have experienced in their lives. Participants' experiences with fluctuations in anticipation across time are illustrated in Table 12.

Table 12

Anticipation: Changes Over Time

Subtheme	Exemplar
Short-Term Fluctuations	That is a fear I have just because now those [long, intensely physical stuttering moments] happen a lot. I think it's a mix of "it's tougher now," and then "I'm scared," so then the fear adds to that and makes it even more tense and stressful, which then adds to the struggle part, 'cause I'm trying to push out of it, which makes it rougher. **(P2)**
	On the anticipation part, it's very similar to that. When things are good, I still experience feelings of nervousness, being anxious, but I feel like I control all of it better. When I'm in that bad cycle, I just let those feelings take a toll, kind of feeling negative, letting those anxious feelings take over my mindset. Like, if I feel anxious about a phone call, and I take that phone call, and it was awful, and I'm like "oh my god, I suck at talking on the phone," I just let it take over my mood, and it's just a bad day. I let it consume my feelings. **(P4)**
	There's cycles where a certain word or phrase always comes out fluent, or it always comes out choppy, and my anticipation of that word or phrase definitely plays a role. There was a point where I would say the phrase "hey, how are you?" beautifully. I think once I said it right, I anticipated that it would come out fluent. The moment I stuttered, I was completely backtracked. I thought "shoot, because of that one time I was on the phone and I said it and I stuttered, then every time I say it, I always stutter on it." **(P4)**
Long-Term Changes	As I've gotten older and sort of gained the emotional maturity to not let one bad thing be how I view myself or let it spoil my whole day or week, I've gotten a little bit like "oh well, it was bad, but it'll get better another day," and sort of letting it be, letting stuttering episodes happen without despairing or wallowing in them. **(P3)**
	These days, I'll have nearly no anticipation at all. I'll be talking and suddenly hit a block and say "oh yeah, I'm still a person who stutters, okay, I forgot about that." I really don't think about stuttering unless I happen to hit a block. **(P6)**
	I'm having to think way back on [anticipation] because I really don't experience this now. It was a fear of being embarrassed, ashamed, feeling angry at myself for stuttering in the first place, or not being able to modify my blocks. **(P6)**
	Thinking back, I probably do less anticipation of stuttering, mostly because I no longer give a shit at this point. If I stutter, I stutter, if I don't, I don't. **(P6)**
	One impression I had when I was going through speech therapy, is that people who stutter are thinking on two tracks virtually all of the time. We're going through the normal thought process of going through life and carrying a conversation, doing things, but at the same time there is a second track going about "okay, am I going to stutter on the next word, sentence, or situation?" I've largely abandoned that dual-track thinking, at least on a full-time basis. But it was with me for many, many years. **(P6)**

The Impact of Anticipation on Quality of Life

Six participants highlighted anticipation as an aspect of stuttering that was both perplexing and pervasive. As such, many individuals contemplated how stuttering anticipation directly affected their cognitive and affective states, sense of self, desire to

engage in a wide array of interactional contexts encircled within their day to day routines, and overall pursuit of a good quality of life. Participants additionally noted that although the adverse impact of anticipation could manifest within different timeframes, it was its occurrence over extended periods of time that proved to be especially disconcerting, as this was emphasized as a primary facilitator of avoidance across several dimensions (e.g., sound-level, word-level, situational, etc.). A review of these experiences can be found in Table 13.

Table 13

Anticipation: Impact on QoL

Theme	Exemplar
Variance in the Extent of Impact	I would say [anticipation] impacts my quality of life a lot more now. I'm alive, I'm healthy, so I have the time to sit and think about stuttering. I feel good about myself, so when stuttering sucks and people laugh at me for it, I've stuttered my whole life, but it didn't affect me this way for most of my life. **(P2)**
	I think where I've experienced [anticipation] in the past really impacting my quality of life is when I've let it drive my behavior in a way that I didn't like. I would say it doesn't have nearly as great an impact on my quality of life as it could because most of the time, it's a purely emotional thing. So it has a real impact there, on my stress an anxiety, but not so much on my behavior. **(P3)**
	I feel like the [anticipation] is more of a negative thing. When I avoid, I feel like "whew, I just got through that one," but then it makes me feel like "dang it, you could've just said what you wanted to." Feeling anticipation is a lot of negative "oh my god," nervous, and I feel scared. When I avoid, I feel shameful that I let that feeling of "you can't do it, you can't speak confidently through that stutter moment," take over, I just feel bad about me. **(P4)**
	As of right now, I think anticipation definitely interferes [with my quality of life]. Even through growing to be as confident as I can be, growing to be resilient and positive, I feel like having more responsibility requires more communication, which brings a lot of anxiety, which contributes to anticipation. **(P4)**
	[Stuttering] is definitely a factor that seems to get in the way of achieving an ease with my interactions and connections with people. But it's that fear of stuttering that really holds me back. I feel if I didn't have to dreadfully anticipate stuttering, I'd probably have a more vibrant social life, I'd be out more. But because of that fearful anticipation of stuttering, I am very guarded with whom I speak with, how often, when. It's not easy. **(P5)**
	I really try to work on avoidance reduction, just because I don't feel as authentic, and I want to be true to what I want to say in the moment. I think because I strive to reduce avoiding, the anticipation of stuttering, whether it happens or not, doesn't impact me as much. I consistently make decisions to say the things and words that I want to say. So whether I anticipate a stutter or not, I'm gonna go into it, and I think I can flow into that more easy stuttering, acknowledging "hey, I'm going to stutter on this word, probably." **(P8)**
	I think that the anticipation of stuttering is the hardest part that comes with it. I think knowing that I have to say my name stresses me out more than the feeling afterwards. I think that knowing I have to say certain words or certain things at work because that's the language they use, to a certain degree it freaks me out because I cannot avoid those words, I cannot switch them out. **(P9)**
	I took this job knowing that I would probably have to speak up and have more meetings, so [anticipation] didn't hold me back in the big picture, but on a smaller scale, I think the anticipation does have an impact because I feel more stressed out. I don't know what's worse, if the stuttering itself, or the anticipation, in terms of the quality of life. It might be similar. **(P9)**

Experience Summaries

Approximately four months after the first round of interviews were conducted with the participants, they each received an experience summary composed of snippets from their interviews meant to capture their unique experiences with contextual variability, anticipation, and stuttering in general. Participants largely agreed that what they had discussed in the interview accurately encompassed their lived experiences of stuttering anticipation, contextual variability, and stuttering as a whole (see participants' ratings in Table 1).

Of the 10 respondents, 7 "strongly agreed" with their experience summaries, which was reflected through commentary that ran along the lines of "my reflections were presented well, for sure," (P5) and "...the summary captured my authentic feelings on stuttering..." (P10). Among those who had broadly characterized their stuttering as being fairly consistent, however, some reflected on the incongruity between their thoughts and actions as they worked toward acceptance. For instance, 1 participant talked through their experiences with this thought-versus-action disconnect, saying "...I was projecting more the person who stutters that I want to be. I probably avoid, feel embarrassed, and get flustered more than I let on in the interview, I think that's a natural tendency of mine. So on one hand, I am proud that I'm still pushing myself and setting those expectations, but I recognize that it's a little far from the truth..." (P8).

From the 2 who reported that they "agreed" with their experience summaries, 1 individual felt that "...it fairly accurately describes how I feel toward my stuttering..." (P7), while the other participant stated, "...reading through this, I realized that I contradict myself a lot, but I think that itself is sort of representative of my experience with stuttering!" (P3). Another participant (P4) stated that they felt "neutral" toward their summary, explaining that

this was "...because my thoughts toward stuttering have been the same, despite the difficulties I've been experiencing with my speech over the past few months..." rather than because they felt that their experiences had been misrepresented. This response in particular emphasizes the importance of developing an understanding of the breadth of impact that objective and subjective experiences of stuttering can have on PWS. Further, it indicated why some individuals may find the variability of stuttering to be an especially disheartening aspect of stuttering, as it may be in direct conflict with how a they may wish to navigate difficult moments of stuttering from a purely logical (e.g., thought-oriented) standpoint.

Chapter 4

Discussion

Contextual variability and anticipation are two significant parts of the stuttering experience. This phenomenological investigation delineated several common themes across participant-centered descriptions, which supported findings from previous studies while providing greater clarity on the dynamic characteristics and nature of occurrence surrounding these distinctive experiences. The abundance of textual data derived from the current study revealed a myriad of concepts encompassed within these phenomena, facilitating the identification of potential points for elaboration through future research. Furthermore, the wide array of information attained from participant insights may improve the clinical precision with which stuttering variability and anticipation are addressed in therapy, as it reveals several aspects of the phenomena which may be well worth exploring. Due to the breadth of topics presented within the current discussion, additional possibilities regarding clinical applications will be addressed throughout the remainder of this section.

Contextual Variability

Experiencer-oriented descriptions of the phenomenon of contextual variability revealed a wide range of factors that they felt were associated with the ways in which their stuttering fluctuated across different timescales and situations. While some factors were described as precipitators of variability (i.e., consistently yielding an increase or decrease in stuttering), other factors (e.g., fatigue, strongly altered emotional states) were found to more generally influence overall stuttering frequency. Between the current investigation and prior studies, several commonalities, as well as some points of divergence, yielded important novel insights regarding the phenomena of inquiry.

All of the participants concurred that their stuttering fluctuated in some way across different contexts and/or timescales, further validating key findings that emerged from several studies on variability (Bloodstein, 1949, 1950, 1958; Constantino et al., 2016; Johnson & Inness, 1939; Johnson & Knott, 1937; Johnson & Millsapps, 1937; Sheehan, Hadley & Gould, 1967). Contextual variability is undoubtedly one of the defining characteristics of developmental stuttering. While the recurrent themes and sub-themes associated with variability identified within this study were similar to those outlined in the comprehensive reference *A Handbook on Stuttering* (Bloodstein & Ratner, 2008), particularly with regard to increased stuttering associated with the presence of cues (e.g., sound, word, environmental), there were also several disparities across these corpora of data. Perhaps the differences that arose between the themes of the present investigation compared with those highlighted within Bloodstein and Ratner (2008) are representative of different methodologies which were implemented throughout the processes of data acquisition and interpretation.

The vast majority of research on variability utilized to describe the themes found within the *Handbook* were mainly derived from listener-oriented observations of overt stuttering in situations within which the salient internal factors of stuttering (e.g., thoughts, emotions, etc.) encountered by the speakers were based on conjectures (Johnson & Rosen, 1937; Johnson & Sinn, 1937; Johnson & Solomon, 1937; Knott et al., 1937). Among the concepts presented in Bloodstein and Ratner (2008) is "communicative responsibility," which encompassed a body of research that catalogued how stuttering tends to increase on words or in situations in which higher degrees of meaningfulness or "propositionality" of speech are most prominent (Brown, 1937, 1945; Brown & Moren, 1945; Eisensen &

Horowitz, 1945). For instance, it was found that words at the beginning of phrases or sentences are stuttered more often, presumably because they contain more linguistic meaningfulness (i.e., propositionality) as compared to words occurring at the end, which are more predictable in nature. Similarly, content words (e.g., nouns, lexical verbs, adjectives) are stuttered more often than function words because they have more communicative meaning and, as such, are attended to more by listeners, thereby imposing increased "communicative responsibility" upon the speakers. Although both of the aforementioned concepts may be meaningful to explain the loci of stuttering from a conceptual standpoint (e.g., occurring more frequently at the beginning of utterances, and/or in situations implicating communicative responsibility), not a single participant in the present study described any factors related to their encounters with stuttering variability that aligned with the facets of communicative responsibility as described in the *Handbook*.

The theme of "perceived judgement" presented within the current investigation is akin to the theme of "Concern About Social Approval" outlined in Bloodstein and Ratner (2008), however, important differences exist between the concepts of social approval and perceived judgement. According to Social Approval Theory, social approval is "...behavior directed at gaining approval from significant others (e.g., coaches, parents). Social approval behavior is particularly apparent in young children and is characterized by the way children often work hard for approval from significant others..." (Kent, 2007, p. 326). Placed within the context of this definition, increased stuttering would be largely associated with instances in which one is trying to attain approval (e.g., create a positive overall impression) or attempting to 'save face' in some way to uphold their status (e.g., effectively establish, assert favorable aspects of their identity) with their listener. There are many cases, however, in

which a speaker may not care for the opinions a listener, yet still perceive palpable judgement on their part (e.g., when speaking with a stranger over the phone). Given that 8 of the 10 participants in this study explicitly used the term "judgment" to characterize this aspect of communicative interactions, while only 1 used the word "approval," the former may be more illustrative of their experiences on the whole. Thus, the term "judgment" may be more conducive to utilize in open dialogues during therapy, as it may better resonate with clients' experiences. All in all, the need for social approval is nearly universal and perhaps less amenable to intervention, while the subjective underpinnings of perceived judgment experience by PWS across varied social contexts (e.g., concomitant social anxiety, generalized fear of speaking) may be more apt to undergo therapeutic change (Craig et al., 2009; Craig & Tran, 2006; Helgadóttir, Menzies, Onslow, Packman, & O'Brian, 2014; Iverach & Rapee, 2014; Menzies, Packman, Onslow, O'Brian, Jones, & Helgadóttir, 2019).

The broad theme of "internal factors" as described by our participants highlighted the critical importance of acknowledging and validating an individual's subjective experiences. While not readily observable, these factors were highly salient and described extensively by all of the participants. The dearth of explanations and discussions surrounding the role of internal factors on stuttering presently found in the research literature further attests to the listener-centric focus which has been placed upon external factors (i.e., sound, word, and/or environmental-level cues) associated with increased stuttering (Johnson & Ainsworth, 1938; Johnson & Knott, 1937; Johnson & Millsapps, 1937). Of the sub-themes embedded within internal factors, participants highlighted physical and mental exhaustion as significant contributors to increased stuttering across contexts. Although this particular factor has been mentioned in the literature on stuttering, and frequently emerges in anecdotal accounts of

stuttering variability, little to no research has been conducted to investigate how fatigue may interact with the neural vulnerabilities associated with stuttering (Chow et al., 2018; Kollbrunner et al., 2014; Neef et al., 2015). By the same token, the ease with which PWS can often swear fluently, or speak with increased fluency while experiencing strongly altered emotional states (e.g., anger, rage) has not been scientifically explored. It is possible that swear words are semantically represented and executed via neural networks that are less impaired than the pathways commonly implicated in the speech production process, and the strong affective features of expressions of vexation may be facilitated through semblable means (Van Lancker & Cummings, 1999). Researchers could potentially capitalize on the consistency of these phenomena and their underlying characteristics, in order to further explore the neural underpinnings of stuttering (Etchell et al., 2018; Frigerio-Domingues & Drayna, 2017; Garnett et al., 2019).

The fluctuations in stuttering variability, coupled with the sheer randomness of its occurrence, was a significant overarching theme embedded within participants' experiences of stuttering. The essence of this conceptualization of randomness posits that there are several elements of stuttering variability that are not readily associated with perceivable factors (i.e., cues). This emerges in stark contrast to the dominant narratives yielded by early theories of stuttering, which proposed that stuttering was merely a response to cues. Though seemingly unexplainable, conversations about these unique aberrant fluctuations that may arise during the speech production process bears great clinical significance. In acknowledging that stuttering can occur unexpectedly, the current study sheds light on the limited efficacy and effectiveness of the speech strategies commonly taught in stuttering therapy, which for the most part are heavily contingent on an individual's ability to not only

anticipate stuttering, but preemptively modify their speech to reduce or eliminate overt stuttering. In a similar vein, the characterization of stuttering variability by some participants as a longer-term "ebb and flow," or cycles of increased and decreased levels of fluency, can serve to clarify the intermittent engagement in therapy and/or support group environments by some PWS, which is often misconstrued as a lack of "compliance" or adherence to treatment plans. Clinicians may see clients self-refer at times when they are experiencing a prolonged cycle of increased disfluency and are seeking out help to work towards a time in which their stuttering will be less difficult to cope with. As such, research that strives to develop a better understanding of what may contribute to these longer-term fluctuations may lead to more targeted treatments that properly integrate individualized strategies to navigate the challenges incurred by PWS as they navigate their experiences with stuttering variability.

An investigation on the variability of stuttering (Constantino et al., 2016) documented that, even within the span of a day, participants encountered marked fluctuations in their stuttering. Study findings also revealed that the degree of variability was negatively correlated with decreased quality of life. However, this research was not designed to explicitly address participants' views on whether variability was causally related to a decreased quality of life. This increased interest in exploring the extent to which the variability of stuttering influenced quality of life outcomes in PWS, if at all. Within the current investigation, none of the participants highlighted the variability of their stuttering as a facet of their experiences that served as a significant deterrent in their pursuit of a desired quality of life, engagement in social interactions, or as a negative catalyst in major life decisions (e.g., the pursuit of career paths entailing reduced speaking demands). In fact, variability on the whole was often met with a general sense indifference, which was notable

when compared with participants' discussions of the extent to which anticipation impacted their lives. Though variability surprised and frustrated participants at times, it was described by way of general observations and characteristics (e.g., as something that could be influenced by interactions involving certain sounds, words, people, or situations) as opposed to anticipation, which was described as an experience that encapsulated various well-defined cognitive thought processes, responses, and/or emotional states. Perhaps the relationship between this phenomenon and QoL outlined in Constantino et al. (2016) concerned factors independently related to both quality of life and variability, one of which, based upon participant accounts within our current study, could have been perceived judgment. Overall, the present investigation found that the increased prominence of perceived judgment within a given context was frequently associated with more frequent moments of stuttering, and a primary element of participants' descriptions of a poorer overall QoL. Thus, it is necessary to consider perceived judgment as a contextual factor which could potentially serve to adversely impact speakers' quality of life.

Clinically, acknowledging how PWS conceptualize variability for themselves facilitates a discussion among clinicians surrounding additional means to further enrich their knowledge and understanding of their clients' experiences with stuttering. Exploring how individuals encounter this phenomenon, while providing several means and opportunities for them to do so on their own terms, can help to provide clarity surrounding what they find to be the most challenging, puzzling, positive, or insignificant aspects of its occurrence. Within the current study, the individuals for which stuttering variability had more of an adverse impact were those who delineated its emergence of contextual across specific cycles, or time periods in which they encountered a notable increase in their stuttering. It was through these

cycles that some participants found themselves having to contend with a widespread negative alteration to their mental and/or emotional states (e.g., increased stress and/or anxiety, respectively) as they accumulated unpleasant experiences with greater frequency over the course of a more disfluent day, week, or month. Although characterizations of this phenomenon were not found to be especially detailed accounts of its occurrence, the variability was somewhat consistent in that it became more pervasive in situations that, relative to the speakers, entailed increased perceived judgment. As such, clinicians can work to gather an inventory of what aspects of these situations prove to be most relevant/of greatest significance to their clients, to equip them with feasible, practical strategies to work through these contexts in a more positive or adaptive way.

Anticipation

Findings derived from participants' depictions of anticipation facilitated substantial clarifications surrounding the pervasiveness and extent of impact on QoL brought on by both subjective and temporal aspects of the experience. Most notably, the conceptualization of the phenomenon via its occurrence over three distinctive timescales (i.e., detection, assessment, forecasting), allows for a more thorough dissection of its occurrence relative to an individuals' lived experiences. This in turn can yield a refined understanding regarding what facets of anticipation are most malleable to change within the context of stuttering treatment on an individualized basis. Additionally, supplemental insights regarding individuals' beliefs surrounding the nature of its interactions with variability, potential modulators of the experience, and changes in its prominence over time illuminated pertinent topics of discussion to address during clinical therapy sessions. Ensuring that the breadth of experiences incurred by the speaker are properly accounted for in therapy can strengthen

client-clinician alliances and positively alter the ways that they relate and respond to the phenomenon across contexts (Plexico et al., 2019; Plexico et al., 2005, 2010; Plexico et al., 2009a, 2009b).

In line with previous research, each of the participants indicated that the emergence of anticipation across short-term and long-term periods of time was a salient aspect of their experiences. Although recent explorations of the phenomenon (e.g., Jackson et al., 2015) have studied anticipation across short-term and long-term timescales, the current investigation made strides in describing the variable timescales of anticipation through discrete categories that have not, to the knowledge of the investigators, been previously discussed or described by the experiencers themselves. For instance, Wingate (1975) classed anticipation as an emerging awareness of impending moments of stuttering which were largely encompassed within immediate contexts of speech production. Similarly, Jackson et al., (2015) expanded upon the characteristics interwoven within this brief manifestation of anticipation via a breakdown of the anticipatory "action" versus "avoidance" response patterns that individuals could use to work through their encounters with the phenomenon. Findings presented within the present study, then, facilitated a refined understanding of stuttering anticipation, as the investigators provided descriptive terminology that will serve to better capture the entirety of this pervasive aspect of the stuttering experience, which was seldom addressed in earlier research.

As previously discussed, the temporal aspects of anticipation were largely limited to accounts of its manifestation across contexts characterized by their immediacy of occurrence. Within the present investigation, however, three unique timeframes in which anticipation may come about emerged from the data: "detection," which encompasses participants'

immediate or short-term encounters of anticipation during the speech production process (e.g., just prior to saying a word), "assessment," which involves the instances in which participants essentially take stock of the characteristics of a communication context that they have been unexpectedly immersed in (e.g., likelihood with which they will encounter moments of stuttering), and "forecasting," which has yielded insights on how this experience can come about over larger time scales that can serve to adversely impact an individual. This long-term immersion in the negative cognitive/affective states that can be brought about by anticipation can compel individuals who experience it to engage in avoidance at various levels. For instance, a speakers' engagement in forecasting can result in avoiding anything from a social event in which they anticipate having to make small talk with unfamiliar listeners, to ruling out the pursuit of career trajectories entailing increased speaking demands.

Anticipation, then, appears to be a far more impactful experience compared with contextual variability, as it can directly alter an individual's actions and serve as a potential hindrance to their engagement in day to day communication routines, thereby limiting the ways in which they interact with the world around them. Anticipation can impose significant constraints on the ways in which an individual works through a communication interaction (e.g., placing limits on the words they use, or the speakers with which they interact). As such, it is crucial to engage in an open dialogue with regard to individual's experiences with this phenomenon, to explore what communication contexts are truly relevant to the individual and gain cognizance of which aspects across these situations (e.g., cognitive and/or emotional states, reactions, listeners, etc.) are most meaningful to them.

Within the context of anticipation, the concept of "change over time" explored in our study sheds light on some additional noteworthy findings that can guide future clinical

decision-making surrounding both stuttering assessment and treatment. As individuals undergo the process working toward increasing acceptance of their stuttering and positive change (Plexico et al., 2005; Floyd et al., 2007), the extent to which they encounter stuttering anticipation is neither static nor linear in nature. Therefore, these changes surrounding anticipation (e.g., fluctuations in both its occurrence and defining characteristics) provide a well-founded justification for clinical approaches that are not merely focused on solely targeting a client's overt stuttering. To place such emphasis on addressing characteristics of stuttering that do not extend far beyond their surface manifestations would be doing clients an immense disservice.

Within the current study, participants' reflections on past therapy experiences during their interviews not only attested to the dynamic trajectories that change over time can take on, but also to the profound impact that engaging in open dialogues can have. For instance, one participant (P7) found that as they began to explore the impact of anticipation and variability on their lives in therapy, they were able to start on a path toward positive change. As they reflected on this experience, they stated, "In some of the group [sessions], I've talked about the idea that... I don't know how much of the way I've chosen to live my life is me as a person, or me because I stutter. The choices I've made, whether it be from the anticipation or the variability, is it me who likes to be by myself... who doesn't really care to have too many friends? Is that me as a person? Or because I feel like that stuttering has prohibited me from being closer to people?... I don't want [stuttering] to shape me in that way." Another participant recounted a small epiphany that came about during a support group meeting, saying, "...I think there's a lot of emotions wrapped up around stuttering, about the perceptions of the listeners... making assumptions about my intelligence purely based on the

way that I talk... in our most recent meeting, I was like 'oh, I worry what patients will think of me as a provider, I worry they'll think I'm not competent,'... it was interesting examining that worry... on paper, I really shouldn't worry about that... I feel confident in the way I communicate..." (P8). Globally, findings from the current investigation advocate for integrative treatment in which the client's autonomy can be facilitated via discussion and validation of their direct experiences with stuttering. This holistic, client-centered approach to therapy can cultivate successful client-clinician relationships founded upon mutual understanding, rather than on misconceptions and presuppositions with regards to stuttering and its accompanying subjective underpinnings (i.e., thoughts, emotions, beliefs). The underlying premise of the narrative therapy approach, for instance, lends itself incredibly well to this idea, as it offers a unique way of exploring stuttering from an insider's vantage point. Here, internal conceptualizations of the "self," (i.e., self-concept) in relation to factors that are significant to one's life (e.g., communication roles/expectations/pressures placed on the speaker at the societal level, impressions of "fluent" v. stuttered speech shaped by experiences with family/friends/etc.) can be personified, put into words, or spoken out loud however the experiencer sees fit.

This therapeutic framework gives proper weight to the intrinsic value of providing individuals with an environment in which they can begin to externalize the meaning which they have placed upon their lived experiences (O'Dwyer, Walsh, & Leahy, 2018). In many cases, this may involve the "extraction" of a largely internalized (i.e., subconscious) narrative that an individual has constructed to make sense of and relate to their stuttering as they navigate day to day life. As the narrative moves toward an individual's conscious mind, it can then be teased apart to identify components derived from both interpersonal sources (e.g.,

attitudes/impressions of stuttering held by significant others, strangers) as well as intrapersonal sources (e.g., thoughts/emotions about oneself, about one's stutter) which may have been shaped by the former (Logan, 2013; O'Dwyer et al., 2018). This process of examining and documenting the extent to which narrative components are entwined with one another acknowledges the dynamic, far-reaching influence that life experiences can have on how one perceives themselves and others around them (Cheasman, Everard, & Simpson, 2013). This is fruitful in that it allows the person to begin to reauthor their narratives through reflections that are rooted within their own perspective.

The opportunity to engage in moments of introspection during therapy can be of great value to individuals who have sought to work toward positive change in their lives (e.g., increased openness and acceptance of stuttering). As such, it is of paramount importance for clinicians to be willing to actively help their clients work through this process. The initiative to reauthor a narrative surrounding a salient aspect of one's identity can be a momentous undertaking. On the whole, narrative therapy strives to facilitate states of transparency and vulnerability surrounding what may oftentimes be sensitive topic. Articulating lived experiences, then, can prove to be a task that may call upon an inner voice which has been silenced or erased due to an individuals' repeated encounters with traumatic experiences, taboo and stigmatization (Boyle, 2018; O'Dwyer et al., 2018). The role of the clinician, then, entails a commitment to advocate for their clients and empower them to start on a path toward re-discovering and strengthening this voice at their own pace, while being receptive to whatever else they may find helpful as they move through their journey (e.g., opportunities to share journaled experiences in one-on-one or group discussions, as desired). Fostering an therapy environment characterized by mutually shared openness, authenticity, and support

can create a level of client-clinician reciprocity that, ideally, should be at the core of any positive therapeutic relationship.

As clients and clinicians engage in a collaborative process, continued explorations of the internal subjective components of the stuttering experience can provide additional direction regarding clinical frameworks worthwhile to implement during therapy sessions. The integration of principles set forth in Cognitive Behavior Therapy (e.g., allocating time to identify negatively inclined thought processes which can be discussed and reframed in a neutral or positive light) or Acceptance and Commitment Therapy (e.g., providing clients opportunities to increase their psychological flexibility and live life in accordance to their own values) introduces additional possibilities, as these can serve to mitigate the adverse impact of stuttering in practical ways (Freud, Levy-Kardash, Glick, & Ezrati-Vinacour, 2019; Menzies, O'Brian, Onslow, Packman, St. Clare, & Block, 2008). Incorporating elements of CBT and ACT within stuttering treatment may allow for therapeutic gains to extend beyond the confines of the clinical setting. Rather than characterizing success as instances of overtly fluent speech production, the practices underlying these therapies can prompt clinicians to include client empowerment within their conceptualizations of positive outcomes. These structured therapeutic frameworks can equip individuals with additional means to respond to moments of stuttering that may cultivate positive alterations in their thoughts, beliefs, and emotions toward stuttering. For instance, both CBT and ACT facilitate the practice of mindfulness (e.g., states of consciousness in which individuals acknowledge and accept their mental and emotional states as they emerge). Placed within the context of stuttering therapy, mindfulness can empower clients with increased mental and psychological flexibility to better navigate anticipation and variability, regardless of how these experiences may manifest

themselves (Bothe, Davidow, Bramlett, & Ingham, 2006; Boyle, 2011; Craig & Tran, 2014; Iverach, Menzies, Jones, O'Brian, Packman, & Onslow, 2011).

Investigations centered on exploring the potential applications of CBT and ACT in stuttering treatment have yielded evidence that these are helpful in promoting meaningful, long-term changes such as improved attitudes surrounding stuttering, elevated acceptance (of the "self" as well as of stuttering) positive coping strategies (e.g., self-efficacy, resilience), and greater therapeutic gains (e.g., Boyle, 2015; Craig, Blumgart, & Tran, 2011; Ezrati-Vinacour & Levin, 2004; Mongia, Gupta, Vijay, & Sadhu, 2019; Packman, 2012). As such, it is essential that clinicians strive toward treating the whole individual, while considering how changes over time can modulate the nature of the experiences that the phenomena of anticipation and variability can impart upon PWS across timeframes and situations.

Limitations and Future Directions

As a phenomenological investigation, the current study had an adequate number of participants, allowing the investigators to engage in an exploration of the phenomena of inquiry from a variety of unique individual perspectives. However, there are undoubtedly facets and experiences surrounding stuttering anticipation and contextual variability that were not encountered by these participants and therefore, remained uninvestigated. Future replication studies can serve to clarify and expand upon the diverse range of findings yielded by this investigation, while capturing additional insights that emerge across participant populations. This may also facilitate the construction of a questionnaire to examine the prevalence of recurrent themes surrounding these phenomena across a larger pool of speakers. Another potential limitation to the scope of this investigation may have been posed by the uniformity found across study participants with respect to their engagement in both

support groups and stuttering therapy. Thus, future research should probe whether individuals who do not have exposure to either of these experiences would conceptualize the nature and occurrence of anticipation and variability in similar ways.

Strengths of this investigation included the equal representation of genders within the participant population, as well as the inclusion of individuals from various age brackets. Nonetheless, the overall distribution of participants' age ranges was skewed toward young adults, with only one participant over the age of 35. Given the insights gleaned from the older participant regarding the changes they have encountered with respect to their degree of stuttering anticipation, further studies should include diverse age groups. This would allow for investigators to explore various stages of stuttering acceptance as they occur across the lifespan, while working toward a refined understanding of the factors that can contribute to changes in how individuals navigate the experience of anticipation.

Clinical Implications and Conclusions

The primary objectives of this study were to gain a well-rounded, speaker-oriented understanding to two important phenomena of stuttering, as well as detailed insights on how these may interact with each other and serve to impact the QoL of PWS. This study was greatly warranted, as it helped to expand upon what is presently known about variability and anticipation. Historically, both of these experiences have been described exclusively from interlocutors' perspectives, a practice which has popularized vague, borderline pathological definitions that neither researchers nor PWS agree upon. Attributing equal weight to experiencers' encounters creates opportunities to yield more balanced, enriched perspectives of the phenomena. The diverse range of speaker accounts which comprised the findings of the current investigation clarified the complex, multifactorial nature of several factors

entwined within these internal experiences of stuttering which have gone on relatively unaccounted for. These insights elaborate on presiding definitions of stuttering which have largely drawn associations between stuttering variability with the response to external cues, and the anticipation of stuttering to the near instantaneous cognizance of impeding stuttering that may occur just prior to speaking.

The descriptions derived from participant interviews conducted within the present study can inform clinicians, especially those less experienced with stuttering, to better understand the experience of their clients. This, in turn, can increase their aptitude to work with clients to identify speaker-centered goals that empower clients to navigate clinical treatment sessions, and the social world at large, on their own terms. Finally, the clarification of internal factors and perceived judgments associated with stuttering variability, in conjunction with the novel terminology regarding the timescales embedded within stuttering anticipation, will yield further advancements in research endeavors. Collectively, previous and forthcoming qualitative explorations of these phenomena will make significant strides toward capturing the lived experiences of people who stutter in all their forms.

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Appendix A

Demographic and History Form

Participant ID: _____ **Date:** _____

Age: _____ **Gender:** _____ **Ethnicity:** _____

1) **Is English your first language?**

   Circle one: YES NO

2) **Have you ever been told that you have a hearing impairment?**

   Circle one: YES NO

3) **Have you been diagnosed with any speech or language disorders *besides* stuttering?**

   Circle one: YES NO

   If you circled YES, please describe:

4) **What is the highest level of school that you have completed?**

   Circle one: Less than high school degree

   High school degree or equivalent

   Some college but no degree

   Associate degree

   Bachelor's degree

   Graduate degree

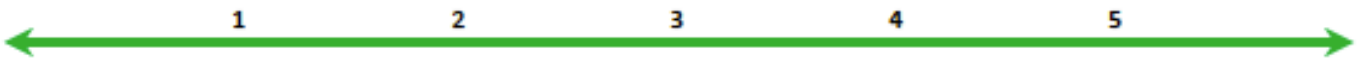
Appendix A (cont'd)

5) Please indicate when your stuttering ***began*** (the approximate age of onset): _____

6) ***In your own words, describe how you stutter*** (e.g., repeating sounds, blocking on words, etc.):

7) When does your stuttering tend to occur most frequently (e.g., when talking alone, when talking to new people, when giving speeches, etc.)? Please describe:

8) Please rate the severity of your stuttering ***from your perspective***, on a scale of 1-5 by circling a number below:



Very Mild Mild Moderate Severe Very Severe

9) Have you ever received therapy for your stuttering/Are you currently receiving therapy?

Circle one: YES NO

If you responded **YES** above, please rate how **helpful** therapy was (OR is) for you on a scale of 1-10 by circling a number below:

Not at all Helpful — Very Helpful

Appendix A (cont'd)

10) What did you ***like*** (OR currently like) about therapy (e.g., what is **helpful** for you)?

11) What did you ***dislike*** (OR currently dislike) about therapy (e.g., what is **unhelpful** for you)?

12) How long have you received (OR are currently receiving) therapy?

13) Have you ever attended a stuttering support group/Are you currently attending one?

Circle one: YES NO

If **YES**, please describe the following:

a. How ***frequently*** you were (OR are) attending the support group:

b. What you ***liked*** (OR like) about the support group:

c. What you ***disliked*** (OR dislike) about the support group:

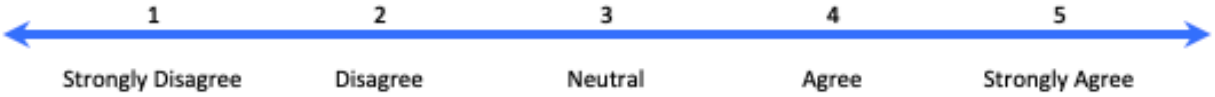
Appendix B

Stuttering Self-Acceptance Scale

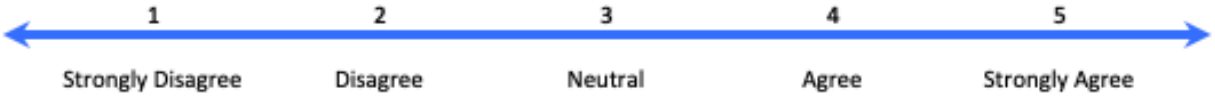
By Thales De Nardo, Rodney M. Gabel, John A. Tetnowski, & Eric R. Swartz

DIRECTIONS: Below are five statements with which you may agree/disagree. Under each one, circle the number on the line scale that best aligns with your level of agreement/disagreement. Please respond as openly and honestly as possible.

Stuttering prevents me from doing things I want.



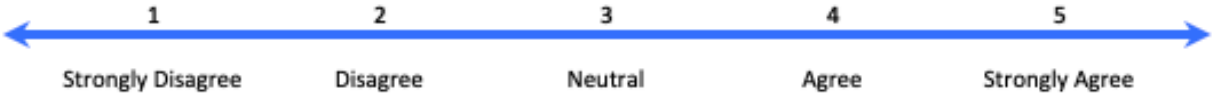
Stuttering affects those aspects of my life that I care most about.



A person who stutters is no different than anyone else.

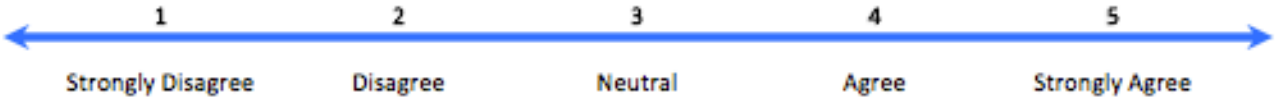
Stuttering is so overwhelming to me that I cannot enjoy anything.

It is important for me to accept myself as I am.

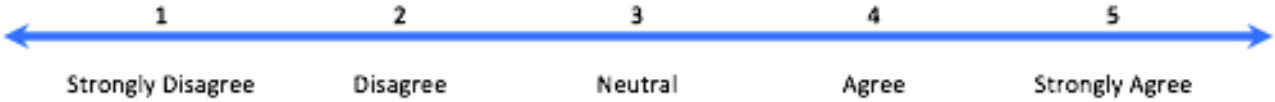


Appendix B (cont'd)

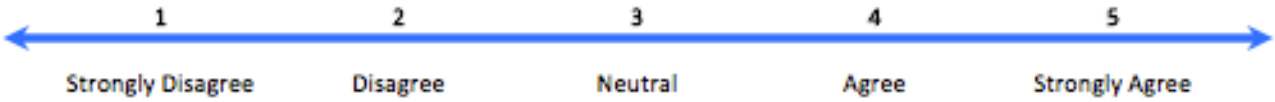
I feel I am able to offer a lot to other people.



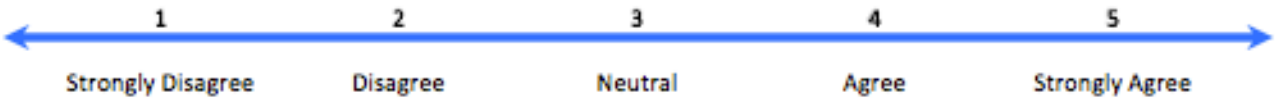
Stuttering has disrupted my life greatly.



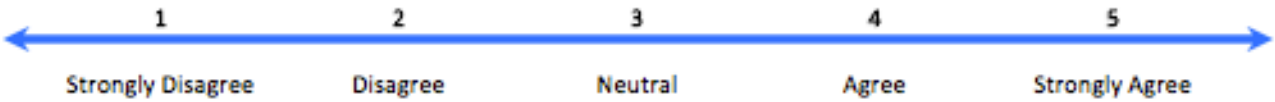
Stuttering does not interfere with achieving what I want to do.



I feel OK about talking about my stuttering with others.



A person who stutters can enjoy many things in life.



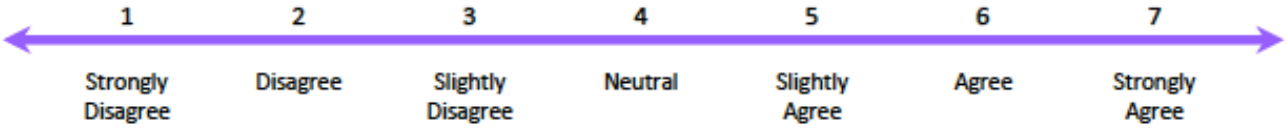
Appendix C

Satisfaction with Life Scale

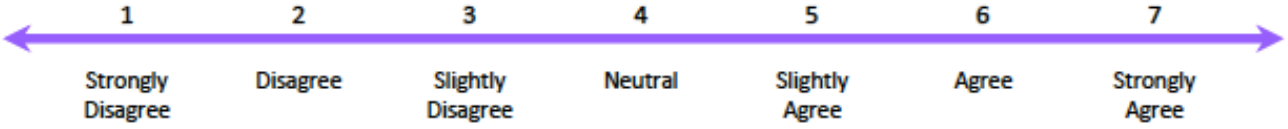
By Ed Diener, Robert Emmons, Randy Larsen & Sharon Griffin

DIRECTIONS: Below are five statements with which you may agree/disagree. Under each one, circle the number on the line scale that best aligns with your level of agreement/disagreement. Please respond as openly and honestly as possible.

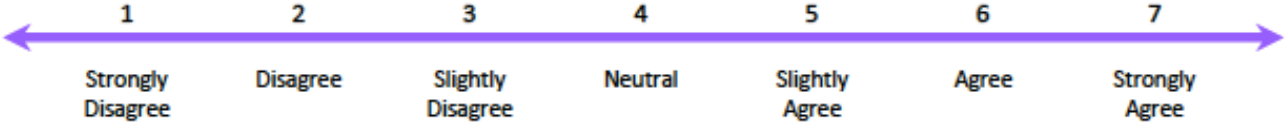
In most ways, my life is close to ideal.



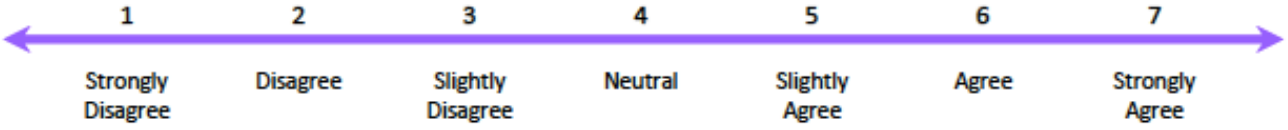
The conditions of my life are excellent.



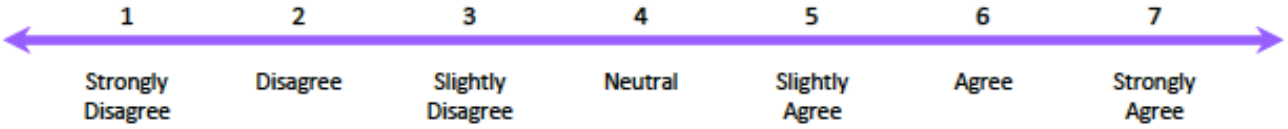
I am satisfied with my life.



So far, I have gotten the important things I want in life.



If I could live my life over, I would change almost nothing.



Appendix D

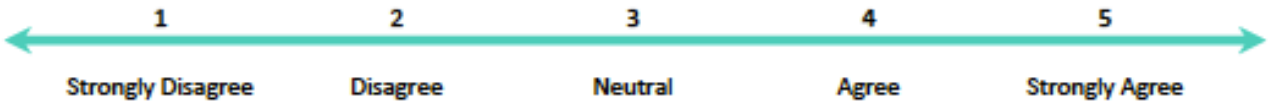
Anticipation of Stuttering Questionnaire

By Richard Arenas, Ph.D.

DIRECTIONS: Below are five statements with which you may agree/disagree. Under each one, circle the number on the line scale that best aligns with your level of agreement/disagreement. Please respond as openly and honestly as possible.

I sometimes anticipate that I will stutter on words before I say them.

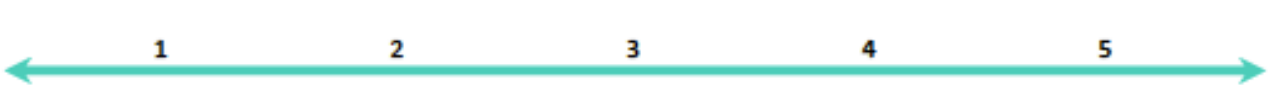
I consistently anticipate stuttering on particular words (e.g., my name).



There are certain sounds that I anticipate stuttering on more than other sounds.

I anticipate stuttering more when speaking to certain people or in certain situations.

I believe that anticipating that I am going to stutter increases the likelihood that I will stutter.



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