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EFFECT OF SELF-DISCLOSURE OF STAMMERING ON LISTENERS' PERCEPTIONS

BY

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DECLARATION

I, PRISCILLA KEREN TETTEH do hereby declare that this dissertation which is being submitted in fulfilment of the requirements for the Master of science degree in Speech and Language therapy is entirely my own work performed under supervision, and that all sources accessed are duly referenced, this work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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PROCEEDAMUS

DEDICATION

I dedicate this work to God Almighty for the wisdom given. To Mr Alexander Adupa, Okatakyie
Adupa and Kymathi Adupa.



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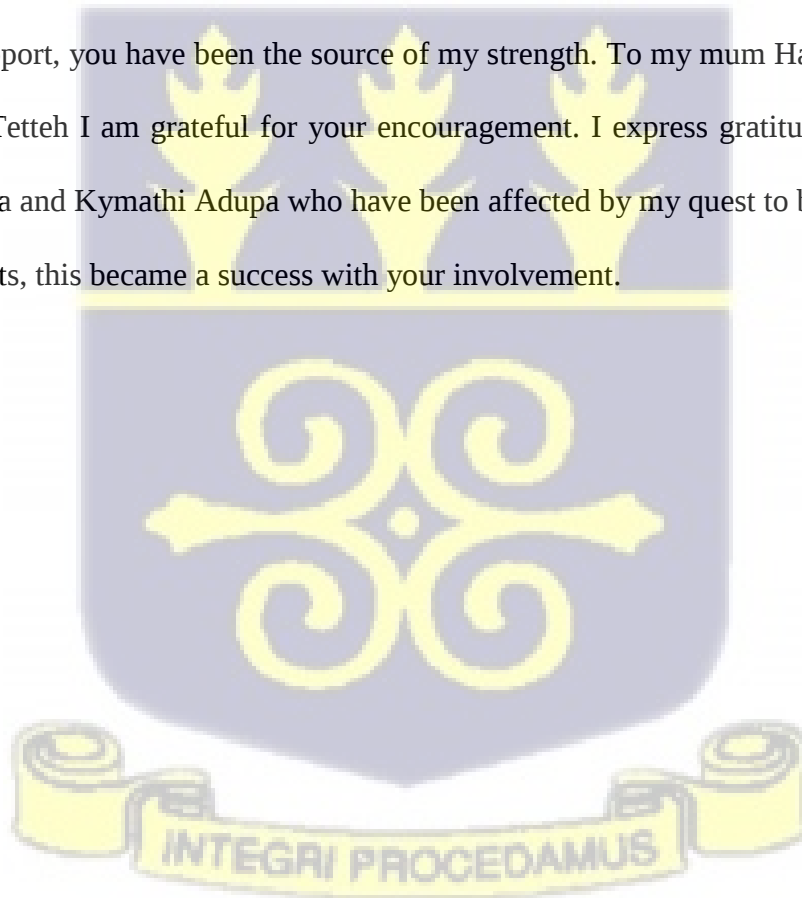


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LIST OF ABBREVIATIONS

PWS - Person(s) who stammer

AWS - Adult(s) who stammer

SLT - Speech and language therapist



ABSTRACT

Background: Adults who stammer (AWS) experience discomfort when engaging in social interactions. Their stammering status negatively affect how their listeners perceive and engage with them. Listener perception therefore leads to several negative consequences like social anxiety and low self-esteem among persons who stammer (PWS). Self-disclosure is one of the leading therapies recommended for PWS to improve their listeners' perception of them. However, evidence is inconclusive on its effectiveness, and empirical evidence in Ghana is non-existent.

Aim: This study investigated how self-disclosure and gender affect listeners' perceptions towards AWS.

Method: A convenient sample of 210 undergraduate students listened to 4 videos from two speakers (1 male and 1 female) narrating a scene from a popular movie. The male and the female speaker each did or did not self-disclosed their stammering status. The listeners then rated their perceptions of the speakers' personality, communication intent, communication competence and social competence. A 2-Way MANOVA was used to estimate main and interaction effects of self-disclosure and gender on listener perception.

Results: Self-disclosure had positive effect on perceived communication intent, communication competence and social competence, but not personality. Female AWS were rated more favourably on communication competence and social competence than males. Male AWS were rated more positively on communication intent. There was significant interaction effect of gender and disclosure on listener perceptions. Female AWS who disclosed their status were rated more favourably than men who disclosed on perceived communication intent.

Conclusion: The effectiveness of self-disclosure on listener perception depends on the perceived intent of the communication and gender of the AWS.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Stammering is a universal phenomenon that exists in all cultures, regardless of race, income, gender, and educational level. It is estimated that the life span incidence of stammering is 8% (Yairi & Ambrose, 2013) and 1% among adults (Boyle & Gabel, 2020). Stammering is a speech disorder that impact's speech fluency. It is characterized by involuntary sound or syllable repetitions (p-p-p-puppy), prolongations (mmmummy) and sometimes pauses, substitution and avoidance of words (Neef et al., 2015). In other words, persons who stammer are unable to adapt their speaking intensity sufficiently to the syntactic or moment of phonological demand (Mancinelli, 2019a)

Stammering does not only cause disruptions in the forward flow of speech but also due to its prominence, it causes listener-speaker discomfort (Smith, 2018). If language development is relatively easy, persons who stammer (PWS) can produce fluent and intelligible expression (McGill et al., 2018). When the requirements for language development are more variable, the speaking intensity should be tailored to the difficulty of the task. PWS appear to have difficulty doing so (McGill et al., 2018). The failure of PWS to monitor the speaker performance contributes to a degree of difference that is greater than normal or to other speech errors (Boyle & Gabel, 2020).

Dysfluency contains repetitive movement and rhythmic voice flow abnormalities with inappropriately patterned sounds, syllables and words in time; these take the form of sound and syllable repetitions (e.g. ba-ba-ba-ba), sound prolongations (e.g. nnnnnany), and word or sound blocks (pauses before or during a word or sound). There have been diverse opinions and theories on the causes of stammering. The root causes of stammering “have been attributed to a number of factors such as neurological problems, emotional problems, inappropriate reactions by caregivers and family members, language planning, and speech motor difficulties, among others” (Lee & Manning, 2010). Stammering, as a consequence of abnormal brain function and differences of morphology, is a neurological condition that impairs motor control (Neef et al., 2015).

Perceptions and understanding of stammering have changed over the years. Stammered speech is believed to conceal an unspeakable thought. In the 1840’s stammering was believed to have had a biological cause and developed from weak tongue which led to tongue elevation surgeries. Other proponents of this theory asserted that it resulted from incomplete cerebral dominance. Researchers like Zimmermann examined motor control and processing of PWS and concluded that it was a disorder of movement. The behaviourists believe stammering is a learnt behaviour however, this theory took a new dimension when Wendell Johnson proposed the diagnosogenic theory that stated that stammering begins when parents overreact to their child’s normal disfluencies. The child attempts to avoid the disfluencies and, in the struggle to do that stammering develops. That is, children anticipate negative reactions from parents which complicates the stammering (Ambrose, 2004).

Differences in stammering prompted researchers to recognise different stammering subtypes including dysphasic, mechanical, linguistic, dysarthric and dysrhythmic (Ward, 2006). Some researchers have identified two forms of stammering which are “phonological and syntactic” (Van

Zaalen, 2009). Thought preparation and formulating problems would suggest phonological stammering, whilst swift and ambiguous voice would imply syntactic stammering. Syntactic stammering relates to issues with high speech level in grammatical decoding and phrase retrieval. The issues are expressed by natural disfluencies, such as repetitions of words and phrases, interjections, revisions, and hesitations (van Zaalen, 2009). In linguistically complex situations, these signs occur more frequently. Phonological dysfunction, according to van Zaalen (2009), refers to encoding issues and it is characterised by a speedy speaking rate, particularly in multisyllabic words, in word structural errors (e.g. coarticulation) or in syllabic sequencing errors. In linguistically impaired speech situations, phonological clutter effects are more severe and syntactic impairing.

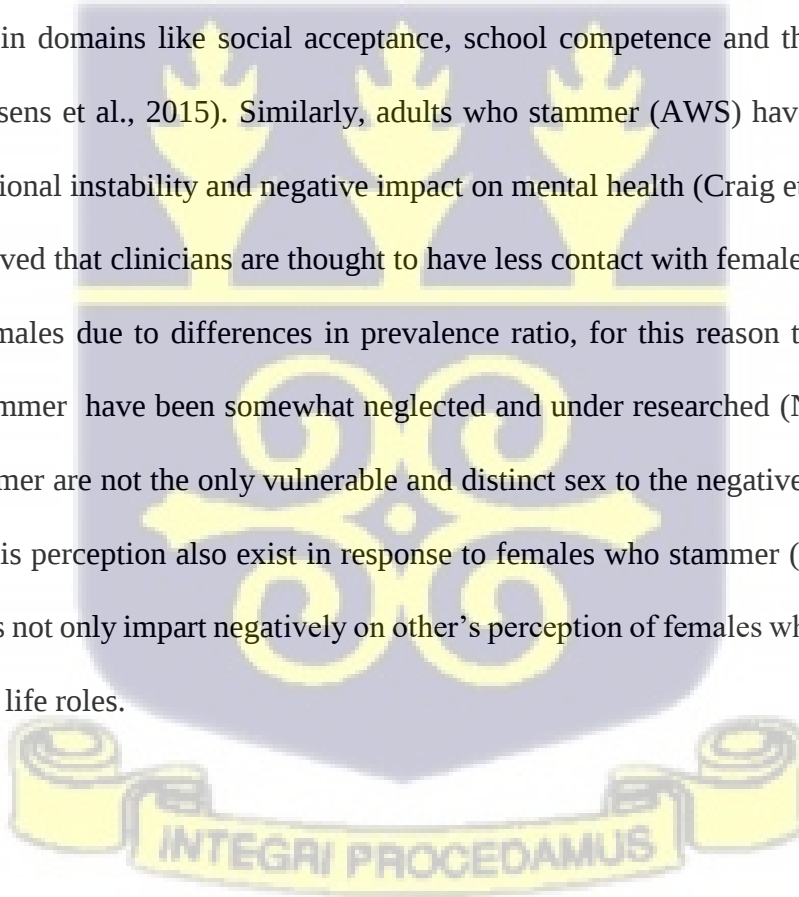
1.1.1 Listeners' Perceptions of People Who Stammer

The current study focuses attention on the dynamics of changing listeners' perceptions towards individuals who stammer in Ghana. One key area of stammering where research is fast advancing in the last two decades is the area of perception and reaction of listeners towards PWS. Listeners often harbour negative attitudes towards persons who stammer (PWS) and these attitudes shown by listeners are perhaps due to their inadequate understanding of the stammering conditions as well as the and the experiences PWS go through (Healey, 2010a). Persons who stammer across decades have been regarded as insecure, introverted, withdrawn, tense and fearful by types of listeners (Manning, 2010). The different types of listeners include listeners with different characteristics such as professional backgrounds, age, those with knowledge about stammering and those with little or no knowledge. Perception and attitudes towards persons who stammer are not exclusive to adults.

However, children as young as pre-schoolers show awareness of dysfluent speech, negative attitudes towards peers who stammer and have preference for fluent speech. This highlights the need for early child education of stammering and how children can respond appropriately to peers who stammer (Weidner et al., 2015). It is not uncommon to hear PWS report of how fearful they are of how others would react to their stammering; the fear of being bullied, and being thought of as foolish or appearing unintelligent (Healey, 2010b).

From clinic experience, stammering may have an impact on an individual's social life (such as participating in a class presentation) and job-related task (Packman, 2012). It has an impact on the self-esteem of adolescents such that adolescents who saw their stammering as more severe had low self-esteem in domains like social acceptance, school competence and the ability to make friends (Adriaenssens et al., 2015). Similarly, adults who stammer (AWS) have a greater risk of developing emotional instability and negative impact on mental health (Craig et al., 2009).

It has been observed that clinicians are thought to have less contact with females who stammer as compared with males due to differences in prevalence ratio, for this reason the experiences of females who stammer have been somewhat neglected and under researched (Nang et al., 2018). Males who stammer are not the only vulnerable and distinct sex to the negative perceptions from their listeners, this perception also exist in response to females who stammer (Lass et al., 1992). Stammering does not only impart negatively on other's perception of females who stammer, it also impedes on their life roles.



1.1.2 Self-disclosure as therapy for PWS

Currently there are many direct and indirect stammering therapies available to PWS. Direct therapy includes teaching the person who stammers any form of strategies to reduce dysfluent speech (Adriaenssens et al., 2015). The therapist works directly with the person who stammers to either reduce their dysfluent speech or work on their emotional responses to the stammering such as avoiding some words that can trigger a stammer. Indirect therapy focuses on counselling families and others around the client e.g., parents, siblings, peers, colleagues at work and other places (Fromme, 2011).

These therapies are intended to either enhance fluency or to alleviate the psychological and/social concomitant behaviours of stammering such as reduced confidence, social anxiety, and avoidance behaviour. However, there has not been much research into these treatments therefore there is little consensus about which to use (Packman, 2012). The World Health Organization provides a framework to guide clinicians and the public to have a better understanding of the condition and its impact when interacting with person's who stammer. It holistically examines the conditions and takes into consideration individual and environmental barriers influencing a person's engagement in an activity and participation (Yaruss, 2007). Listener reaction is one of the environmental factors identified to negatively impact stammering. How then would a PWS influence this environmental factor and to what extent can it be controlled? This is a question most research across the globe seeks to answer.

Disclosure has been identified as an effective tool used by PWS to gain control of their speech and to some extent have the attention of audience. Disclosure, a form of intervention is often used to reduce the fear of talking and avoidance of perceived sounds and words that trigger stammering in PWS and thus it forms integral part of the stammering management approach. SLT's often counsel

PWS to disclose that they stammer before giving a speech, presenting, or interacting with another individual. “The concept that you cannot change something until you accept it is a necessary component in the change process according to acceptance, commitment therapy and cognitive behavioural therapy, mindfulness approaches and gestalt therapy; this applies to fluency disorders and other conditions” (Fromme, 2011).

The line of this research is to give further proof and evidence to the idea that self-disclosure, a technique used by PWS helps to reduce anxiety by changing listener perception. Boyle et al (2018) in their research asserted that there is a positive correlation between quality of life and disclosure of stammering. Some researchers also suggest that before speech therapy becomes a success, there must be a solution to the psychosocial aspect of stammering (Packman, 2012). Gender bias is noticed when the utility of self-disclosure and controlled speaker’s sex/ gender is explored. Research has shown that under undisclosed state females who stammer are rated positively compared to males who stammer, similarly under a self-disclosed state “listener perception is seen as a sex-specific phenomenon” therefore, females are likely to be perceived positively in some domains such as having a positive personality as compared to adult males who stammer (Bajaj et al., 2017). Whereas some research shows that males are rated positively under disclosed state as compared to females (Bryd et al. 2017), some show no significant interaction between self-disclosure and gender when controlled, these two factors have independent, un-related influence on listener perception (Reed, 2014).

According to Bajaj and colleagues, it is better for clinicians during intervention to consider factors like sex, work, culture, and environment before employing the tool of self-disclosure because these factors play a role in regulating some aspects of negative perceptions (Bajaj et al., 2017). For there is evidence in research on how essential it is for clinicians when planning an intervention to

consider sex and/or gender as one of the determinants that can influence the health of a population (Simon, 2005, as cited in Nang et al., 2018)

1.2 Statement of the Problem

Stammering is a serious problem in Ghana. Even though statistics on PWS in Ghana is non-existent, stammering constitutes one of the key speech disorders in Ghana. The social spaces in Ghana have historically been hostile and non-supportive towards PWS. For instance, stammering has become one of the key elements of comedy in the Ghanaian media, used by stand-up comedians, local movies, and contemporary video skits. In essence, people profit from what is rather a disorder that needs care and management. The situation creates social spaces that expose PWS to ridicule, laughter, and impatience on the part of listeners in Ghana, thereby increasing anxiety of PWS in their everyday communication and social engagements.

Disclosure still remains one of the key techniques used by speech and language therapists (SLT) in helping adults who stammer to manage their anxiety in social engagements (Boyle & Gabel, 2020; Byrd et al., 2017; Mancinelli, 2019b). There is theoretical argument that disclosing stammering status to listeners may improve the perception listeners form about PWS, thereby reducing anxiety and improving self-confidence among PWS (Mancinelli, 2019b; McGill et al., 2018). Speech and language practitioners therefore often urge AWS to pursue techniques like appreciation and acceptance of the stammering condition, employing slowed speech, easy onset pause and rephrase and disclosure technique in interacting with their communication partners (Lee & Manning, 2010; Mancinelli, 2019).

However, there are two fundamental gaps in literature that need to be addressed. First, while self-disclosure may produce positive attitudes from listeners sometimes, empirical evidence is inconclusive regarding the positive attitudes from listeners (Bajaj et al., 2017). Secondly, all existing empirical studies on the efficacy of self-disclosure in improving listener perception come from high-income western countries. Given the fact that the experiences and perception of stammering are shaped within sociocultural contexts, existing evidence on the efficacy of self-disclosure in stammering may not directly translate into the Ghanaian context.

In Ghana, people openly tease persons who stammer. Some comedians mimic stammering on stage to create fun. Therefore, self-disclosure may not be as efficient as it is in some other countries where stammering is seen as a disorder, hence not something that should be subjected to teasing. There is, therefore, the need for context-based research in Ghana to inform practice and advance knowledge. This study therefore, seeks to find out how self-disclosure of stammering by an adult who stammers affects a listener's perception in the Ghanaian context, and to determine if listeners have the tendency to favour females in their ratings as compared to males because data for such comparison does not exist and whether it would be a useful tool when planning speech interventions with persons who stammer.

1.3 Aim and Objectives

The study aimed at assessing the impact of disclosure of stammering on the perception of listeners.

The study objectives were as follows:

1. To examine whether the perception of listeners of adult who stammer will be influenced by self-disclosure.
2. To determine whether the perception of listeners will differ based on the gender of the speaker.
3. To examine the perceptions of the listener in AWS in terms of self- disclosure and gender.

1.4 Hypotheses

Based on the objectives of the study, the following hypotheses are tested:

H1: AWS who disclose their stammering status will be perceived significantly more positively by listeners than those who do not disclose

H2: Females AWS will be significantly perceived more positively by the listeners than males AWS

H3: Female AWS who disclose their stammering will be perceived significantly more positively by listeners than male AWS who disclose their stammering

1.5 Scope of the Study

This study focuses on improving listener perceptions of AWS in Ghana, and how self-disclosure can contribute to achieving that. Fundamentally, the study tests whether AWS who self-disclose their stammering status are perceived more significantly by listeners as compared to those who do not self-disclose. Gender of the AWS is also examined to find out the role it plays in the association between self-disclosure and listener perception. The study is quasi-experimental where selected

AWS are made to record a video of themselves recounting a popular movie, under different disclosure conditions. The scope of the study therefore focuses on the disclosure of stammering status and gender of the AWS. For this reason, this research controls all other possible extraneous variables such as the gender of the listener, stammering status of the listener, whether the listener has close friends or relatives who stammer

1.6 Significance of the Study

The study provides significant insights into the context of therapies for managing stammering among adults in Ghana. The findings have implications, both in terms of practice and research. In terms of practice, the study helps both Speech and Language Therapy practitioners and their AWS clients. The findings speak to the relevance of the use of self-disclosure in managing social anxiety and improving communication and confidence among AWS. The study therefore provides evidence-based findings within the Ghanaian context to encourage a collaborative decision making in assessment and planning an intervention for AWS in Ghana. The study helps Speech and Language Therapists to identify the fact that some communication partners can be environmental barriers impacting on the quality of life of AWS. The findings also have implications for AWS themselves in managing their anxiety in social communications to improve their quality of life.

The findings of the study also contribute to advancing knowledge in the care and management of stammering among adults. Research on stammering in general, and on the role of self-disclosure are not well established in Ghana. As a result, much of the knowledge drawn on in the management of stammering through disclosure in Ghana draws on research evidence outside Ghana. While such studies provide practical insights into stammering management, critical context-based factors may be missing. The current study therefore establishes disclosure and listener perception in

stammering research in Ghana. It serves as a useful source of reference material for current and future researchers, students, policy makers, government and stakeholders involved in the management and care of AWS in Ghana.

1.7 Organization of Chapters

This study has five main chapters. Chapter One entails the introduction to the study. It covers the background, the problem statement, the aims and objectives of the study, research questions, scope of the study, significance of the study, and organization of the study.

Chapter Two consists of the literature review which includes relevant theories and literature on the concepts of stammering, self-disclosure and listener perceptions. The chapter also presents reviews pertinent theoretical literature in relation to social perception. Empirical studies on disclosure and listener perception and the reviewed, and summary of the literature provided.

Chapter Three presents the research methodology and study framework, and outlines the analytical strategies that were adopted for the study. The methodology chapter also describes the research design, research setting, population, sampling technique and data collection methods. It also provides the procedure for data collection and analysis as well as the ethical principles that were adhered to.

The results of the study were stated and analysed in chapter four. This chapter further presents discussions of results obtained in relation to relevant literature.

Chapter five which is the final chapter includes the summary, conclusions and recommendations. It also establishes future research direction, provides a number of practical implications, and concluded with recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents discussions of the current state of theoretical and empirical literature on stammering and self-disclosure. The chapter is structured as follows. First, the theoretical framework that informs the study is discussed. The empirical literature is then discussed in presenting evidence from related studies. The rationale for the study is then discussed and summary provided.

2.2 Theoretical Framework

Even though empirical research on stammering and self-disclosure is growing steadily, theoretical development in the research area still lags behind. Many of the empirical studies on self-disclosure and stammering do not provide the theoretical basis of their studies. However, as argued by researchers such as Boyle and Gabel (2020), Mancinelli (2019) and Klemm (2014), a critical entry point into understanding the process of disclosure among people who stammer, is the theory of social perception. The theory of Social perception provides context for understanding how listeners perceive individuals who stammer, and how disclosure or non-disclosure impacts the listeners' perceptions. In the current study therefore, Social Perception Theory is used as the theoretical framework.

2.2.1 Social Perception Theory

The Social Perception Theory (SPT) is a social psychological theory that explains how individuals make inferences and form impressions of other people in everyday social interactions (Forgas, 1992 ; Lilli & Frey, 1993). The theory argues that, in forming perceptions or impressions of others, individuals use variety of both verbal and non-verbal social cues to make judgements (McArthur & Baron, 1983), regarding social roles, rules, relationships, context, or the characteristics (e.g., trustworthiness) of others (Freeman, Stoller & Brooks, 2020).

According to the social perception theory, there are four key processes involved in forming perceptions of others; observation, attribution, integration and confirmation (Pandit, 2017). Each of these processes play specific roles in forming impressions or perceptions. Observation helps individuals to gather data or information to form impressions or perceptions of others (Neuberg & Sng, 2013). Three factors are considered in the observation process – person, situation and behaviour (Freeman et al., 2020). The physical characteristics or qualities of the person is first observed such as gender, age, skin colour among others. Apart from the physical person, the situation within which the person is participating is also observed. Lastly, the specific behaviour that the person is enacting in the situation is also observed (Freeman et al., 2020).

After gathering data from observations, attribution process also occurs, where individuals try to assign a cause or reason for the person, situation and behaviour they observed (Neuberg & Sng, 2013). Two forms of attributions are usually made in social perceptions – either personal attribution or situational attributions (Mancinelli, 2019). Personal attribution is when individuals attribute the cause of a behaviour to the inner dispositions of the person they observed (Freeman et al., 2020). Situational attribution is when individuals attributes the cause of a behaviour to the situation of the person they observed (Freeman et al., 2020). After attribution, then come

integration and confirmation. In forming perceptions, individuals integrate all available information about the impact of personal or situational attributions into a unified impression (Forgas, 1992). To finally confirm these impressions, people try to understand, find, and create information in the form of various biases (Lilli & Frey, 1993).

In applying the social perception theory to this study, listeners' perception of PWS is informed by their observation, attribution, integration and confirmation. Listeners' observe who the PWS is as a person, the situation within which the PWS is participating and the behaviour being demonstrated. In the current study, self-disclosure is hypothesized to shape listeners' observation and influence their attribution. By so doing, the listeners are expected to rate positive attitudes towards PWS who self-disclose, as compared to those who do not.

2.3 Review of Empirical Studies

There is limited empirical literature on self-disclosure and listener perception. The first empirical experimental study emerged in 1990 (Collins & Blood, 1990). From there, empirical experimental studies waned, until 2007 when a replication study was published (Healey, Gabel, Daniels & Kawai, 2007). Since 2007, empirical studies establishing a causal link between self-disclosure and listener perception have seen a steady increase. This section presents a review and discussion of empirical studies that have investigated self-disclosure and listeners' perceptions, as well as the role gender plays in the association between self-disclosure and listeners' perceptions.

2.3.1 Self-disclosures in Stammering and Listeners' Perception

According to the WHO (2006), stammering is an oral breaks that interrupt the rhythm of speech through unwanted repetitions and prolongations of syllables, sounds, phrases or words as well as

involuntary silent blockages or breaks that prohibit the stammering individual from making sounds. It can have a serious impact on a person's working and emotional state. These may include self-imposed isolation, fear of certain vowels or consonants, fears of being caught stammering in social situations, being a possible target of bullying (especially in children), anxiety, shame, stress, low self-esteem, the use of word substitution and the re-arrangement of words in the cover of a stammer or a feeling of loss of control when speaking.

One of the primary goals of interventions to tackle social anxiety appears to be strengthening mental health status of individuals who stammer. Nonetheless, when undergoing treatment, more than half of adults who stammer mention gains in fluency in speech as their main objective (Venkatagiri, 2009). A number of people who stammer fear speech disorder so much that they take great effort to hide it by using avoidance methods; the stammering is called 'covert', 'interiorised' or 'masked' in these cases (Cheasman, Everard, Simpson, 2013; Onslow, 2016). Evidence recently demonstrates that before speech therapy becomes a success, there has to be a solution to the psychosocial aspect of stammering (Cheasman et al., 2013; Packman, 2012). Speech fluency should be included in the development of social anxiety therapies in this group of people as a secondary outcome indicator in terms of the clear connection between anxiety and fluency of expression.

Research shows that listener reactions towards stammering can affect stammering behaviour and negative stereotypical attitudes that persist towards PWS (Guntupalli et al., 2007). Negative social experiences of stammering individuals are prevalent among a number of listeners like instructors in schools, college students and high school students (Flynn & Louis, 2011; Hennessey Dourado & Beilby, 2014). Whereas there is a strong proof that past experience with stammering reduces negative social interactions (Betz, Blood & Blood, 2008), findings have shown that there are biases

even among PWS towards, for example members of a speech and language therapy programme and those with exposure to or previous experience with stammers (Allard & Williams, 2008; Alm, 2014).

During stammering appraisal and treatment, some researchers identified the experience of listeners as being central (Bloodstein & Ratner, 2008; Van, 1982). A study by Guntupalli and colleagues compared the emotional and physiological responses of fluent speakers while they observed and listened to fluent and severe stuttered speech samples. The outcome of their study “showed significantly increased skin conductance and lower mean heart rate of participants during the presentation of stuttered speech relative to the presentation of fluent speech samples ($p < 0.05$). The listeners also rated themselves as being more aroused, unhappy, nervous, uncomfortable, sad, tensed, unpleasant, avoiding, embarrassed, and annoyed while listening to the speech samples of PWS compared to the control group” (Guntupalli et al., 2007).

One component of this negative perception may emerge from the frustration or confusion of a participant about AWS and/or how to respond when stammering happens in the context of a contact encounter. Studies such as by Flynn and Louis (2011) have well established that encounters with PWS produce negative perceptions and biases in listeners. These negative social experiences are common and impact on children and adolescents as well (Abdalla & Louis, 2012; Al-Khaledi, Lincoln, McCabe, Packman, Alshatti, 2009; Przepiorka, Blachnio, Louis, Wozniak, 2013; Langevin, Packman & Onslow, 2009; Pachigar, Stansfield & Goldbart, 2011). For Hughes, Gabel, Irani and Schlagheck (2010), reported negative attitudes towards people who stammer among undergraduate students. These participants reported that when interacting with a person who stammers one needs to consciously look beyond the stammering, pay attention to the content and decipher the content. This effort put in is draining.

Disclosing one's stammering may impact on listener perceptions of PWS and, in turn, alter their reaction and the negative stereotype. In the first ever empirical experimental study that was conducted, Collins and Blood (1990) investigated whether; “ i) individuals who do not stutter prefer interacting with PWS who acknowledge their stuttering, and ii) if the listeners' perceptions of intelligence, personality, and appearance of PWS are altered by their acknowledgement”. The study involved listeners viewing two video tapes of acknowledgment and non-acknowledgment of two mild and two severe male PWS. A sample of 85 female participants examined the interview tapes and were then instructed to answer questions and complete adjective scales. The findings from the study showed that significant numbers of non- stammering females preferred interacting with the males who severely stammered and acknowledged than those who did not. Further, mild and severe PWS who acknowledged their stuttering receive more favourable ratings on intelligence, personality, and appearance.

Healey, Gabel, Daniels and Kawai, (2007) replicated Collins and Blood's (1990) study by examining listeners' perceptions of an adult male person who stutters (PWS) who did or did not disclose his stammering. A sample of 90 AWS individually viewed one of three videotaped monologues produced by a male speaker with severe stammering. In one monologue, 30 listeners heard the speaker disclose stuttering at the beginning and in another monologue, 30 listeners heard the speaker disclose stammering at the end. A third group of 30 listeners viewed a monologue where no disclosure of stammering occurred. After that, the participants rated the speakers on six indicators (these were 1. sincerity 2. likable, 3. trustworthy, 4. friendliness, 5. shows character, 6. emotionally well adjusted). The findings showed that only friendliness significantly differed across the three conditions. Specifically, the listeners rated PWS and disclosed as more friendly than those who did not. Responses to open-ended questions from the participants showed that they were more

comfortable listening to stammering with or without disclosure. Their results indicated that slightly more than half of the listeners believed their perceptions of the speaker did not change when he disclosed stammering. Also showed that “the speaker who disclosed stammering at the beginning of the monologue received significantly more positive listener comments than when he disclosed stammering at the end of the monologue”.

In a related study by Healey et al. (2007), participants were comfortable listening to a monologue read by both PWS in a disclosed and undisclosed. However, there is a tendency to rate one who discloses as friendlier compared to another who does not compared to the same monologue read by an individual who did not stammer. To the author, no study measured the disclosure effects of stammering on memory recall of monologue content. Biases against people who stammer can be mitigated by university students when the audience thinks the speaker is engaged in treatment, or when the stammering frequency is stated to be moderate (Gabel, 2006).

People who have more specific views about the trigger of stammering are more likely to exhibit welcoming and supportive attitudes towards stammering individuals than people who do not especially when the cause of the stammering is attributed to genetics. This according to the researchers calls for public education of the cause of stammering which can reduce negative attitudes and stigmatization (Boyle et al., 2009). Flynn and Louis (2011) also asserted in their research that high school students show negative attitudes towards persons who stammer. However, these attitudes tend to reduce more when they listen to a live presentation of stammering other than a videotaped presentation.

Lee and Manning (2010) did a study to find out whether stammering behaviour evokes negative stereotypical responses from listeners. “Two experiments explored the equivocal results of earlier

investigations concerning the potential for self-acknowledgment and modification of stammering to elicit positive responses from naïve (unfamiliar with stammering) listeners”. In the first experiment, participants watched one video interview between an adult male who stammered and a fluent female interviewer. In the second experiment, participants, randomly assigned to two conditions listened to speech samples with and without acknowledgment, providing them with the opportunity to experience both situations. “The findings of the study suggest that the capability of a speaker to self-acknowledge his or her stammering reflects the person’s adoption of more effective coping strategies and that a positive listener response is likely to be associated with the speaker’s ability to inform the listener about the nature of stammering”.

In another related study, Bryd, McGill, Gkalitsiou and Cappellini (2016) investigated the effect of self-disclosure on observers’ perception of persons who stammer among 173 observer participants. After controlling for observer and the gender of the speaker, the findings showed that listeners were more likely to select speakers who self-disclosed their stammering as more friendly, outgoing, and confident compared with speakers who did not self-disclose. Whereas, speakers who did not self-disclose were likely to be selected by observers as unfriendly and shy compared with speakers who used a self-disclosure statement.

In a follow-up study, Byrd, Croft, Gkalitsiou, and Hampton (2017) investigated the clinical utility of self-disclosure. They explored into whether self-disclosure in an informative-manner would result in more positive observer ratings of the PWS than either disclosing in an apologetic manner or choosing not to self-disclose at all. A sample of 338 observers were randomly assigned to view one of six possible videos (i.e., adult male informative self-disclosure, adult male apologetic self-disclosure, adult male no self-disclosure, adult female informative self-disclosure, adult female apologetic self-disclosure, adult female with no self-disclosure). The observers immediately after

watching the video completed a survey which examined their perceptions of the speaker they had viewed. The findings showed that “self-disclosing in an informative manner leads to significantly more positive observer ratings than choosing not to self-disclose. In contrast, the use of an apologetic statement, for the most part, does not yield significantly more positive ratings than choosing not to self-disclose” (Byrd et al, 2017).

McGill, Siegel, Nguyen, and Rodriguez (2018) have also reported that “majority of AWS provide verbatim self-disclosure statements which were educational in nature. However, when responding to fixed choices and when reporting on self-disclosing other aspects of their lives, most participants selected a direct statement”. McGill et al. (2018) concluded by suggesting that it may be beneficial for AWS to understand the different types of self-disclosure statements and the contexts in which other AWS chose to disclose. Additionally, SLTs who work with AWS may benefit from the reported procedures for and types of self-disclosure statements formulated by AWS.

Boyle and Gabel (2020) have examined the components of disclosure events among people who stammer and identify possible relations between these components to understand how disclosure events unfold. The study adopted the qualitative content analysis and used a grounded theory approach helped to identify relevant themes and subthemes related to the process of disclosure of stammering. Findings showed complex process of disclosure as being comprised of antecedents (including considerations about when and why to disclose), the disclosure event itself (including the content and form of the disclosure, most and least helpful methods of disclosure, as well as immediate listener reactions), and the perceived outcomes of the disclosure at individual, dyadic, and societal or contextual levels. These components of the process are linked and affect one another, resulting in a feedback loop. Disclosure methods are context-dependent and not mutually exclusive within individuals who stammer.

In contrast, Healey (2010) had participants view only one PWS under one of three conditions: (a) disclosure before the monologue, (b) disclosure at the end of the monologue, and (c) no disclosure. The authors found no significant differences on five of six personality characteristic measures and no significant differences in the percentage of positive responses on free-response questions across all three conditions. Authors of a third study (Lee & Manning, 2010) attempted to explain these contradictory findings by conceptually replicating (Panico & Healey, 2010) study in order to contrast their research designs.

First, they replicated Healey's study and found similar non-significant results. Secondly, they replicated Blood and Collins study and found similar significant results. They concluded that the important factor was that Blood and Collins had each participant view two videos, one with a PWS who did not disclose, the second with a PWS who did disclose, this allowed participants to compare the PWS who disclosed to a PWS who did not disclose (or vice versa depending on the order). They concluded that it was this contrast that significantly influenced participants' ratings.

Hughes, Gabel, Iranic, and Schlagheck (2010) explored the deeper meanings of fluent speakers' descriptions of PWS, and, by extension, fluent speakers' attitudes toward PWS. The study adopted Semantic differential instruments to examine fluent speakers' attitudes toward people who stutter (PWS). The participants of the study consisted of 149 fluent University students, who were asked to complete an open-ended questionnaire in which they described PWS and provided an explanation for their descriptions. The design adopted for the study was a mixed model approach with a qualitative emphasis allowed for thematic as well as quantitative data analysis. Findings showed that individuals have simultaneously positive and negative attitudes toward PWS regardless of gender or familiarity with PWS. Multiple explanations were provided and considered personal and societal reactions to stammering. Fluent speakers appear to perceive PWS as being

likeable individuals who are poor communicators, a combination of high-warmth and low-competence that elicits pity (Hughes et al, 2010).

2.3.2 Gender of people who stammer and Listeners' perception

Gender dimension has also been explored in the empirical studies. The fundamental question the studies have sought to answer is whether the gender of PWS affects the kind of perception listeners have towards them. Whereas some studies have reported that female PWS receive significantly more positive evaluation from listeners than male PWS some conclude otherwise. Bryd et al. (2016) in a study of self-disclosure among PWS found that when controlled for self-disclosure and observer gender, observers were less likely to choose the female speaker as friendlier, more outgoing and confident compared with the male speaker. Observers were also found to be more likely to select the female speakers as unfriendly, shy, unintelligent and insecure compared with the male speaker and were more likely to report that they were more distracted when watching or viewing the videos (Bryd et al., 2016).

Reed (2014) has also investigated the effects of self-disclosure on listener perceptions of children who stammer. The study specifically looked at whether listener perceptions of a child speaker who stammers are contingent upon the presence or absence of a self-disclosure statement prior to the speaker initiating his or her monologue, and whether listener perceptions are susceptible to gender bias. The study involved 71 participants between the ages of 6 – 13 years. The children were randomly assigned to view two of the four possible videos. The participants through viewing the two videos filled a survey for the researcher to analyse their perceptions of the speaker for various traits related to personality and intelligence. Findings showed that, when it comes to gender, there

was a significant difference for all questions except ‘more unintelligent’ and ‘less distracted’. However, when the gender viewing possibilities were compared across the three distinct groups (distinguished by whether the video pairing included the male speaker only, the female speaker only, or both a male and female speaker), there was no significant difference found. In Addition, there was no significant interaction between self-disclosure and gender, suggesting that these two factors have independent, un-related influence on listener perception.

The findings from Reed’s (2014) suggest that the difference across responses is only present when all three gender groups are collapsed, which further indicates that gender did not have a distinct impact on the responses to the questions. What this means is that the use of self-disclosure may positively impact children’s perceptions of other children who stammer, and that these perceptions are not uniquely impacted by gender. In a related study, Bajaj et al., (2017) also examined the impact of self-disclosure and speaker sex on adult listeners’ perceptions of simulated stammering. The study involved a group of one hundred (100) college students between the 18 - 25 years, who judged the videotaped speech samples of 1 male and 1 female person, who simulated stammering in disclosed and undisclosed state. The researchers evaluated the listener’s perception through a questionnaire developed for the aim of the study. The findings of the study showed that a female AWS possessed overall better listener perception as compared with male AWS in undisclosed condition and received better perception by listeners in more domains than male AWS in disclosed state. The findings also point to the fact that listener perception seems to be a sex-specific phenomenon which gets affected by one’s disclosure about stammering and the culture of the listeners.

However, previous studies such as those cited above, have reported that gender has no significant effect on how self-disclosure affects listener perception (Evans, Healeya, Kawaia, & Rowland,

2008; Klemm, 2014). For instance, Evans et al. (2008) investigated gender differences in stammering frequency and perceptions. The findings showed that stammering frequency of the peer did not significantly influence how students rated affective statements (feelings and emotions). It was also found that male and female middle school students did not significantly differ in their perceptions of a male peer who stammers (Evans et al, 2008)

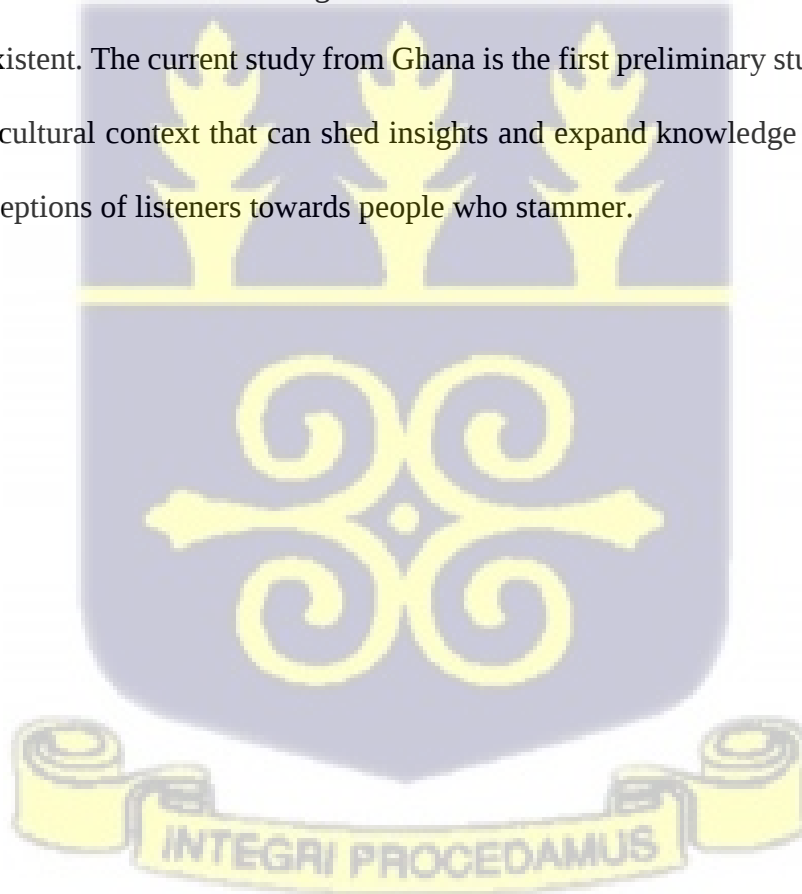
Klemm (2014) sought to present the evidence-based practice for the technique of self-disclosure and to better understand the perceptions of school-age listeners. Each participant completed the required tasks under the supervision of one to two researchers. Prior to the viewing the video recordings, the participants were asked to complete the pre-survey screener and then provided with a 15-20-minute break. After watching the videos, the listener was presented with the survey. The participant was given the option of reading and completing the survey aloud with the help of the researcher or reading and completing the survey independently. The findings showed a preference for the speaker who self-disclosed. The finding was irrespective of the gender of the participants who stammered, nor the gender of the listeners. The combined findings of Evans et al. (2008) and Klemm (2014) therefore suggests that the role of gender in self-disclosure and listener perception of PWS is inconclusive due to various limitations to their studies such as the number of female listeners who partook in the study

2.4 Summary

The studies reviewed show that there is conclusive evidence that self-disclosure improves perceptions of listeners towards people who stammer. What is inconclusive is the impacts of gender, and order of self disclosure. The empirical studies reveal that although there is evidence linking self-disclosure and listener perception of adults who stammer, this may be attributed to

several extraneous variables that are at play in forming social perception, and inadequate methodological procedures to control all. In the Collins and Blood's (1990) study for instance, all the participants were females, rating both male and female PWS.

In Healey et al.'s (2007) study that sought to replicate, Collins and Blood, the deciding factor was so much about the period of self-disclosure, with findings showing that self-disclosure was more effective at the end than at the beginning. The subsequent studies that followed have reported inconsistencies in the findings, particularly when gender dynamics are examined in the association between self-disclosure and listener perceptions of PWS. Also worthy of note is the fact that all the empirical studies have come from high income countries. Research from African context in general is non-existent. The current study from Ghana is the first preliminary study that represents a different sociocultural context that can shed insights and expand knowledge on self-disclosure in changing perceptions of listeners towards people who stammer.



CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter of the study addresses the methodological issues and how the data was gathered and analysed. The chapter specifically presents the detailed description of the study setting, research approach and design, selection of participants, procedures for the data collection and tools, ethical consideration, and data analysis.

3.2 Research Setting

The current study was conducted among undergraduate students of the University of Ghana. The University of Ghana was originally established as the University College of the Gold Coast in 1948 and was originally affiliated to the University of London. However, it attained the status of a full university in 1961, and now has nearly 40,000 full time students (University of Ghana, 2019). Being the largest university in Ghana, the University of Ghana is a good site to be used for the study.

3.3 Research Approach and Design

Research design or approach is the process considered in addressing research questions to yield what it purposed to achieve (Lindseth & Norberg 2004). Research design can be categorised into two main groups, these are quantitative and qualitative research approaches (Creswell & Creswell, 2017).

Quantitative Research is used to quantify the problem by way of generating numerical data or data that can be transformed into usable statistics (Lindseth & Norberg 2004), while Qualitative research design on the other hand enables researchers to make sense of reality, to describe and explain the social world and to develop explanatory models and theories (Creswell & Creswell, 2017).

The researcher employed the quantitative research design for the present study. Specifically, it is a quasi-experimental design. The quantitative research approach was adopted because of the nature of the study where research participants were asked to respond to questionnaires on the impact of disclosure on the perception of themselves as listeners with regards to stammering. Also, the large population size allowed for enough power for statistical analysis.

3.4 Population

The target population was all estimated 40,000 undergraduate students of the University of Ghana. The inclusion criteria were all university of Ghana students with age ranging from 18 to 25, whose speech is fluent, who speak English and had agreed to participate. The exclusion criteria for selecting the participants, which was ascertained through a screening by a speech-language therapist, was the presence of any significant medical history and family history of hearing deficits or any other speech or language disorder.

3.5 Sample size

In this study, a total of two hundred and ten (210) students were selected for the study. The sample size was determined using version 3.1.9.4 of G* power software. The G*power helped to estimate

the sample size by taking into account the estimated effect size needed to achieve a designated power level (Beck, 2013). Based on Beck's recommendations, a priori statistical power analysis for treatments effects was used. A function of power level $1 - \beta = .80$, an alpha level of $= .01$, the medium effect size of $= .30$ (being the average change in most studies), and 4 experimental conditions computed gave an estimated minimum of one hundred eighty-six (186) minimum sample size. The sample size of 210 was therefore deemed adequate to identify main and interaction effects. The demographic characteristics of the participants are provided in Table 1.

Table 1: Demographic characteristics of the participants

Factor	Categories	Frequency	Percentage
Conditions	Female Non-disclosure	50	23.8%
	Female Disclosure	52	24.8%
	Male Non-disclosure	52	24.8%
	Male Disclosure	56	26.7%
Gender	Male	102	48.6%
	Female	108	51.4%
Age	18 - 20 years	70	33.3%
	21 - 25 years	102	48.6%
	26 - 30 years	30	14.3%
	31 - 35 years	8	3.8%
Level of study	Level 100	22	10.5%
	Level 200	60	28.6%
	Level 300	72	34.3%

Level 400	56	26.7%
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Source: Primary data (2020)

As shown in Table 1, participants were evenly distributed across the four conditions, with averagely 50 participants per condition. More than half of the participants were females (51.4%), with the remaining 48.6% being males. The ages of the participants ranged between 18 – 35 years, with majority of them being 21 – 25 years (48.6%), followed by those between 18 – 20 years (33.3%). The participants were all undergraduate students – 10.5% are in level 100, 28.6% are in level 200, 34.3% are in level 300 and 26.7% are in level 400.

3.5.1 Sampling technique

The study adopted the convenience method or technique to select the 210 University of Ghana students above the age of 18 years. Convenience sampling was based on the students' availability and willingness to be part of the study.

3.6 Materials used

The researcher used questionnaires to collect the data from the participants. The questionnaire was designed by Bajaj and colleagues in their research to examine self-disclosure in stammering and listener perception. Three professional Speech and Language Therapists with at least three years clinical experience with adults who stammer evaluated the relevance of the items stated in the questionnaire. The SLTs provided rating for a 5 ranged Likert scale questions regarding the questionnaire. This ranged from '1' representing extremely irrelevant to '5' being extremely relevant. The formula used for content validity was adapted and presented as follows; Content Validity Index = Number of SLTs who rated '4' and '5' / Total number of SLT involved in

validation. Each item aside been reviewed by Bajaj and colleagues as valid to their objectives, similarly, was reviewed by the therapists to ascertain its relevance to the variables under study. Before responding to the questionnaire an audio recording was obtained from two speech and language therapy students (one male and one female) who were typically fluent speakers. The speakers were matched by age and educational level. The speakers were filmed as they described a scene in the movie ‘titanic’ viewed before the recording

Initially, a pilot study was conducted on the content of the video to determine how appropriate they are. A total of 18 students at the University of Ghana were used for the pilot study. The speech sample without disclosure was used as the baseline.

Listener Perception

Listener perception was measured with four dimensions – personality, communication intent, communication competence and social competence. The questionnaire had six sections. Section A measured demographic characteristics such as gender, age and level of study. Section B assessed listeners’ perception of the speakers’ personality, using six items. Section C measured communication intent with two items. Section D measured communication competence with four items. Section E measured social competence with four items. All the items in Sections B to E were rated on a 5-point Likert scale ranging from 1 = Strongly disagree, 2 = Disagree, 3 = Somehow, 4 = Agree, 5 = Strongly Agree. Section F assessed whether listeners had relatives who stammered, if they themselves had watched the movie narrated before, had close friends who stammered, and whether the listeners stammered themselves. Items in section F were answered with Yes or No.

3.7 Data collection procedure

The data was gathered through online platforms. The videos of the speakers and the questionnaires were set up on Google document forms. The link to the video and questionnaire were sent to undergraduate students of the University of Ghana through emails and WhatsApp platforms. When the participants opened the link, they were first introduced to the study and its objective. After that the participants' consent were sought. Informed consent was also included in the link, which explained the rights and confidentiality of the participants. After participants had given their consent, they provided their email addresses which helped the researcher to control the number of times a participant filled the form. A video linked to the questionnaire opened for them to watch. After watching, then they were led to the questionnaire for them to fill. Each respondent listened and evaluated one audio condition.

3.8 Ethical considerations

The Ethical and Procedure Review Committee (EPRC) of the School of Biomedical and Allied Health Sciences (SBAHS) of the University of Ghana gave ethics approval with an identification number SBAHS/AA/SLT/10226529/2019-2020 to the research. Methods and objectives of the study and the process of assessment was completely clarified to participants. Those who agreed to participate were given the informed consent form before taking part in the study. Again, participants were made aware of the voluntary nature of the study, their right to withdraw at any point in time without explanation or penalty and were also assured of privacy and confidentiality. After the study, the researcher addressed other concerns that participants had about the study in the form of debriefing.

3.9 Data analysis

The data was analysed using both descriptive and inferential statistics. The descriptive statistics was used to present the data in terms of frequencies, percentages, means and standard deviations. The hypotheses were tested using a Two-way Multivariate Analysis of Variance (2-Way MANOVA), with the help of Statistical Package for Social Sciences (SPSS) software version 23. There were two independent variables (i.e. disclosure status and gender) and four dependent variables (i.e. personality, communication intent, communication competence and social competence).

The 2-Way MANOVA is most suited statistical test for estimating main and interactional effects of categorical independent variables on multiple continuous dependent variables simultaneously while keeping Type I error level low (Tabacknick & Fidel, 2019). The 2-Way MANOVA therefore helped to test the main effects and interaction effect of disclosure status and gender on all the four dependent variables simultaneously, while maintaining the error level at 5% (95% confidence interval).

A 2-Way MANOVA test estimates a model at three stages. First, the linear effects of gender and disclosure together on listener perceptions (i.e. the four DVs put together) was estimated and significance evaluated using Wilk's lambda and p value (Tabacknick & Fidel, 2019). When significant effect is identified, test of between subject effect is then estimated to assess the main effect each of gender and disclosure, as well as interaction (disclosure * gender) effects on listener perception.

When a significant effect is identified, the next phase is to locate where the significant effects are. At this level, the main and interaction effects will be assessed on each of the four dimensions of

listener perceptions. At this stage, a Bonferroni adjustment is made on the significance level to account for excess power in testing the dependent variables together (Tabacknick & Fidel, 2019). The Bonferroni adjustment is made by dividing the p value by the number of DV. In the current study, at $p = .05$ and $DVs = 4$, Bonferroni adjustment was;

$$0.05 \div 4 = 0.0125$$

This means that in deciding on the final significant effect on any of the dimensions should be $p < .0125$, and not $p < .05$ (Tabacknick % Fidel, 2019). In testing the main and interaction effects, gender of the respondents and whether they had relatives or close friends who stammer were included in the model as covariates in order to control for them. These variables were controlled for because the respondents' exposure to them can pre-empt their perceptions of people who stammer.

3.10 Dissemination of results

This study is submitted for academic purpose as a requirement for a Master of Science (MSc.) degree in Speech and Language Therapy, at the Department of Audiology, Speech and Language Therapy, School of Biomedical and Allied Health Sciences, University of Ghana. The findings from the study would be published in peer-reviewed journals, and also be presented at international and national conferences.



CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.1 Introduction

This study investigated how disclosure of stammering status affects perceptions of listeners towards individuals who stammer. The key variables of interest were self-disclosure of stammering status, gender of the speaker and interaction between gender and disclosure status. Participants were made to take part in one of four conditions – female non-disclosure, female disclosure, male non-disclosure, and male disclosure. This chapter presents the detailed statistical techniques used to analyse the data and the various findings observed from the study. The major sub-sections captured in this chapter are demographic characteristics of the participants, reliability level of the variables, descriptive statistics, hypothesis testing and summary of findings.

4.2 Demographic Characteristics

In all, a total of 210 participants took part in this study. This section presents the description of the demographic characteristics of the participants on Table 1.

As shown in Table 1, participants were evenly distributed across the four conditions, with averagely 50 participants per condition. More than half of the participants were females (51.4%),

with the remaining 48.6% being males. The ages of the participants ranged between 18 – 35 years, with majority of them being 21 – 25 years (48.6%), followed by those between 18 – 20 years (33.3%). The participants were all undergraduate students – 10.5% are in level 100, 28.6% are in level 200, 34.3% are in level 300 and 26.7% are in level 400.

4.3 Reliability of the variables

This section presents statistics on the reliability levels of the scales that were used to gather the data. According to Bryman and Bell (2015) reliability levels of scales are examined to ensure that the scales are able to give consistent scores for the study so that the data can be trusted. A scale is found to be reliable and good for research if the Cronbach alpha value of the scale is 0.7 or more. The reliability levels of the scales used for the current study are provided on Table 2.

Table 2: Reliability coefficients of the variables

Variable	No. of items	Reliability (α)
Personality	6	.772
Communication intention	2	.766
Communication competence	4	.801
Social competence	4	.785

Source: Primary data (2020)

The items measuring all the variables were found to be reliable. As shown on Table 2, personality had $\alpha = .772$, communication intent had $\alpha = .766$, communication competence had $\alpha = .801$, and social competence had $\alpha = .785$. This means that all the Cronbach alpha values are above the

threshold of .70, the scales were appropriate to be used for the study, which meant that the variables were all reliable.

4.4 Descriptive Statistics

The descriptive statistics of the scores on each of the variables are provided in this section. The descriptive statistics sought to examine the minimum scores, maximum scores, mean scores and standard deviation, and the skewness and kurtosis of distribution of the scores in order to check for their viability for ensuring that the data is normally distributed. In terms of distribution of the data, Tabachnick and Fidel (2019) show that when skewness values range between -1.00 to 1.00 and kurtosis values range from -2.00 to 2.00, it means the data is normally distributed. Table 3 contains the descriptive statistics of the variables.

Table 3: Descriptive scores and distribution

Variables	Min.	Max.	Mean	SD	Skewness	Kurtosis
Personality	8.00	28.00	21.25	3.14	-.910	1.976
Communication Intent	2.00	10.00	6.65	1.44	.039	1.900
Communication Competence	5.00	20.00	11.28	3.11	.199	-.159
Social Competence	6.00	20.00	13.94	2.95	-.040	-.268

Source: Primary data (2020)

As shown on Table 3, all the variables were found to be normally distributed. The kurtosis values ranged between -.268 to 1.976, and the skewness values ranged between -.910 to .199. The normal distribution of the data shows that the data is fit for inferential statistical analysis. The scores on

the variables were as follows; personality ($M = 21.25$, $SD = 3.14$), communication intent ($M = 6.65$, $SD = 1.44$), communication competence ($M = 11.28$, $SD = 3.11$), social competence ($M = 13.94$, $SD = 2.95$).

4.5 Hypotheses Testing

A Two-way MANOVA was used to test the hypotheses. In testing the hypotheses, the gender of the respondents and whether they had relatives who stammer were put into the model as covariates, in order to control for them. The multivariate statistics are provided on Table 4.

Multivariate Tests

Table 4: Multivariate test of significance

Effect	λ	F	p	Partial Eta Squared
Gender of respondents	.952	2.520	.042	.048
Relative who stammers	.920	4.353	.002	.080
Gender of speaker	.594	34.338	.000	.406
Disclosure	.654	26.594	.000	.346
Gender * Disclosure	.722	19.327	.000	.278

Source: Primary data (2020)

As indicated in Table 4, gender of the respondent had significant effect on the dependent variables ($\lambda = .952$, $F = 2.52$, $p < .05$), but with small effect ($\eta^2 = .048$). Having a relative who stammers also had significant effect on the dependent variables ($\lambda = .920$, $F = 4.353$, $p < .05$), with small effect ($\eta^2 = .080$).

When both gender of respondents and having a relative who stammers are controlled for, significant differences in the four were observed based on gender of the speaker ($\lambda = .594$, $F = 34.338$, $p < .001$, with large effect size $\eta^2 = .408$), disclosure ($\lambda = .654$, $F = 26.594$, $p < .001$, with large effect size $\eta^2 = .346$), and interaction between gender and disclosure ($\lambda = .722$, $F = 17.327$, $p < .001$, with large effect size $\eta^2 = .274$).

The significant differences observed suggest that there are differences in at least one of the four dependent variables. However, to identify the specific dependent variables where the significant differences actually are, the tests of between-subjects' effects (Table 5) need to be examined.

Table 5: Tests of between-group effects

Source	Dependent Variable	Type III Sum				
		of Squares	Df	MS	F	p
Gender of respondent	Personality	.002	1	.002	.000	.989
	Communication Intent	.254	1	.254	.200	.655
	Communication Competence	57.292	1	57.29	7.66	.006
	Social Competence	.243	1	.243	.038	.846
Relative who stammers	Personality	4.453	1	4.453	.464	.496
	Communication Intent	6.769	1	6.769	5.34	.022
	Communication Competence	84.144	1	84.144	11.25	.001*
	Social Competence	36.468	1	36.468	5.71	.018
	Personality	61.828	1	61.828	6.45	.012*

Gender of speaker	Communication Intent	34.204	1	34.204	26.99	.000*
	Communication Competence	117.133	1	117.133	15.67	.000*
	Social Competence	228.471	1	228.471	35.76	.000*
Disclose	Personality	23.739	1	23.739	2.48	.117
	Communication Intent	78.867	1	78.867	62.29	.000*
	Communication Competence	133.859	1	133.859	17.91	.000*
	Social Competence	231.177	1	231.177	36.19	.000*
Gender *	Personality	8.483	1	8.483	.884	.348
Disclose	Communication Intent	63.218	1	63.218	49.88	.000*
	Communication Competence	39.796	1	39.796	5.32	.022
	Social Competence	4.104	1	4.104	.642	.424

Source: Primary data (2020) *Significance $p < .01$

Table 5 shows that gender of the respondents had a significant effect on communication competence ($F = 7.664$, $p < .01$). Comparing the mean scores, female respondents ($M = 11.98$, $SD = 3.07$) rated their speakers significantly higher on communication competence than male respondents ($M = 10.53$, $SD = 2.98$).

Having a relative who stammers also had a significant effect on communication competence ($F = 11.256$, $p < .01$). In comparing the mean scores, respondents who had relatives who stammer rated the speakers higher ($M = 12.1$, $SD = 2.69$) on communication competence than those who did not

have relatives who stammer (M = 10.95, SD = 3.21). Therefore, in testing the hypotheses, gender of respondents and having relatives who stammer were controlled for in the model.

Table 6: Mean scores and standard deviations for independent variables

Variables	Gender of Speaker	Disclose	Mean	Std. Deviation	N
Personality	Male	Disclosure	22.3214	2.39019	56
		Non-disclosure	21.1923	2.78679	52
		Total	21.7778	2.63809	108
	Female	Disclosure	20.8000	3.11022	50
		Non-disclosure	20.5769	3.90247	52
		Total	20.6863	3.52075	102
	Total	Disclosure	21.6038	2.84414	106
		Non-disclosure	20.8846	3.38847	104
		Total	21.2476	3.13883	210
Communication Intent	Male	Disclosure	6.3214	1.20766	56
		Non-disclosure	6.1538	1.14420	52
		Total	6.2407	1.17506	108
	Female	Disclosure	8.2400	1.28667	50
		Non-disclosure	5.9615	.86232	52
		Total	7.0784	1.57760	102
	Total	Disclosure	7.2264	1.56925	106
		Non-disclosure	6.0577	1.01280	104

		Total	6.6476	1.44422	210
Communication Competence	Male	Disclosure	13.4286	1.48761	56
		Non-disclosure	10.5385	3.12147	52
		Total	12.0370	2.80829	108
	Female	Disclosure	10.8400	3.86169	50
		Non-disclosure	10.1154	2.43064	52
		Total	10.4706	3.21724	102
	Total	Disclosure	12.2075	3.13116	106
		Non-disclosure	10.3269	2.79195	104
		Total	11.2762	3.10732	210
Social Competence	Male	Disclosure	13.8571	2.81185	56
		Non-disclosure	11.8846	2.45472	52
		Total	12.9074	2.81364	108
	Female	Disclosure	16.2000	2.72554	50
		Non-disclosure	13.9231	2.14061	52
		Total	15.0392	2.68815	102
	Total	Disclosure	14.9623	2.99817	106
		Non-disclosure	12.9038	2.51025	104
		Total	13.9429	2.94715	210

Source: Primary data (2020)

Hypothesis One

Hypothesis 1 stated that AWS who disclose their stammering status will be perceived significantly more positively by listeners than those who do not disclose. As shown on Table 5, disclosure had a significant effect on perceived communication intent ($F = 62.229, p < .001$), communication competence ($F = 17.906, p < .001$) and social competence ($F = 231.177, p < .001$). In comparing mean differences in Table 6, the speakers who disclosed their stammering were rated higher ($M = 7.23, SD = 1.57$) than those who did not disclose ($M = 6.06, SD = 1.01$). Those who disclosed were also rated higher ($M = 12.08, SD = 3.13$) on communication competence than those who did not disclose ($M = 10.33, SD = 2.79$). Those who disclosed were also rated higher ($M = 16.2, SD = 2.73$) on social competence than those who did not disclose ($M = 13.92, SD = 2.14$). Hypothesis 1 is therefore supported.

Hypothesis Two

Hypothesis 2 stated that female AWS will be significantly perceived more positively by listeners than male AWS. Table 5 shows that gender of speaker had a significant effect on communication intent ($F = 26.99, p < .001$), communication competence ($F = 15.67, p < .001$) and social competence ($F = 36.189, p < .001$). In comparing mean differences in Table 6, female AWS were rated significantly higher ($M = 7.09, SD = 1.58$) than male AWS ($M = 6.24, SD = 1.18$). Female AWS were also rated higher ($M = 15.04, SD = 2.69$) on social competence than male AWS ($M = 12.91, SD = 2.81$). On communication competence however, male AWS were rated significantly higher ($M = 12.04, SD = 2.81$) than female AWS ($M = 10.47, SD = 3.22$). These findings suggest that female AWS were rated favourably on communication intent and social competence, while

male AWS were rated favourably on communication competence. Hypothesis 2 is therefore not entirely supported.

Hypothesis Three

Hypothesis 3 stated that female AWS who disclose their stammering will be perceived significantly more positively by listeners than female AWS who did not disclose their stammering. This hypothesis tested for interaction (gender x disclosure) effect. Table 5 shows that the significant interaction effect was observed in only communication intent ($F = 49.88, p < .001$). In comparing the mean scores in Table 6, female AWS who disclosed ($M = 8.24, SD = 1.29$) were rated significantly more positive on communication intent than female AWS who did not disclosed ($M = 5.96, SD = 0.86$). Hypothesis 3 is therefore supported.

The interaction of gender and disclosure is represented on the Figure 1.

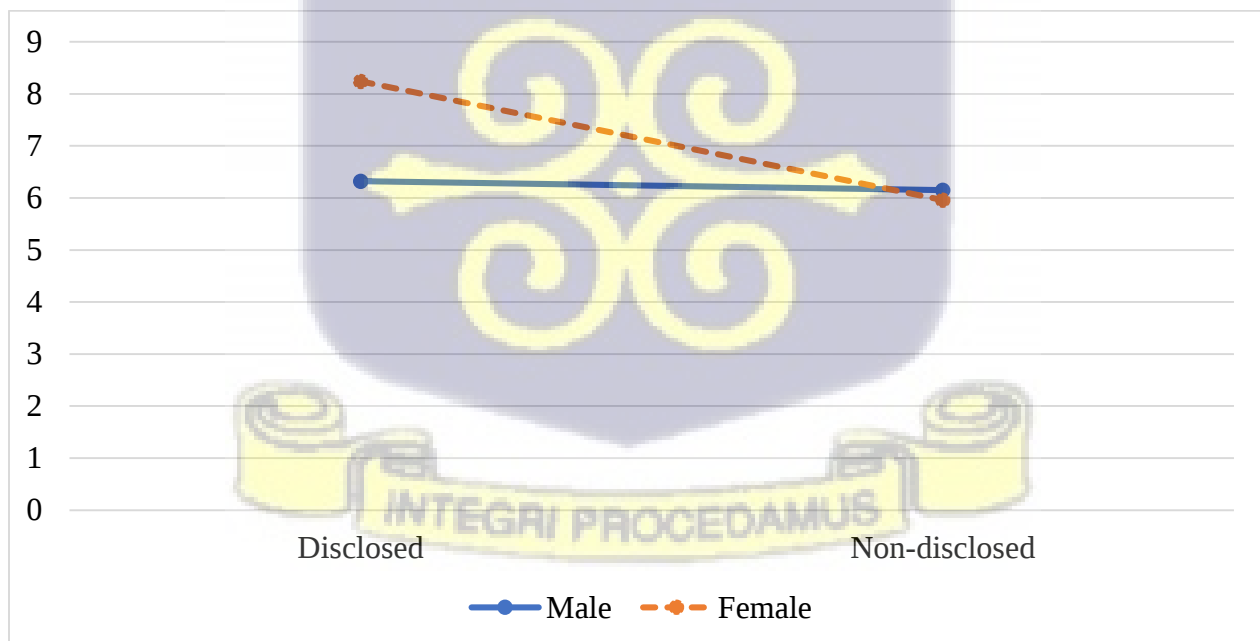
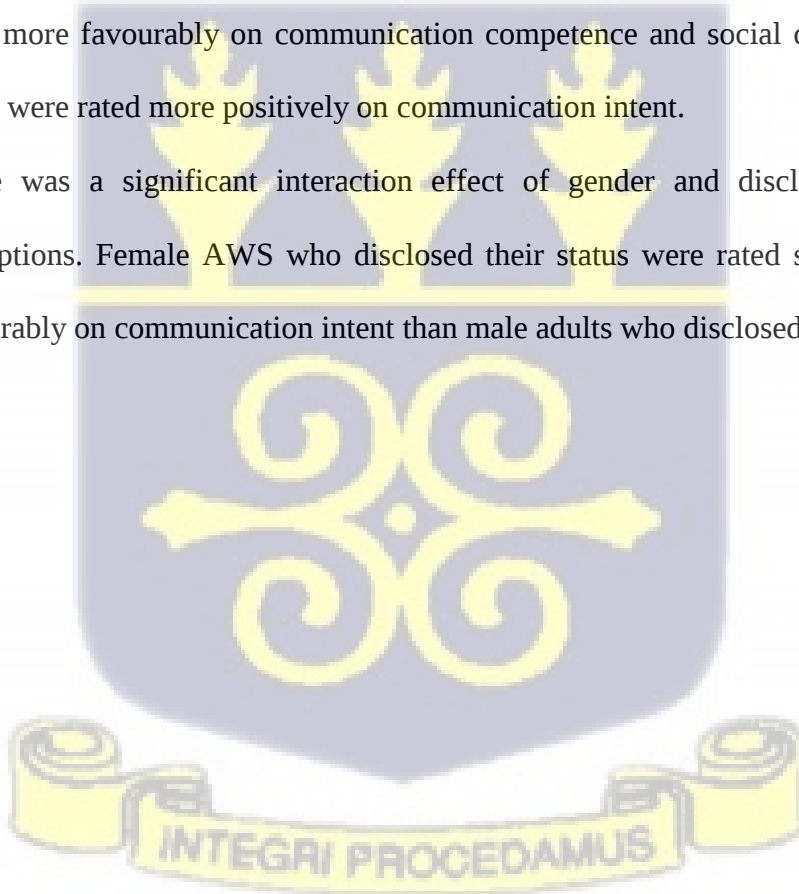


Figure 1: Interaction of gender and disclosure on communication intent

4.6 Summary

The findings from the study are summarized in this section. After controlling for gender of respondents and having relatives who stammer, the following significant effects were observed:

- i. Disclosure has significant effect on listener perception. AWS who disclosed their stammering status were rated significantly more positively on communication intent, communication competence and social competence than adults who did not disclosed.
- ii. Gender of speaker had significant effect on listener perceptions. Female AWS were rated more favourably on communication competence and social competence. Male AWS were rated more positively on communication intent.
- iii. There was a significant interaction effect of gender and disclosure on listener perceptions. Female AWS who disclosed their status were rated significantly more favourably on communication intent than male adults who disclosed



CHAPTER FIVE

DISCUSSION

5.1 Introduction

The study investigated how self-disclosure and gender affect listener perceptions towards AWS. The objectives tested were; i) to examine whether the perception of listeners of adult who stammer will be influenced by self-disclosure ii) to determine whether the perception of listeners will differ based on the gender of the speaker, and iii) to examine the perceptions of the listener in AWS in terms of self- disclosure and gender.. Listener perception was measured using in four dimensions – personality, communication intent, communication competence and social competence.

In this chapter, the findings from the study are integrated and discussed. The discussion of the findings is also situated within the context of existing empirical and theoretical literature. Discussion is organized around the objectives and hypotheses tested.

5.2 Disclosure and Listener Perception

The first objective of the study examined whether the perception of listeners of AWS will be influenced by self-disclosure. Based on the literature reviewed, the first hypothesis stated that AWS who disclose their stammering status will be perceived more positively by listeners than

those who do not disclose. The findings showed that self-disclosure had significant effect on listener perception. AWS who disclosed their stammering status were rated more positively on communication intent, communication competence and social competence. However, self-disclosure did not have significant effect on listeners' ratings of the speakers' personality. These findings show that the hypothesis to a large extent was supported.

The findings suggest that when AWS self-disclose their stammering status, their listeners are more likely to believe their intention and trust their communication and social competence, than when they do not disclose. According to the social perception theory, genuineness is an important element of creating positive perceptions in social interactions (Freeman et al., 2020; Lilli & Frey, 1993; Mancinelli, 2019).

Following the genuineness assumption of the social perception theory, the positive effect of self-disclosure on listener perception can be explained by the fact that self-disclosure may cause listeners to perceive AWS as genuine. By self-disclosing stammering status, the listeners may begin to trust the intention of the AWS, and by so doing, they begin to look beyond the few breaks in communication, to focus on the import of what is being said. This explains why listeners trust the intention of the speakers who self-disclosed their stammering and believe in their competence, more than those who did not disclose.

The findings from this study are in line with empirical evidence reported by previous studies to the effect that self-disclosure enhances listeners' perceptions of personality, likability, and competence of AWS (Byrd, 2017; Collins & Blood, 1990; Healey et al., 2007; Lee & Manning, 2020; Panico, 2009).

The findings at the same time also contradict findings from some previous studies. Previous studies such as Healey et al. (2007), Lee and Manning (2010), Byrd et al., (2016), Byrd (2017) and McGill et al. (2018) have also reported that self-disclosure influences listeners to perceive AWS as likable or having favourable personality. Contrary to the previous studies, the current study found that self-disclosure only had positive impact on perception of intention and competence, but not personality. This means that self-disclosure had no significant impact on whether AWS will be liked or not liked, but their intention and competence may be trusted.

The difference in effect of self-disclosure on different dimensions of listeners' perception in this study is an indication that self-disclosure may not have positive impact on all aspects of listeners' perception. While self-disclosure may improve how listeners perceive AWS in some domains, it may not cause their listeners to like their [AWS'] personality. This suggests that intentionality is important in using self-disclosure. The clinical implication is that speech and language therapist when planning interventions for AWS must discuss at length the extent to which self-disclosure will benefit a client during social interactions. There is the need to identify the goals of AWS as they engage their listeners or audience, and then assess whether self-disclosure can help them to achieve that before self-disclosure would be considered as therapy goals.

5.3 Gender and Listener Perception

The second objective examined the effect of gender of AWS on their listeners' perception. Gender is a very powerful social category, particularly when it comes to social perception and impression formation (Freeman et al., 2020). Men and women are viewed and perceived differently, and the

same happens when listeners are forming impressions of AWS. The evidence of gender differences in listeners' perception towards AWS is inconclusive.

While some studies reported significant gender differences (Bajaj et al., 2017; Bryd et al., 2016), others find no gender differences (Evans et al., 2008; Reed, 2014). Even among studies that found significant effect, Bajaj et al. (2017) reported that female AWS had positive listener perception, while Bryd et al. (2016) reported that male AWS are rated more positively.

The social perception theory argues that individuals are more compassionate towards females than males in forming impressions (Forgas, 1992; Lilli & Frey, 1993). Therefore, in line with the empirical evidence from Bajaj et al. (2017) and the social perception theory, this study hypothesized that female AWS would be significantly perceived more positively by the listeners than male AWS. The findings from the study showed that gender of the speaker had significant effect on listener perception. This finding contradicted both Evans et al., (2008) and Reed (2014) who found gender not to be significant.

In this study, Female AWS were rated more favourably on communication competence and social competence. Male AWS were rated more positively on communication intent. These findings showed that the gender of the AWS contributed to forming different perceptions of the listeners. Therefore, even though gender had significant effect, the hypothesis that female AWS would be significantly perceived more positively by the listeners than male AWS, was not entirely supported. These findings therefore partially contradict both Bajaj et al., (2017) who reported that female AWS had positive listener perception, and Bryd et al. (2016) who reported that male AWS are perceived more favourably. This study has shown that the gender differences in listeners' perception towards AWS depends on the dimension of perception being assessed.

The results from the current study suggest that women who stammer are likely to be perceived as more socially competent by their listeners than are men who stammer, while the intentions of men who stammer are likely to be more trusted by their listeners. It is imperative that these gender dynamics are paid attention to by therapists and their clients who stammer, to know the dimensions of social perceptions where their gender enhances or undermines their listeners' perceptions of them.

5.4 Self-disclosure, Gender, and Listener Perception

The last objective examined the interaction effect of self-disclosure and gender on listener perception. The last objective provided insights into understanding, between men who stammer and women who stammer, who benefits from self-disclosure more, in terms of listener perception and which domain do they benefit more. It was hypothesized that female AWS who disclosed their stammering would be perceived more positively by listeners than female AWS who did not disclose their stammering.

The findings from the study showed that there was significant interaction effect of gender and disclosure on listener perceptions. Specifically, female AWS who disclosed their status were rated favourably on communication intent compared to female non-disclosure. However, male-disclosure was not statistically different from male-non-disclosure on communication intent. These findings suggest that the hypothesis was supported, and that female AWS benefit more from self-disclosure than male AWS.

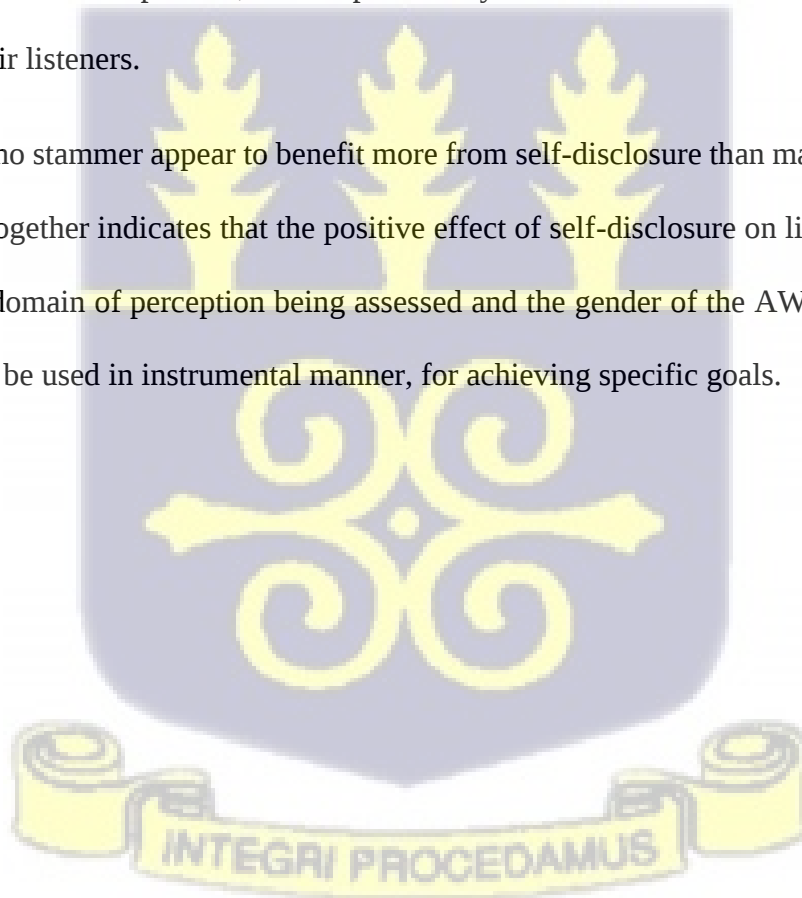
These findings are critical because, in the main effect of gender, male AWS were rated higher on communication intent than female AWS. However, when gender interacted with self-disclosure,

the self-disclosing improved the listener's perception of communication intent for the females but not for the males. This suggests that, self-disclosing can improve listeners' perception towards women who stammer, particularly in areas of perception where they fall low.

5.5 Summary

In summary, the current study has shown that self-disclosure significantly improves listeners' perception towards AWS, in very specific domains as communication intent, communication competence and social competence, but not personality. Gender of AWS influences how they are perceived by their listeners.

Also, females who stammer appear to benefit more from self-disclosure than males who stammer. These findings together indicates that the positive effect of self-disclosure on listener perceptions depends on the domain of perception being assessed and the gender of the AWS. Self-disclosure should therefore be used in instrumental manner, for achieving specific goals.



CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 Introduction

This chapter presents the summary of research findings, conclusion and recommendations.

6.2 Conclusion

The study investigated the impact of disclosure and gender on perception of listeners towards adults who stammer. Three key objectives were explored; i) the main effect of self-disclosure on listener perception, ii) the main effect of gender of the individual who stammers on listener perception, and iii) the interaction effect of self-disclosure and gender on listener perceptions. Listener perception was assessed in four dimensions – personality, communication intent, communication competence and social competence. A 2-Way MANOVA was used to estimate the model that tested the main and interaction effects of self-disclosure and gender on listener perceptions. In testing the effects, gender of respondents and having a relative who stammer had significant effect on listener perceptions, and therefore were used as covariates to control for them. The findings showed that both self-disclosure and gender had significant main and interaction effects on listener perception. First, self-disclosure had a significant main effect on listener perception. AWS who self-disclosed their stammering status were rated positively on communication intent, communication competence and social competence. Second, gender of the speaker also had significant main effect on listener perceptions. Female AWS were rated more favourably on communication competence and social competence. Male AWS were rated more

positively on communication intent. Lastly, there was significant interaction effect of gender and disclosure on listener perceptions. Female AWS who disclosed their status were rated favourably on communication intent.

In conclusion, self-disclosure has complex and nuanced implications on listener perceptions towards adults who stammer. This is more so when the gender of the adult who stammers is taken into consideration. Whether to self-disclose or not in social circumstances, adults who stammer need to be clear on the goals they want to achieve in communicating with their listeners. While self-disclosure could improve listeners' perceptions of their intent and competence, it may not necessarily cause the listeners to like their personality. There is also the need to be mindful of how their gender may impact on the effectiveness of self-disclosure in achieving that goal. Being male enhances listeners' perception of communication intent, while being female enhances listeners' perceptions of competence. Self-disclosure of stammering status is therefore advised to be used carefully. If it must be used, there is the need to be clear on what to achieve with it.

6.3 Limitations

There are some limitations that need to be taken into consideration when interpreting and/or applying the findings from this study. First, the speakers were not individuals who stammer in real life. Even though they were able to mimic stammering very well, the severity of stammering was not rated to ascertain if both speakers had the same severity level. However, the recordings were not judged by professionals as an authentic representation of stammering.

The second limitation is the context of self-disclosure used. Self-disclosure was used in a narrative and one-way communication context. By this, the speaker was just narrating, and the listeners were

just to watch and rate. The listeners therefore had no opportunity to interact directly with the speakers. In real life situations where individuals who stammer may engage in two-way communication with their listeners, the findings may differ.

Lastly, the sample used were all undergraduate students from University of Ghana. In everyday life, adults who stammer interact with audiences with diverse educational and socioeconomic backgrounds. The sample in this study is not representative of the everyday interactions that people who stammer interact with in their everyday lives except if they are students who live on campus.

6.4 Recommendations

This section presents the recommendations based on the findings from the study. The recommendations for practices are first discussed, and then suggestions made for future research.

6.4.1 Recommendations for practice

The recommendations for practice border with how best to use or encourage self-disclosure as part of therapy for adults who stammer. Self-disclosure has become popular among Speech and Language Therapists. Based on the findings from this study, the following recommendations are made for practitioners:

- i. First, this study has shown that self-disclosure improves listeners' perception of competence but not their personality. It is therefore recommended that before prescribing self-disclosure, Speech and Language Therapists should critically engage with their clients on the specific goals the clients want to achieve from their listeners or audience. If the client just wants their listeners or audience to like them, then self-

- disclosure may not help them to achieve it. But if the client wants their audience or listeners to trust their competence, then self-disclosure may help. There is therefore the need to be clear on goals to be achieved, so that self-disclosure can be intentionally used or not used.
- ii. Secondly, gender of the client also matters in listener perceptions. It is therefore recommended that both Speech and Language Therapists and their clients should know gendered dynamics in listener perception. This study showed that female AWS was rated higher on social and communication competence, while male AWS was higher on communication intent. There is therefore the need to know how the gender of the clients contributes to or undermines listener perception goals to be achieved.
 - iii. The findings suggest that self-disclosure may help female clients to achieve listeners' trust in their communication intent than non-disclosure. Speech and Language Therapists should therefore be critically aware that self-disclosure does not only work in isolation but also interacts with the gender identity of their clients to inform listeners' perception.
 - iv. This research can serve as a starting point in developing guidelines for clinicians when planning an intervention for PWS. Also, in making policies regarding PWS factors such as availability of gender and listener biases must be considered.

6.4.2 Recommendations for future studies

By far, this study is the first in Ghana to investigate self-disclosure as a mechanism to improve listener perception among individuals who stammer. There is the need for further study to critically inform practice. The following are therefore suggested for further research:

- i. Future studies should consider using individuals who stammer in real life as speakers, and to use samples with diverse socio-economic background as listeners.
- ii. There is the need to also conduct research on children and adolescents who stammer to understand whether self-disclosure also works well among these groups.
- iii. Future studies are also recommended to consider using communication in different social settings such as interpersonal communication and interview situations.



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APPENDICES

APPENDIX I: QUESTIONNAIRE

DEPARTMENT OF AUDIOLOGY, SPEECH AND LANGUAGE THERAPY

SCHOOL OF BIOMEDICAL AND ALLIED HEALTH SCIENCES

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

QUESTIONNAIRE

A. Demographic Information

1. Gender: 1. Male [] 2. Female []
2. Age:years
3. Level of study: 100 [] 200 [] 300 [] 400 []

Please rate your perceptions about the speaker you just watched, on a 5-point Likert scale, ranging from 1 = Strongly disagree, 2 = Disagree, 3 = Somehow, 4 = Agree, 5 = Strongly Agree

B	Personality of the speaker	Strongly Disagree (1)	Disagree (2)	Somehow (3)	Agree (4)	Strongly Agree (5)
1	This person seems sincere					
2	This person is likeable					
3	This person is trustworthy					
4	This person is friendly					
5	This person shows good character					

6	This person is emotionally well adjusted					
C	Communication Intent	Strongly Disagree (1)	Disagree (2)	Somehow (3)	Agree (4)	Strongly Agree (5)
1	This person is able to convey the message effortlessly					
2	This person is struggling to convey his message					
D	Communication competence	Strongly Disagree (1)	Disagree (2)	Somehow (3)	Agree (4)	Strongly Agree (5)
1	This person is communicating like any other normal person					
2	This person is a good communicator					
3	This person is clear in his thoughts and expression					
4	It is a pleasure to listen to him/her					
E	Social competence	Strongly Disagree (1)	Disagree (2)	Somehow (3)	Agree (4)	Strongly Agree (5)

		(1)				(5)
1	This person is capable of being a good leader					
2	This person can participate in public addressing occasions					
3	I can have this person as my friend					
4	I will be fine if my life partner has such speech					

F. Other Information

1. Have you watched the movie 'Titanic' before? YES [] NO []
2. If yes, did you like the movie? YES [] NO []
3. Do you have close relatives who stammer? YES [] NO []
4. Do you have close friends who stammer? YES [] NO []
5. Do you stammer yourself? YES [] NO []

APPENDIX II: TRANSCRIPT OF NARRATION

Rose could b-b-bear to leave Jack a-a-a;lone on the ship. Th-th-their love was d-d-d-deep. Jack ch---ided

her f----or being s-s-s stupid and asked why she sssstped out of the re-re-rescue boat.

