Does bedside manner matter? Preferences for speech-language diagnosis delivery methods

by

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Abstract

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Thesis directed by Assistant Professor Christine Brennan

When delivering a communication disorder diagnosis, it is important for speech-language pathologists to offer appropriate counseling, including information about the diagnosis, to patients and their families. It is unclear, however, whether patients and their families prefer that clinicians incorporate additional counseling techniques, such as the demonstration of empathy, when counseling about a communication disorder diagnosis. The aim of this research project was to determine if adults preferred a diagnosis delivery that was more informative, more empathetic, or both informative and empathetic. Forty-one participants, ages 26-76, watched three videos of a clinician delivering a diagnosis of aphasia. The videos portrayed diagnosis deliveries in (1) a more informative manner, (2) a more empathetic manner, and (3) an informatively and empathetically balanced manner. In the three videos, the same actors played the roles of the clinician and the adult son of the person with aphasia. Participants were asked to imagine they were the adult son in the video. After watching each video, participants rated the empathy and informativeness of the diagnosis delivery. After watching all three videos, they indicated their preferred diagnosis delivery. Data analysis examined preference for manner of diagnosis delivery and the ratings of the three deliveries compared to individual demographics and personality types. Results revealed that 66% of participants preferred the Empathetic diagnosis delivery, 29% preferred the Balanced diagnosis delivery, and 5% preferred the Informative diagnosis delivery. The results also indicated that participants' perceptions of the informativeness of the

diagnosis deliveries did not influence their preferences, but that their perceptions of the empathy of the diagnosis deliveries may be related to preference. Additionally, relationships were found between age, number of children, Agreeableness and preference. Interestingly, the small group of participants who preferred the Informative diagnosis delivery shared some similar personality characteristics that differed from the participants who preferred the Empathetic and Balanced diagnosis deliveries. The results of this study will be informative to clinicians who make diagnoses and provide counseling and education regarding those diagnoses to patients and their family members.

Key Words: aphasia, bedside manner, counseling, diagnosis delivery

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I. Review of Literature

The use of counseling is both widely accepted and valued in the field of speech language pathology; however, definitions, evidence-based best practices, and client/patient outcomes of counseling in speech-language pathology remain elusive. The American-Speech-Language-Hearing-Association (ASHA) states that counseling for individuals, families, and caregivers regarding communication disorders is in the scope of practice for speech-language pathologists (2016). Much of the research literature regarding counseling in speech-language pathology hails the use of counseling techniques as instrumental to successful therapeutic interactions and client-centered care (e.g., Dilollo, 2011; Duchan & Kovarsky, 2011; Fourie, Crowley, & Oliviera, 2011; Holland 2007b; Kaderavek, Laux, & Mills, 2004; Lawton, Sage, Haddock, Conroy, & Serrant, 2018; Northcott, Simpson, Moss, Ahmed, & Hilari, 2017; Riley, 2002; Simmons-Mackie & Damico, 2011a); however, more evidence is needed to determine whether patients and families prefer that clinicians use more informative or empathetic counseling techniques. Specifically, there is no current evidence regarding whether patients and families prefer that communication disorder diagnoses be delivered in a more empathetic or more informative manner. The aim of this study was to determine if adults showed a preference for a more empathetic, more informative, or balanced (defined here as equal parts empathetic and informative) diagnosis delivery. This study also examined whether preferences for the manner of diagnosis delivery were associated with any specific demographic factors or personality characteristics.

Informational, or educational, counseling is the process of explaining the "nature, assessment, and treatment of the problem" (Atkins, 2007, p. 5) and has generally been the less controversial and more frequently trained form of counseling among speech-language clinicians

(Atkins, 2007; Beck & Verticchio, 2014; Holland, 2007b; Kaderavek et al., 2004). However, some sources indicate that informational counseling in the absence of other supportive, or empathy-based, counseling techniques may detract from the therapeutic relationship and client empowerment (Beck & Verticchio, 2014; Holland, 2007a; Riley, 2002). For example, when working with patients who have had a stroke, speech-language pathologists often have to deliver a diagnosis of aphasia, an impairment resulting from damage to the brain that causes all elements of an individual's language to be affected (Papathanasiou & Coppens, 2017). Individuals with this diagnosis and their family members may experience significant psychosocial and existential consequences that may be better mitigated by both informational and supportive counseling techniques than by informational counseling alone (Dilollo, 2011; Holland, 2007b; Nyström, 2006; Simmons-Mackie & Damico, 2011a).

In surveys and interviews with speech-language pathology clinicians, the majority of persons interviewed indicated that counseling and addressing psychosocial well-being were parts of their roles (Brumfitt, 2006; Lawton et al., 2018; Northcott et al., 2017; Sekhon, Douglas, & Rose, 2015; Sekhon, Oates, Kneebone, & Rose, 2019). Despite the evidence illustrating the appropriateness and necessity of integrating counseling into their services, many speech-language pathologists do not feel comfortable or confident addressing the psychosocial well-being of their clients (Atkins, 2007; Beck & Verticchio, 2014; Holland, 2007b; Kaderavek et al., 2004; Northcott et al., 2017; Phillips & Mendel, 2008; Sekhon et al., 2015; Sekhon et al., 2019; Simmons-Mackie & Damico, 2011a). This discomfort may lead to avoiding providing counseling and, thus, contribute to less effective therapeutic interactions with patients and families (Holland, 2007b; Riley, 2002; Simmons-Mackie & Damico, 2011a).

The majority of speech-language pathologists attribute lack of confidence in counseling to insufficient training (Atkins, 2007; Northcott et al., 2017; Sekhon et al., 2015). Another reason for discomfort with counseling in speech-language pathology may be the lack of an evidence-based 'gold standard' of care. While the speech-language pathology research literature describes definitions of counseling, key skills that comprise supportive counseling approaches (e.g., rapport, empathy, active listening, nonverbal cues), ideas for incorporating counseling into practice, and the impact counseling may have for patient outcomes; much of the research is qualitative and/or based on personal clinical experience (e.g., Holland, 2007a; Dilollo, 2011; Lawton et al., 2018; Northcott et al., 2017; Riley, 2002). Although clinical experience is an important part of evidence-based practice, more experimental and quantitative research is needed to support or undermine the purported efficacy of practices in counseling and contribute toward determining 'gold standard' counseling practices in speech-language pathology. This establishment of best practices may, in turn, lead to speech-language pathologists' receiving more standardized training and increasing their confidence in incorporating counseling into their practices.

While counseling about a diagnosis is an integral part of speech-language pathologists' clinical responsibilities, more evidence is required to determine if the delivery of a diagnosis would be more effective for and/or preferable to patients and their families if the information were presented in a more empathetic (including key supportive counseling skills discussed in further detail below) or a more informative manner. The aim of this study was to contribute to this research by presenting an Informative diagnosis delivery, an Empathetic diagnosis delivery, and a Balanced diagnosis delivery and having participants indicate their preferences. This study

also examined whether relationships exist between patient and family traits, such as demographic factors and personality characteristics, and diagnosis delivery preference.

Key Terms and Techniques in Counseling

Holland (2007a) states, "both information and support [in counseling] are critical early in the recovery process" (p. 340). As stated above, informational counseling is more clearly defined and established in the field of speech-language pathology, but supportive counseling and its encompassing techniques and terms are not as well delineated. The literature on counseling in speech-language pathology, let alone in other healthcare fields, includes a myriad of recommendations and techniques. In Sekhon et al.'s (2019) discussion of their systematic review of counseling training for clinicians working with people with aphasia, the authors assert that the prevalence of multiple terms with unclear definitions and the use of a wide variety of counseling approaches create "a major issue to identifying the salient features of what may be useful to speech–language therapists' counselling training" (p. 343). Literature regarding counseling in speech-language pathology indicates that clinicians use an assortment of techniques with broad and varying definitions drawn from a range of counseling approaches (e.g., Fourie, 2009; Northcott et al., 2017). Some of the literature argues that adapting an eclectic counseling approach catered to the individual clinician's strengths and personality is more effective for clients and their family members (Riley, 2002; Shames, 2006). Despite Sekhon et al.'s (2019) concern regarding lack of operational definitions and an array of approaches, they also recommend that individual clinician preference and components of various counseling approaches should be considered in future counseling training. This suggests that strict operational definitions and adherence to certain counseling approaches may not be essential to determining best practices.

Frequently described techniques for counseling patients and their families and components of counseling in the literature reviewed here were (a) building rapport, (b) sharing power, (c) fostering optimism and resilience, (d) practicing active listening, (e) demonstrating empathy, (f) providing a safe space to discuss emotions, (g) integrating counseling into intervention tasks, (h) involving family members in counseling, (i) developing personal self-awareness, (j) providing education, and (k) making appropriate referrals. Many of these approaches build off of each other. For example, skills used to demonstrate empathy may also be used to build rapport. The interconnectedness of some of these counseling approaches contributes to the difficulty of establishing operational definitions and underlines the fact that counseling is the sum of a variety of processes. These techniques and related terms are described in the context of speech language pathology, as well as in the context of other fields of healthcare.

Building rapport. Rapport refers to the quality of the client-clinician (or family member-clinician) relationship, otherwise known as the therapeutic alliance (Lawton et al., 2018; Simmons-Mackie & Damico, 2011b; Walsh & Duchan, 2011). The therapeutic alliance can be defined as "interactional and relational processes operating during therapeutic interventions" (Lawton et al., 2018, p. 550). Duchan and Kovarsky (2011) argue that, in the past, building rapport has been seen as a static and somewhat tangential skill in speech-language pathology intervention, used to help clients get their messages across and complete intervention tasks. The current literature suggests that rapport is a dynamic and ongoing process between clinicians and clients and that it should be one of the main goals of intervention in order to improve patient outcomes (Duchan, 2011; Duchan & Kovarsky, 2011, Fourie et al., 2011; Simmons-Mackie & Damico, 2011a, 2011b; Walsh & Duchan, 2011). Integral to establishing rapport are using active

listening, using appropriate nonverbal cues, getting to know the patient, demonstrating empathy, creating a safe space to discuss emotions, sharing power when establishing goals, acknowledging the patient and family's expertise about the disorder, educating the patient and family about the disorder and the role of interventions, fostering optimism, and empowering the patient (Duchan & Kovarsky, 2011; Lawton et al., 2018; McDonald, 2010; Riley, 2002; Simmons-Mackie & Damico, 2011a; Walsh & Duchan, 2011).

Sharing power. Speech-language pathologists receive extensive education regarding communication disorders, and it can be difficult for clinicians to relinquish or share the role of expert in clinical interactions; this asymmetry in power can be to the detriment of therapeutic rapport (American-Speech-Language-Hearing Association, 2016; Atkins, 2007; Holland, 2007a, 2007b; Ferguson & Armstrong, 2004; Fourie et al., 2011; Riley, 2002; Simmons-Mackie & Damico, 2011a). According to Webster (as cited in Holland, 2007b), "Counselors will get along better with parents (and we add individuals and families) when they understand that whenever a counselor meets with one parent (or one individual with a neurogenic communication disorder, or with his or her family), there are two (or more) specialists involved" (p.67). Sharing power involves treating patients and family members as fellow experts regarding the communication disorder, using active listening with patients and family members in order to benefit from their expertise, collaborating with patients and families to problem-solve and create goals relevant to patients, and empowering patients and family members to use existent strengths (in spite of communication disorder) to achieve those goals (American-Speech-Language-Hearing Association, 2016; Dilollo, 2011; Fourie, 2009; Holland, 2007a, 2007b; Kaderavek et al., 2004; Lawton et al., 2018; Riley, 2002). Walsh and Duchan (2011) also assert that sharing power may lead to increased rapport.

Fostering optimism and resilience. Fostering optimism, or a positive outlook, and resilience, or the ability to live, and even flourish, with a disorder, is the key tenet of positive psychology, a counseling approach promoted by Holland (2007a, 200b). In using positive psychology, speech-language pathologists focus on patients' and family members' strengths and improvements, while helping them maintain a realistic view of problems and weaknesses (Holland & Fridriksson, 2001; Holland 2007a, 2007b). Patients and family members are encouraged to use existent strengths to achieve goals, which Holland (2007a, 2007b) argues will encourage resilience, empowerment, self-trust, and optimism. Resilience is the ability to thrive in adversity, one component of which is to trust oneself to solve problems (Holland 2007a, 2007b). Empowering patients and family members by sharing power, demonstrating empathy, creating a safe space to discuss emotions, and emphasizing patients' and family members' strengths can all contribute to resilience, according to Riley (2002) and Holland (2007a, 2007b).

Practicing active listening. Throughout the literature on counseling in speech-language pathology, applying active listening with patients and their families is advocated as a key skill (Beck & Verticchio, 2014; Dilollo, 2011; Fourie et al., 2011; Geller, 2010; Holland, 2007b; Kaderavek et al., 2004; Riley, 2002; Shames, 2006; Simmons-Mackie & Damico, 2011a). Specifically, active listening requires that the clinician focus all of their attention on the speaker, demonstrate appropriate nonverbal cues and pauses to convey understanding and interest, attune to and interpret both verbal and nonverbal (or manifest and latent) meanings in the speaker's output, and check the accuracy of what has been understood with the speaker (Holland, 2007a; Dilollo, 2011; Duchan, 2011; Kaderavek et al., 2004; Riley, 2002; Simmons-Mackie & Damico, 2011a). Beck and Verticchio (2014) state that active listening allows the clinician "to differentiate between the content and the affective components of a client's message and respond

appropriately when a client is actually asking for recognition of the emotional components of a communication disorder…" (p. 134). This process of picking up on and interpreting patients' and family members' latent meanings is also known as attunement. Attunement can be conveyed nonverbally via head nodding, eye contact (if culturally appropriate), facial expression, vocal intensity, body position, and posture or verbally via reflections of what was understood (Duchan, 2011; Holland, 2007b; Kaderavek et al., 2004). Practicing active listening provides opportunities to demonstrate empathy verbally or nonverbally, build rapport, create a safe space for patients and family members to discuss emotions, empower patients and family members by acknowledging their expertise, and gather information that may inform the direction of intervention (Beck & Verticchio, 2014; Duchan, 2011; Holland, 2007b; Kaderavek et al., 2004; McDonald, 2010; Riley, 2002; Simmons-Mackie & Damico, 2011a).

Demonstrating empathy. The ability to demonstrate empathy, or understanding, is among the clinician traits most valued by clients (Fourie, 2009). Research literature regarding counseling in speech-language pathology and in other healthcare fields overwhelmingly advocates that clinicians employ this technique in intervention (Beck & Verticchio, 2014; Duchan, 2011; Geller, 2010; Hansen et al., 2018; Hojat et al., 2011; Holland, 2007b; Lawton et al., 2018; McCarley, 2009; McDonald, 2010; Mercer & Reynolds, 2002; Riley, 2002; Yu & Kirk, 2009; Walsh & Duchan, 2011). Of all the counseling techniques and components highlighted in this paper, empathy is perhaps the most broadly (and often vaguely) defined and the most interconnected with the other components. Mercer and Reynolds (2002) summarize the intangible definition of empathy well: "Much of this confusion can be seen as arising from the fact that empathy is both a complex process (i.e. a multi-dimensional, multi-phase construct that has several components) and a concept whose meaning continues to evolve" (p. S10). Walsh and

Duchan (2011) define empathy as "the understanding of another's emotions" (p.54). Holland (2007b) asserts that "achieving compassion, or empathy, comes from growing closer to what others are going through," but adds that "empathy still stops short of being in another's skin. You can only know just how *you* feel" (p.79-80). Riley (2002) describes an "empathic environment" in which a clinician is caring, accepting, self-aware, and adept at active listening. In a review of literature regarding empathy in the medical field, Mercer and Reynolds (2002), define empathy as the ability to "a) understand the patient's situation, perspective and feelings (and their attached meanings); b) to communicate that understanding and check its accuracy; and, c) to act on that understanding with the patient in a helpful (therapeutic way)" (p. S11). They also posit that "clinical empathy can be seen as a form of professional interaction (a set of skills or competencies), rather than a subjective emotional experience or a personality trait that you either have or don't have" (Mercer & Reynolds, 2002, p. S10). These descriptions may not entirely clarify the concept of demonstrating empathy, but it is clear that empathy can be described as both a sum of counseling parts and an integral component in other counseling techniques. Kaderavek et al.'s (2004) counseling training model stressed the importance of:

> paraphrasing, accepting, and responding appropriately to clients' negative emotions such as anger, fear, or sadness… [E]ffective intervention should include opportunities for clients and families to discuss negative emotions associated with their communication disorder. If the SLP is able to hear these feelings, accept them, and reflect them back to the client—the client has the opportunity to work through these feelings (pp.156-157).

In the example above and in other research, active listening and attunement can be used to express empathy, and opportunities to express empathy may appear when clinicians check their understanding of what patients and family members are conveying (Duchan, 2011; Holland

2007b; Riley, 2002). Creating a safe space to discuss emotions generates opportunities to demonstrate empathy which can strengthen the therapeutic alliance (McDonald, 2010; Riley, 2002; Walsh & Duchan, 2011). Riley (2002) asserts that demonstrating empathy may be essential to creating this safe space to discuss feelings. Acknowledging and empathizing with feelings contribute to patients' and family members' empowerment and resilience (Holland, 2007b; Kaderavek et al., 2004; Riley, 2002; Walsh & Duchan, 2010). Lastly, much of the literature suggests empathy and its constituent parts may be prerequisite to effective therapy (Holland, 2007a, 2007b; Geller, 2010; Lawton et al., 2018; Riley, 2002; Simmons-Mackie & Damico, 2011a; Walsh & Duchan 2010).

Providing a safe space to discuss emotions. When providing a safe space to discuss emotions, the clinician creates "an environment of unconditional acceptance and respect for the client….The client feels such emotions of sadness, anger, fear, and hurt, with the clinician being empathetic and nonjudgmental" (Riley, 2002, p.7). In this context, not only can the client or family members share feelings without judgment, the speech-language pathologist also reflects back and/or affirms these feelings (Beck & Verticchio, 2014; Holland, 2007a, 2007b; Kaderavek et al., 2004; Luterman, 2001). Affirming means accepting the emotions the patients or family members are sharing and providing unconditional positive regard, or the notion that "…the counselor is on the client's side, is there to offer help, and is there to understand" (Holland, 2007b, p. 82). The research literature regarding counseling in speech-language pathology largely promotes creating such an accepting and nonjudgmental environment where patients and family members can discuss the emotions related to the patients' communication disorders (Duchan, 2011; Holland, 2007b; Kaderavek et al., 2004; Kovarsky, 2008; Riley, 2002; Simmons-Mackie & Damico, 2011a; Walsh & Duchan, 2011). In support of integrating discussion about emotions

into counseling for people with communication disorders, Simmons-Mackie and Damico (2011a) point out:

> [f]or many clients, this is their only opportunity to discuss issues of importance with someone who is skilled in facilitating communicative participation. Although supported discussion of emotional issues might take time away from planned tasks, discussing emotionally difficult topics offers opportunities for relationship building, authentic communication practice, and successful experience with problem-solving (p.348).

Thus, as Simmons-Mackie and Damico (2011a) assert above, speech-language pathologists' creation of a safe space for people with communication disorders to discuss their emotions is not only a potentially important outlet for people who have difficulty communicating, but it can also foster rapport-building, resilience, and empowerment (Duchan, 2011; Kaderavek et al., 2004; Lawton et al., 2018; Simmons-Mackie & Damico, 2011b).

Integrating counseling into therapy tasks. Sekhon et al. (2019) define counseling as "both the general working (therapeutic) relationship that underlies all clinical service activities and interactions designed to deal with specific needs or problems of the individuals and their families" (p. 323). This concept of counseling being integrated into all intervention tasks and/or intervention tasks being constructed around counseling moments is supported in literature by Holland (2007b), Simmons-Mackie and Damico (2011a), and Walsh and Duchan (2011). In response to concerns that clinicians do not have enough time to practice counseling (e.g., Lawton et al., 2018), Dilollo (2011) states that "[t]hese barriers only become a problem for clinicians if they conceptualize counseling as something they have to do *in addition* to their regular therapy… [C]ounseling should be an *integrated* part of everything that clinicians do with their clients" (p.152).

Involving family members in counseling. ASHA stipulates that counseling the family members of a person with a communication disorder is within the speech-language pathologist's scope of practice (American-Speech-Language-Hearing Association, 2016). Based on findings by Lawton et al. (2018) and Northcott et al. (2017), speech-language pathologists view family members as an important part of the therapeutic alliance and effective intervention and work frequently with families and significant others to provide emotional support or work on communication strategies. Research literature suggests that family members benefit from the aforementioned counseling components and that family buy-in may be essential for clinician-client rapport, effective counseling and fostering patient resilience (Geller, 2010; Holland, 2007a, 2007b; Lawton et al., 2018). Additionally, the family, as an expert on the communication disorder, may yield valuable insights for intervention (e.g., Holland, 2007b).

Developing personal self-awareness. Literature regarding counseling in speech-language pathology advocates that clinicians develop a sense of awareness of their own values, beliefs, behaviors, and feelings (Flasher & Fogle, 2012; Holland, 2007b; Riley, 2002; Simmons-Mackie & Damico, 2011a). Increased self-awareness allows clinicians to more clearly distinguish their thoughts and feelings from clients' and family members' thoughts and feelings, which allows for increased mindfulness, greater emotional stability, more ease offering empathy and shared power, and better active listening (Flasher & Fogle, 2012; Riley, 2002). Ross (2011) argues that increased self-awareness on the part of clinicians may help them avoid burnout and counter-transference, thereby allowing them to better serve clients and family members.

Providing education. As described earlier, informational counseling is the process of educating patients and family members about the characteristics, assessment, and treatment of the communication disorder (Atkins, 2007). As illustrated above, this form of counseling is more

established in the field of speech-language pathology than supportive counseling. However, "both types seem to be necessary for competent counseling, and in actual use, their boundaries frequently are blurred" (Holland, 2007b, p. 77). When educating patients and families about a communication disorder, the clinician should be careful to avoid jargon and to speak at the listeners' levels of understanding in order to foster patient and family empowerment in their care (Holland, 2007b; Simmons-Mackie & Damico, 2011a). Holland (2007b) suggests that in the early stages following the diagnosis of a communication disorder the patient and family members are not able to absorb all the information regarding the disorder and may require more supportive, or empathetic, counseling in the form of active listening, demonstrating empathy, and discussing emotions. Clinicians should continue to provide relevant information, but they should be prepared to repeat themselves and to offer pamphlets, videos, phone numbers, and other more permanent forms of information (Holland, 2007b).

Making appropriate referrals. Although speech-language pathologists may offer counseling related to communication disorders, it is important for them to make referrals to appropriate mental health professionals when patients or family members' counseling needs are outside the boundaries of speech-language pathology (American-Speech-Language-Hearing Association, 2016; Flasher & Fogle, 2012; Holland, 2007a, 2007b; Kaderavek et al., 2004).

Evidence Supporting Counseling Methods and Patient Outcomes

The use of the concepts and components listed above is advocated by speech-language pathologists on the basis of clinical experience, expert opinion, and/or descriptive studies, but in the field of speech-language pathology there has been little quantitative or experimental evidence supporting the use of supportive counseling methods (e.g., building rapport, empowering patients and family members, fostering resilience and optimism, demonstrating empathy) to improve

patient and family outcomes. There is slightly more evidence linking counseling methods and patient outcomes from research in other healthcare fields, including psychology, psychotherapy, medicine, and nursing.

Evidence supporting use of rapport. Simmons-Mackie and Damico (2011b) state that "[a]lthough subtle aspects of the clinical interaction can positively or negatively affect the therapeutic relationship, the interactive element of therapy is not often described in effectiveness research or evidence-based practice reviews" (p.37). In psychology and medical literature, however, there is considerable evidence supporting the positive relationship between the therapeutic alliance and patient outcomes (Arnow et al., 2013; Fourie et al., 2019; Hall, Ferreira, Maher, Latimer, & Ferreira, 2010; Joe, Simpson, Dansereau, & Rowan-Szal, 2001; Kayes, McPherson, & Kerston, 2015; Lawton et al., 2018; Martin, Garske, & Davis, 2000; Salvaggio, Kim, Taylor, & Wild, 2013). In a randomized controlled trial, Arnow et al. (2013) found that adults with depression in psychotherapy treatment who rated their therapeutic alliance highly demonstrated lower depression symptom ratings independent of the psychotherapy approach they received. These findings may be significant for speech-language pathologists working with clients with aphasia, who have a greater risk of depression (Atkins, 2007; Holland, 2007a, 2007b; Northcott et al., 2017; Nyström, 2006). Joe et al., (2001) examined the relationship between counseling rapport, as measured by counselor ratings, and drug abuse treatment outcomes in a non-profit treatment cohort and a private treatment cohort and found that low rapport during treatment predicted worse treatment adherence and outcomes. (Joe et al., 2001). Significantly, Joe et al. (2001) found that, of the counseling strategies used by counselors, goal setting with patients was found to be predictive of counseling rapport. This may be significant for speech-language pathologists working with patients and family members: sharing power

through goal collaboration may also target building rapport. After summarizing some of the literature in psychotherapy linking rapport to patient outcome, Fourie et al. (2011) assert: "[i]t is plausible that the quality of the therapeutic relationship in speech–language therapy may also be an important predictor of outcomes" (p. 311); however, more research is required to support this theory (Lawton et al., 2018; Simmons-Mackie & Damico, 2011b).

Evidence supporting shared power. Simmons-Mackie and Damico (2011b) promote the use of power-sharing with patients and family members in order to empower them to take a greater role in their treatment, better inform intervention decisions, and build the therapeutic alliance. McCarley (2009) summarizes evidence in the field of nursing that empowering patients by sharing power, using active listening, building rapport, and demonstrating empathy may contribute to better patient outcomes. A study by Wong et al. (2014) examining the effect of a patient empowerment program (PEP) on type 2 diabetes patients found that patients who participated in PEP had improved health outcomes and fewer doctor visits than those patients who did not participate. However, the participants in Wong et al.'s (2014) study voluntarily enrolled in the PEP program and may, therefore, have been more motivated to improve health outcomes than the other group.

Evidence supporting fostering optimism and resilience. While empirical evidence for the effectiveness of positive psychology and fostering optimism in speech-language pathology counseling is lacking, several authors and studies argue for the importance of optimism (Holland, 2007a, 2007b; Riley, 2002) and Lawton et al. (2018) argue "it could be postulated that the generation of hope is closely associated with alliance formation" (p. 559-560). The association between optimism and hope and patient and caregiver outcomes is well established in healthcare fields (Cross & Schneider, 2010; Lewis, Dennis, O'Rourke, & Sharpe, 2001; Nekolaichuk,

Jevne, & Maguire, 1999); however, while fostering optimism is encouraged in speech-language pathology literature, more evidence is needed to support this assertion. A systematic review by Bright, Kayes, McCann, and McPherson (2011) found that hope was associated with positive outcomes and motivation during recovery after stroke. Applebaum et al. (2014) found that high levels of optimism were associated with less symptoms of anxiety and depression, more resilience, and better quality of life in patients with advanced cancer.

The literature regarding resilience is more established than that regarding optimism in speech-language pathology, particularly concerning working with people who stutter (PWS). Resilience has been found to encourage greater life satisfaction and self-acceptance in PWS, and parent implementation of resilience programs were found to encourage self-regulation and resilience in children who stutter (Druker, Mazzucchelli, & Beilby, 2019; Plexico, Erath, Shores, & Burrus, 2019). Resilience has also been associated with improved patient outcomes in other healthcare fields (Drayer et al., 2019; Duchesne, Martin, & Michallet, 2017; Sima et al., 2019).

Evidence supporting active listening. Although active listening is recommended in both speech-language pathology literature and in other healthcare fields, such as nursing and psychology, and promoted as a means of improving patient outcomes (e.g., Bryant, 2009; Holland, 2007b; McCarley, 2009; Riley, 2002; Simmons-Mackie & Damico, 2011b; Warren, 2010), an initial search of the literature revealed limited empirical evidence demonstrating the efficacy of active listening. The evidence available in speech-language pathology is based more on clinical expertise. For example, in interviews conducted by Lawton et al. (2018), speech-language pathologists indicated that their ability to attune to patient's nonverbal cues (a key component of active listening) "was perceived to dictate how effectively they could respond to patient apathy or decide when it is appropriate to push or not to push…" (p.557). In the research

regarding active listening skills outside of healthcare, there is some evidence that indicates people who prioritize active listening and other emotional support skills may care more about the quality of their communication partner's support skills than people who value these skills to a lesser extent (Bodie & Burleson, 2008; Bodie, Keaton, & Jones, 2018) Bodie, Vickery, Cannava, and Jones (2015) found that verbal and nonverbal active listening behaviors are associated with greater perceptions of emotional attunement. In other words, the speaker felt that his or her emotions were better understood by the listener when the listener demonstrated active listening skills. Jones and Guerrero (2001) found that nonverbal behaviors, such as head nodding, smiling, leaning forward, and using eye contact, significantly shape communication partners' perceptions of whether they feel comforted while communicating about an emotionally upsetting event. Further research is needed to demonstrate the efficacy of using both verbal and nonverbal behaviors in healthcare settings to improve patient outcomes.

Evidence supporting the use of empathy and creating a safe space to discuss feelings. Much of the evidence surrounding empathy encompasses including a space to discuss feelings; therefore, these two components are combined here. Mercer and Reynolds (2002) illustrate the relationship between these two concepts, suggesting "empathy can help create an interpersonal climate that is free of defensiveness and that enables individuals to talk about their perceptions of need" (p. S9). As stated earlier in this review, the speech-language pathology field is rife with literature underlining the importance and effectiveness of incorporating empathy into counseling practice; however, there is little quantified or experimental evidence supporting these claims. However, Fourie's (2009) interviews with eleven adults with communication and/or swallowing disorders revealed that being understanding, or empathetic, was one of the therapeutic qualities they found most effective in clinicians. In other healthcare fields,

associations have been found between therapist empathy and more comprehensive case histories, better attunement with patients, reduced patient stress, better therapeutic alliance, better treatment adherence, greater patient empowerment, and overall improved patient outcomes (Halpern, 2001; Hojat et al., 2011; Irving & Dickinson, 2004; Klimecki, Leiberg, Ricard, & Singer, 2014; Larson & Yao, 2005; Mercer, Reilly, & Watt, 2002; Mercer & Reynolds, 2002; Neumann et al., 2011; Palmer & Thain, 2010; Rakel et al., 2011; Shattell, Starr, & Thomas, 2007; Yu & Kirk, 2009). A meta-analysis by Elliott, Bohard, Watson, and Murphy (2018) found that therapist empathy measures were strong predictors of therapy outcome; however, they also found that therapist, client, and observer perceptions of empathy were better predictors of patient outcomes than accurate attunements were. In other words, the perceived used of empathetic behavior was more influential on patient outcome than the therapist's accuracy in determining the patient's inner feelings. This finding could be significant for clinicians who feel uncertain about attuning incorrectly to how a patient or family member is feeling: it may still be valuable to engage in attunement and empathetic behaviors even if the latent meaning is interpreted incorrectly. While not necessarily in opposition to empathy and discussing feelings, it may be important to note that while Shattell et al.'s (2007) interviews with mental healthcare recipients revealed the importance of therapist empathy, they also demonstrated the importance of getting to the point (or solution to problems associated with the disorder). Participants noted that sometimes therapists wanted to talk too much about the emotions associated with the disorder when the participants felt they could have benefitted from more blunt, honest feedback (Shattell et al., 2007). More research is needed to determine causality in the relationships between empathy and patient outcomes, as well as the role of blunt or more feelings-oriented feedback when counseling patients and their family members.

Another clinical implication of incorporating empathy into speech-language pathology counseling practice is that it has been associated with compassion fatigue, or negative emotional and cognitive effects of empathizing frequently, such as burnout, (e.g., as a result of working in a helping profession) (Figley, 2002; Hansen et al., 2008). Burnout has been associated with lower quality care for patients and job attrition (Wilkinson, Whittington, Perry, & Eames, 2017). Conversely, other research indicates that compassion satisfaction, or the positive cognitive and emotional effects of feeling empathy, may protect against burnout (Wagaman, Geiger, Shockley, & Segal, 2015; Wee & Meyers, 2002). In their systematic review of quantitative studies concerning the relationship of empathy and burnout in medical professionals, Wilkinson et al. (2017) found a consistent negative relationship between burnout and empathy, meaning that healthcare professionals with more empathy experienced less burnout, although more research is needed to determine causality. Wilkinson et al. (2017) point out that the heterogeneity of their samples (all medical professionals in different fields) may indicate the applicability of their findings to all healthcare professionals and support the need for training in empathy to help prevent burnout. Hansen et al. (2008) found that the intensity of the empathetic reactions that lead to compassion fatigue and satisfaction decrease over time, and Neumann et al. (2011) found that, in a systematic review of 18 studies involving medical students, there was a downward trend in empathy over time. Although these decreases in empathy and empathetic reaction intensity may result in less compassion fatigue and less burnout, they may also result in less compassion satisfaction for clinicians and less empathy in interactions with patients and families. Further research is needed regarding the relationship of empathy and burnout in speech-language pathology and to discover how to avoid compassion fatigue and increase compassion satisfaction in speech-language pathologists.

Lack of Clinician Confidence in Providing Counseling

Given the lack of evidence supporting counseling methods in field of speech-language pathology, it is perhaps unsurprising that speech-language pathologists may "resist the counseling relationship in clinical interactions" (Simmons-Mackie & Damico, 2011a, p.337). As stated above, the literature in speech-language pathology is rampant with references to speech-language pathologists' not feeling confident addressing the psychosocial well-being of their clients (Atkins, 2007; Beck & Verticchio, 2014; Holland, 2007b; Kaderavek et al., 2004; Northcott et al., 2017; Phillips & Mendel, 2008; Sekhon et al., 2015; Sekhon et al., 2019; Simmons-Mackie & Damico, 2011a). For example, in counseling people with aphasia, a disorder generally accompanied by extreme psychosocial challenges, only 31-41% of speech-language pathologists surveyed felt confident providing psychosocial counseling to this population (Northcott et al., 2017; Sekhon et al., 2015).

The reasons for discomfort with counseling may vary. While there are several key components of counseling in speech-language pathology that are frequently emphasized, many of these concepts lack operational definitions and overlap with each other, as demonstrated above, making it difficult to establish a 'gold standard' in counseling care. Although evidence surrounding the effectiveness of supportive counseling techniques is available in other healthcare fields, research related to counseling in speech-language pathology is scarce (Kaderavek et al., 2004). Furthermore, speech-language pathologists overwhelmingly cite a dearth of training as one of the reasons for their lack of confidence in providing counseling to patients and families (Atkins, 2007; Austin, Evans, Magnus, & O'Hanlon, 2007; Dilollo, 2011; Holland, 2007; Northcott et al., 2017; Phillips & Mendel, 2008; Sekhon et al., 2015; Sekhon et al., 2019). ASHA currently has no required counseling curriculum for speech-language pathology graduate

students, and many speech-language pathology graduate programs do not require a counseling course (Atkins, 2007; Beck & Verticchio, 2014; Holland, 2007b; Kaderavek et al., 2004; Phillips & Mendel, 2008).

When an opportunity to provide counseling during intervention or diagnosis delivery presents itself, clinicians may respond to their discomfort in non-therapeutic ways, including discussing facts instead of acknowledging emotions, using humor to deflect emotional reactions, shifting directly to intervention tasks, engaging in superficial conversation, changing the subject, or talking excessively (Riley, 2002; Simmons-Mackie & Damico, 2011a). Many of these avoidant behaviors are contraindicated by the existing literature on counseling in speech-language pathology described above. The research suggests that speech-language pathologists do benefit from counseling trainings and small to moderate correlations have been found between counseling training and confidence providing appropriate counseling to clients with communication disorders (Atkins, 2007; Kaderavek et al, 2004; Sekhon, 2015; Sekhon et al., 2019). Generating a greater research base may help lead to the establishment of standards for counseling training and 'gold standard(s)' of counseling care in speech language pathology that will help clinicians feel more confident delivering counseling to their clients.

The Current Study

To date, there are no empirical investigations focusing on patient preferences for how diagnoses are presented by clinicians to patients and/or their families. The current study aimed to identify if adults have preferences for the manner in which a diagnosis of aphasia is delivered. It was hypothesized that most participants would prefer an empathetic diagnosis delivery that included many of the evidence-based counseling techniques reported in other medical fields and supported by studies within speech-language pathology. By presenting videos of diagnosis

deliveries that show the clinician being more empathetic, more informative, or both empathetic and informative, we aimed to determine the manner of delivery preferred by the majority of participants. Additionally, we aimed to compare preferences to demographic factors such as age, gender, employment, education, etc., and personality characteristics to determine if such factors were associated with specific preferences. The results of this study provide further information about the manner in which such diagnostic information is preferred by participants and family members. The results impact service-delivery in speech-language pathology and may encourage speech-language pathologists to deliver diagnoses using supportive and informational counseling methods, rather than avoiding counseling moments. This research motivates future studies that aim to investigate the role of empathy in intervention and the effect of adjusting the manner of diagnosis delivery and intervention based on individual demographics and personality.

In the description of the study that follows, "preference" is used to describe participants' predicted preferences for diagnosis delivery manner in the hypothetical situation presented here. The more empathetic video is referred to as the Empathetic diagnosis delivery, the more balanced video is referred to as the Balanced diagnosis delivery, and the more informative video is referred to as the Informative diagnosis delivery.

II. Research Questions

1. Do individuals prefer speech-language pathologists to deliver hypothetical diagnoses of aphasia about family members/loved ones in a more informative, more empathetic, or equally informative and empathetic manner?
2. Do individual demographics (age, gender, education level, career, etc.) influence the preference for manner of diagnosis delivery?
3. Do an individual's self-reported personality traits correlate with the manner of diagnosis delivery preferred?

III. Methods

Design

This study utilized an experimental design. The dependent variables were (1) participants' predicted preferences for diagnosis delivery and (2) the degree to which each diagnosis delivery is perceived as informative or empathetic as measured by participants' responses to Likert scale and binary questions. The independent variables included individual demographics and individual self-reported personality traits. Personality traits were measured by the research-based self-report inventory known as The Big Five Inventory (BFI; Benet-Martinez & John, 1998; John, Donahue, & Kentle, 1991; John, Naumann, & Soto, 2008).

Participants

Participants were recruited via convenience sample from the University of Colorado and the nearby community using e-mail announcements in accordance with IRB requirements. Interested parties were given a screener questionnaire to determine whether they met the inclusion/exclusion criteria (see Appendix A). Inclusion criteria for involvement in this study required that participants were (1) between the ages of 18 and 84; (2) able to read, write, and understand English; and (3) have or have had one or more parents who are/were age 60 or older. An additional inclusionary criterion was that participants reported having had at least one experience receiving what they perceived to be "concerning results" (defined below) from a health professional about themselves or a loved one. Exclusionary criteria for participants included (1) current, uncorrected hearing loss; (2) current, uncorrected vision loss; (3) neurological disease or learning disabilities; and (4) more than a cursory knowledge of or experience with aphasia.

Participants were required to have or have had one or more parents age 60 or older because the likelihood of health problems increases with age, and the majority of patients hospitalized for stroke are over age 65 (Hall, Levant, & DeFrances, 2012). Participants with parents over 60 were expected to be more likely to have real-life experiences with parents' health concerns, making the hypothetical situation used in this study more relatable to them. Specifically, participants were asked to imagine their reactions to a parent receiving a diagnosis following a stroke; therefore, this inclusion criterion was hypothesized to create a participant pool that would be more sensitive to this scenario and, therefore, more accurate in predicting their reactions.

Participants were also required to have experience receiving "concerning results." Here, concerning results are defined as medical results that are either inconclusive, confirming a new medical diagnosis, or revealing a health change that requires attention. A concerning inconclusive result might be receiving the news that further testing or a referral to another healthcare professional is needed to confirm or rule out a new diagnosis; for instance, an inconclusive mammogram would require further testing. A confirmed, new medical diagnosis could be confirmation of a new, previously undetected/unidentified malignancy, such as a diagnosis of cancer. An example of a health change that requires attention could be a change in blood pressure or elevated insulin levels. The rationale for this inclusionary criterion was motivated by research on affective forecasting, or people's predictions of how they will feel or what they will prefer in the future (Kramer & Lagattuta, 2018). The research surrounding affective forecasting indicates that individuals are often poor at accurately predicting their responses to future events and tend to predict they will experience more intense feelings in response to both positive and negative events than they actually experience in these events

(Ayton, Pott, & Elwakili, 2007; Buehler & McFarland, 2001; Kramer & Lagattuta, 2018;). Buehler and McFarland (2001) found that individuals were better at making less intense predictions about their own emotional responses and future preferences in hypothetical situations when they focused on past relevant experiences. The researchers argued that focusing on past experiences could prevent individuals from overinflating the significance of a single future event (Buehler & McFarland, 2001). Based on this research, and in an attempt to increase the accuracy of participants' affective forecasts, participants were required to have experience receiving concerning results. They were asked to think about these real-life experiences while watching videos depicting a hypothetical diagnosis delivery and predicting which diagnosis manner they would prefer.

Participants were also required to have no current, uncorrected hearing or vison loss that would prevent them from being able to see and hear the diagnosis delivery videos. In order to have a homogenous group that would allow potential generalization of results to a larger group, individuals with neurological disease or learning disability were excluded from participation. Lastly, participants with more than a cursory knowledge of aphasia were excluded from participation due to possible bias that might influence results.

Participants included forty-one typical English-speaking adults, ages 26-76 years, with a mean age of 45 years. This sample consisted of 19 (46.3%) males, 19 females (46.3%), and three (7.4%) individuals who identified as neither male nor female. Thirty-four (83.0%) participants identified as white, three (7.3%) as Asian, two (4.9%) as mixed (white and Asian), one as black (2.4%), and one (2.4%) as American Indian. Three (7.3%) of the participants identified as ethnically Hispanic/Latino. Eight (19.5%) of the participants worked in education; six (14.6%) in physical and mental healthcare, five (12.2%) in business and finance, three (7.3%) in sales, two

(4.9%) in the legal field; three (7.3%) in technology, three (7.3%) in research, and two (4.9%) in the service industry. Nine (22%) participants were unemployed, retired, or stay-at-home-parents. Seventeen (41.5%) participants were single, 20 (48.7%) were married, and four (9.8%) were separated, divorced, or in committed partnership. Nineteen (46.3%) of participants had children. Twelve (29.3%) participants had one or more deceased parents. Key demographic factors are summarized in Table 1 below.

Table 1

Demographic Characteristic	*n*	%
n	41	
Gender Identity		
Male	19	46.3
Female	19	46.3
Other	3	7.4
Age (range: 26-76, M = 45.0)		
25 – 34	12	29.2
35 – 44	15	36.6
45 – 54	4	9.8
55 – 64	1	2.4
65 – 74	8	19.5
≥ 75	1	2.4
Race		
Black	1	2.4
American Indian	1	2.4
White	34	83.0
Asian	3	7.3
Mixed (White and Asian)	2	4.9
Ethnicity		
Hispanic/Latino	3	7.3
Non-Hispanic/Non-Latino	38	92.7
Occupation		
Sales	3	7.3
Business and Finance	5	12.2
Legal	2	4.9
Healthcare (physical and mental)	6	14.6
Technology	3	7.3
Research	3	7.3
Education	8	19.5
Service Industry	2	4.9
Unemployed/Retired/Stay-at home parent	9	22.0

Table 1 Demographic Characteristics of Participants

Participants also completed the BFI, rating themselves on 44 items on a scale of one to five. Resulting scores represented the Extraversion (sociability), Agreeableness (altruism), Conscientiousness (goal-directedness), Neuroticism (anxiousness), and Openness (originality) of the participants. See Table 2 for the results of the BFI including score ranges and means among

participants. While there are no published norms for the BFI, Srivastava, John, Gosling, and Potter (2003) found mean BFI scores for a large (N = 132,515) sample of adults ages 21-60 years. The means for the participants in this study were all within one standard deviation from the means in the comparative sample for all age groups, indicating that the mean scores collected in this study are likely typical BFI scores.

Table 2

Big Five Inventory Personality Trait	Score Range	Mean Score
Extraversion	1.50 – 4.88	3.11
Agreeableness	2.56 – 5.00	3.93
Conscientiousness	2.33 – 5.00	3.71
Neuroticism	1.00 – 4.63	2.91
Openness	2.10 – 4.70	3.84

Table 2 Personality Traits of Participants. The Big Five Inventory (BFI) asks participants to rate how much they agree or disagree with 44 statements about themselves on a scale from 1 to 5. The statements each correspond to one of the five traits, and ratings for each trait are averaged to produce an overall score. The means for the participants in this study were all within one standard deviation from the means in a comparative sample (Srivastava et al., 2003), indicating that the scores presented here are within the typical range of BFI scores.

Video Stimuli

Video stimuli included three videos that showed diagnosis deliveries (see Appendix B). Each video used one of three scripts: (1) Informative, (2) Empathetic, and (3) Balanced (defined here as equal parts empathetic and informative). In each script, an actor portraying a speech-language pathologist delivered a diagnosis of aphasia to the patient's adult son (also portrayed by an actor). The patient's son had the same lines in all three scripts, consisting of 6 questions interspersed throughout the interaction. The speech-language pathologist's lines in all three scripts were 37 sentences in length, had similar syntactic complexity, and conveyed the same general information. The speech-language pathologist's lines differed in each script in order to

convey (1) an Informative diagnosis delivery, (2) an Empathetic diagnosis delivery, and (3) a Balanced diagnosis delivery (informative and empathetic). The speech pathologist's lines in the Informative script were composed of 23 informative statements, 9 empathetic statements, and 5 neutral statements (see Appendix C). Her lines in the Empathetic script were composed of 23 empathetic statements, 9 informative statements, and 5 neutral statements (see Appendix D). The speech-language pathologist's lines in the Balanced script were composed of 16 empathetic statements, 16 informative statements, and 5 neutral statements (see Appendix E). Here, informative was defined as conveying useful or interesting information ("Informative: Definition," n.d.). Empathetic was defined as showing the ability to understand and share the feelings of another ("Empathetic: Definition," n.d.). Neutral statements were neither informative nor empathetic (e.g., "Here's my card"). All three scripts incorporated counseling components from the current literature regarding speech-language pathology counseling highlighted in the Review of Literature above (see Table 3).

Table 3

Counseling component	Examples
Building rapport	- "We'll all work together…." - "Please know that I am here to support both you and your family." - "For example, during the evaluation, he told me he loves to write poetry…"
Sharing power	- "We'll all work together to come up with goals for your father that address *his and your* needs."
Fostering optimism and resilience	- "…your father's language skills will improve in the weeks and months ahead, especially if he receives speech therapy." - "We will get started right away on giving your father the best possible care."
Practicing active listening	- appropriate nonverbal cues - attunement: "I know it can be hard to think of questions when someone is throwing a lot of information at you." - pausing
Demonstrating empathy	-appropriate nonverbal cues - "I imagine it can be hard and frustrating to wait for your father as he tries to find the words he intends to say, but please try your best to be patient with him." - "It might be hard to see your father unable to participate in activities he used to enjoy."
Providing a safe space to discuss emotions	- " It can be very frustrating for family members of people with aphasia to think that their loved one doesn't understand what they're saying…" - "It probably feels scary that your father has changed a lot in a short amount of time."
Integrating counseling in therapy tasks	Integrating counseling in diagnosis delivery
Involving family members in counseling	Patient's son is involved in counseling
Developing personal self-awareness	Not addressed
Providing Education	- "Aphasia is caused by damage to the left hemisphere of the brain, specifically the frontal, temporal, and parietal regions, which together are referred to as the language zone." - "In therapy, we will work on improving your father's speaking, writing, and conversational skills."
Making appropriate referrals	Not addressed

Table 3 Counseling Components and Examples in Diagnosis Delivery Scripts and Videos

In each of the diagnosis delivery videos, the same two actors portrayed the speech-language pathologist and the patient's son. Both actors were enrolled in the CU Boulder Clinical MA-SLP program at the time of filming. In each video, the speech-language pathologist and son followed one of the three scripts described above. Because the son's lines were the same in all three scripts, the same clips of the actor portraying the son were used in each video to control for influence of differences in the son's affect and tone on preference and rating. In addition to following the scripts, the actors used facial expressions, body language, and intonation appropriate to their lines and the hypothetical situation. The actor playing the speech-language pathologist was instructed to use fewer nonverbal cues when delivering informative statements and more nonverbal cues when delivering empathetic statements. This decision was made based on literature indicating that nonverbal cues are part of supportive, or empathetic, counseling (e.g., Bodie et al., 2105; Duchan, 2011; Holland, 2007b; Lawton et al., 2018). Aspects visible to the viewer, such as the office setting, actor clothing, lighting, and sound, were kept as consistent as possible in all three videos.

Each diagnosis delivery video began with instrumental music and the same clip of the actors entering an office and sitting down at a table across from each other. Subsequently, a title screen appeared for 15 seconds before the actors were shown again and began delivering their lines. Each video was titled the name of a color to avoid viewers' preferences and ratings being influenced by titles that might be associated with the video's design. The Informative diagnosis delivery was titled "Purple Version," the Balanced diagnosis was titled "Blue Version," and the Empathetic diagnosis delivery was titled "Green Version." These titles appeared on the title screens with corresponding colored backgrounds.

To ensure that the diagnosis deliveries were perceived as informative, empathetic, and balanced, fifteen graduate clinical speech-language pathology students in the Speech Language Hearing Sciences department at the University of Colorado, Boulder, watched the videos in random order. After watching each video, participants used a computer-based questionnaire to rate the videos via Likert scale questions indicating the informativeness and empathy of the clinician who presented the diagnosis (see Appendix F). The videos were watched in random order in order to minimize order effects on ratings. A seven-point Likert scale was used based on research indicating that a seven-point Likert scale may be appropriate for use with students (Weijters, Cabooter, & Schillewaert, 2010). High numbers indicated highly empathetic or informative and low numbers indicated not at all empathetic or informative. Results from the validation indicated that students' ratings corresponded with research design in that the Informative diagnosis delivery was rated as most informative and least empathetic, and the Empathetic diagnosis delivery was rated as most empathetic and least informative (see Table 4).

Table 4

Diagnosis delivery	Mean empathetic rating (scale of 1-7)	Mean informative rating (scale of 1-7)
Empathetic	6.07	5.53
Balanced	4.53	5.86
Informative	2.93	6.53

Table 4 Diagnosis Delivery Validation: Empathy and Informativeness Ratings by Graduate Students

Measures

Measures included the Big Five Inventory (BFI; Benet-Martinez & John, 1998; John et al., 1991; John et al., 2008), which measured personality characteristics; a demographic

questionnaire; a question regarding participants' perception of personal "concerning results;" and questions regarding participants' ratings of the empathy and informativeness of the diagnosis deliveries and the preferred diagnosis delivery.

The BFI was provided in its original format either on paper or via Google Form. The Google Form version created for this study had the same labeled Likert scale (1=disagree strongly, 2=disagree a little, 3=neither agree nor disagree, 4=agree a little, 5=agree strongly), same 44 short phrase items, and same scoring procedure as the original BFI (see Appendices G and H). The BFI encapsulates the variety of human personality traits into five broad descriptors: openness, conscientiousness, extraversion, agreeableness, and neuroticism (John et al., 2008). Previous research demonstrated that personality traits play a role in emotional experience and may impact the intensity of affective forecasts (Pearman, Andreoletti, & Isaacowitz, 2010). Therefore, the BFI was chosen as a means of examining the relationship between personality traits and preference, as well as the potential influence of personality traits on the affective forecasts made by participants. The BFI has been widely used, shows test-retest reliability, and validity (Arterberry, Marens, Cadigan, & Rohrer, 2014; John et al., 2008; John & Srivastava, 1999; Rammstedt & John, 2007).

The demographic questionnaire was created in Google Forms and included short answer questions and multiple choice questions (see Appendix I). Open-ended questions included participants' age, years of education, occupation, number of siblings, and number of children. Multiple choice questions included marital status, gender, employment (yes/no), race, ethnicity, and parent age group. Questions about race, ethnicity, and marital status were modeled on formats used by the United States Census Bureau for these topics (US Census Bureau, 2017). Participants could choose only one answer on each multiple choice question except for the race

question on which they could choose multiple races. Gender Identity options were modified to include an "other" choice with the option to elaborate via short answer. Parent age group, including "deceased" as a multiple choice option, was requested to examine the relationship between parent age and preference (i.e., if participants with deceased parents demonstrate different preferences for diagnosis delivery than participants with younger parents). All demographic questions were chosen to target participant factors that might influence preference.

Questions following the demographic questionnaire targeted participants' ratings of the empathy and informativeness of each diagnosis delivery, overall diagnosis delivery preference, and ratings of personally concerning results (see Appendices J and K). Five-point Likert scale questions were used to rate participants' perceptions of the empathy and informativeness of each diagnosis delivery. A five-point scale was used based on research demonstrating the appropriateness of a five-point Likert scale for the general public (Weijters, Cabooter, & Schillewaert, 2010). The Likert scale questions were labeled with one representing "Not at all" and five representing "Extremely" in response to the perceived empathy or informativeness of the diagnosis delivery. The preference question was multiple choice with the videos referred to by their color names (i.e., Purple, Blue, Green); participants could mark only one preferred diagnosis delivery. The final question asked participants to rate personally concerning results (i.e., real-life experiences they were asked to reflect on while watching the diagnosis deliveries) on a seven-point Likert scale (see Appendix K). A seven-point scale was chosen rather than a five-point scale to reflect the expertise of participants regarding their own life experiences, which might be more nuanced and require further gradation.

Procedures

Interested parties who met inclusion and exclusion criteria were enrolled in the study and reimbursed $10 for participation. Participation was conducted in private meeting rooms at the University of Colorado, Boulder, or private meeting rooms in the nearby community with only the examiner and the participant present. Participants completed measures and consent forms on paper or electronically on the researcher's computer, according to their preference. After completing the consent form, participants completed the Big Five Inventory (BFI; Benet-Martinez & John, 1998; John et al., 1991; John et al., 2008) and the demographic questionnaire (see Appendices G, H, and I). Prior to watching the diagnosis deliveries, participants were assigned one of six possible orders in which to watch the videos. A random number generator using the numbers one to six, inclusive, was used to choose this order. In order to control for order effects, each of the six possible orders was watched by approximately the same number of participants.

The procedure for watching the diagnosis deliveries was described to the participants as follows: "You will watch three videos depicting a diagnosis delivery, each about five minutes long, and then you will be asked to rate each video and to indicate the diagnosis delivery you preferred most after watching all three."

Before watching the diagnosis deliveries, participants were asked to think about a time when they received "concerning results" from a health professional about themselves or a loved one. Participants were prompted to think of "concerning results" as medical results that are either inconclusive, confirming a new medical diagnosis, or revealing a health change that requires attention. Participants were not asked to describe their experience receiving concerning results to the researcher. Instead, they were instructed to recall their experiences as they watched the

videos because research suggested that people were more accurate at identifying their preferences for hypothetical situations if they first recalled similar, relevant experiences (Buehler & McFarland, 2001; see Appendix L). One participant had difficulty thinking of a specific past experience and was given a list of examples, including an inconclusive sexually transmitted infection panel, a diagnosis of Alzheimer's, and a diagnosis of high blood pressure. After the examples, the participant stated he recalled a specific, relevant experience receiving concerning results about a loved one.

Participants were provided with an explanation about the context for the hypothetical situation portrayed in the diagnosis delivery videos. The researcher instructed them to "Imagine that your father has suffered a stroke, and you are meeting with the speech-language pathologist to hear your father's diagnosis. If imagining your father in this hypothetical situation does not feel relevant or appropriate for you, please imagine receiving this diagnosis about a different loved one." Participants were asked to imagine themselves as the patient's son receiving the news. They were told that they would be asked to rate the empathy and informativeness of the speech-language pathologist in each diagnosis delivery immediately after watching it. Informative was defined to participants as conveying useful or interesting information ("Informative: Definition," n.d.). Empathetic was defined as showing the ability to understand and share the feelings of another("Empathetic: Definition," n.d.). Participants were also told that they would be asked to indicate their preferred diagnosis delivery, based on imagining themselves as the patient's son, after watching all three. They were told that they would not be required to remember any specific details from the videos. Lastly, they were reminded to keep their past experience receiving concerning results in mind as they watched the videos.

Participants then watched the three diagnosis deliveries in their assigned order on the researcher's computer. Headphones were offered; however, all of the participants chose to listen to the videos through the researcher's computer speakers. After viewing each diagnosis delivery, participants answered Likert scale questions about the informativeness and empathy portrayed by the speech-language pathologist. Participants were not permitted to go back and change previous ratings because the researcher wanted empathy and informativeness ratings to reflect first impressions of the diagnosis delivery, independent of comparison to the other diagnosis deliveries. It was hypothesized that the nearly equal group sizes of each possible video order would offset some of the influence of the participants not having a basis for comparison while watching the first diagnosis delivery. Notably, only eight (19.5%) participants requested to go back and change earlier ratings. After watching all three videos, they indicated which diagnosis delivery they preferred. Participants were not allowed to take notes but were reminded of the order in which they watched the diagnosis deliveries (e.g., "You watched the blue version, then the green version, then the purple version.") upon request when answering the overall preference question. Finally, they were asked to rate how concerning their personal concerning results were on a seven-point Likert scale, with one indicating "Not at all" and seven indicating "Extremely" (see Appendices J and K). After completion of procedures, participants were invited to share optional comments or feedback about their experience verbally or in writing. Verbal responses were transcribed by the researcher.

Data Analysis

To determine if overall preferences for diagnosis delivery manner were significantly different from what might be expected due to chance alone, a chi-square test of goodness-of-fit was performed. Pearson chi-square tests of independence were used to examine the relationships

between participant characteristics (demographic factors and personality traits) and diagnosis delivery preference. Chi-square tests of independence were also used to evaluate the relationships between diagnosis delivery ratings and preference, as well as between study design characteristics (i.e., asking the participants to imagine concerning results and varying the order of videos watched) and preference. We used general linear model analyses of variance to determine if there were significant differences in demographic factors or personality traits across preference groups (i.e., preference for the Empathetic delivery, Balanced delivery, and the Informative delivery).

Participants' reported occupations were grouped into categories (i.e. Sales, Business and Financial, Legal, Healthcare, Technology, Research, Education, and Service Industry) based in part on categories used by the United States Bureau of Labor Statistics (2018 Standard Occupational Classification System, 2018). These categories were analyzed in relation to diagnosis delivery preference. Other groupings were based on whether participants had one or more deceased parents, whether they had children, and age range (e.g., ages 25-34, 35-44, etc.). Finally, BFI responses corresponding to each of the Big Five traits were scored, totaled, and averaged to produce overall Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness scores for each participant, in accordance with BFI instructions (Benet-Martinez & John, 1998; John et al., 1991; John et al., 2008). Their overall scores in the Big Five traits were grouped according to the highest, middle, and lowest scores (33% each) among participants in each trait. These categories were then used to examine the relationship between being higher, lower, or average in the participant pool for these traits and preference.

All analyses used either Tukey's Honest Significant Difference (Tukey HSD) tests or Bonferroni corrections to control for family-wise errors (type I) using an alpha of 0.05.

IV. Results

Diagnosis Delivery Preferences and Ratings

Twenty-seven (65.9%) participants preferred the Empathetic diagnosis delivery, twelve (29.3%) preferred the Balanced diagnosis delivery, and two (4.9%) preferred the Informative diagnosis delivery (see Figure 1). A chi-square test of goodness-of-fit was used to examine whether preference was significantly different from what could be expected due to chance alone revealed that preference was significantly non-random ($\chi^2\ (2, N = 41) = 23.17, p < .001$) (see Table 5). Thirty-nine (95%) participants preferred a diagnosis delivery that incorporated either equal parts supportive counseling and informative counseling or more supportive counseling.

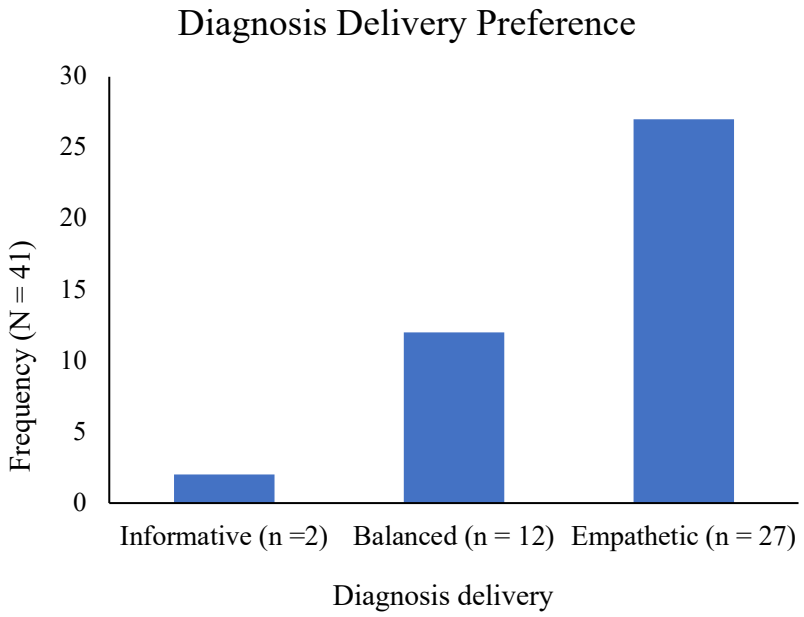


Figure 1. Frequencies for Each Preference. "Frequency" signifies the number of participants who preferred each diagnosis delivery.

Table 5

Preference	Observed *n*	Expected *n*	Residual
Informative	2	13.7	-11.7
Balanced	12	13.7	-1.7
Empathetic	27	13.7	13.3
Total (*N*)	41		

Table 5 Diagnosis Delivery Preference. Preference was significantly non-random ($\chi^2\ (2, N\ =\ 41) = 23.17, p < 0.001$) with the majority of subjects selecting the Empathetic diagnosis delivery over the Balanced or Informative deliveries.

Analysis of average participant ratings revealed that the Informative diagnosis delivery was rated as least empathetic and most informative, the Empathetic diagnosis delivery as most empathetic, and the Empathetic and Balanced diagnosis deliveries as equally informative (see Appendix M). Average ratings for the informativeness of the three diagnosis deliveries ranged from 4.34 to 4.59, and average ratings for the empathy of the diagnosis deliveries ranged from 2.53 to 4.34 (averages from five-point Likert scale ratings). As a group, participants who preferred the Informative diagnosis delivery rated it higher in empathy and informativeness than participants who preferred the other two diagnosis deliveries. Similarly, as a group, participants who preferred the Empathetic diagnosis delivery rated it higher in empathy and informativeness than the other two groups. The group of participants who preferred the Balanced diagnosis delivery rated the Balanced and Empathetic diagnosis deliveries as equally empathetic and the Informative and Balanced diagnosis deliveries as equally informative.

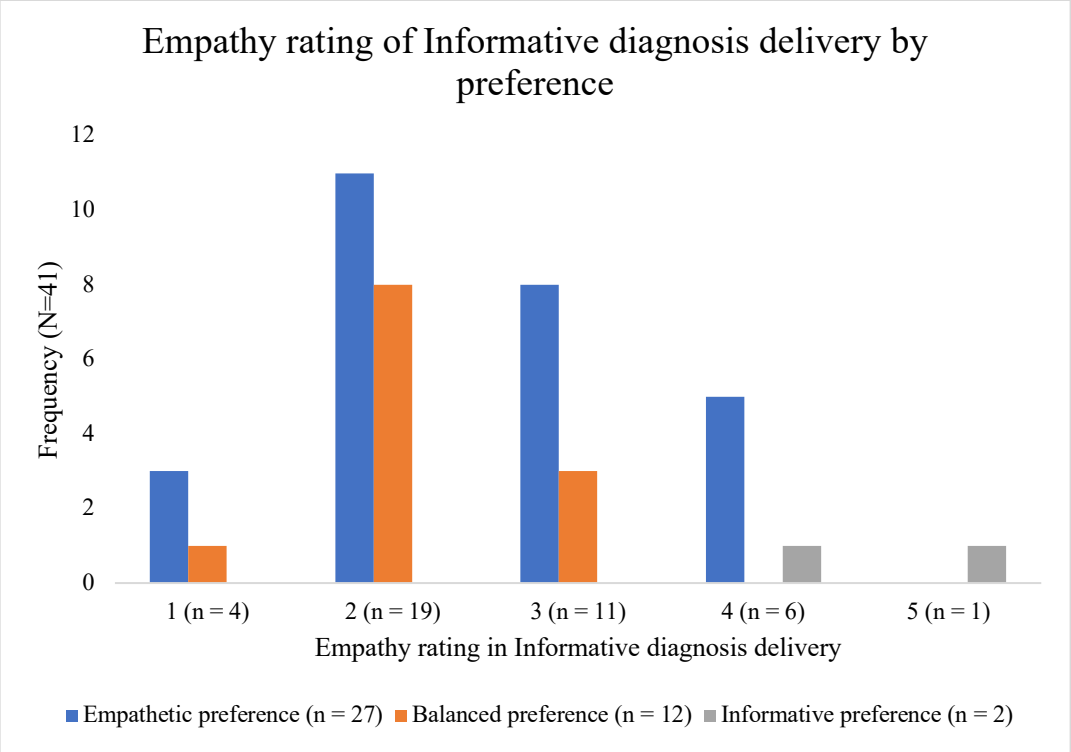
Chi-square tests of independence were used to examine the relationships between empathy/informativeness ratings and preference (see Table 6). No significant relationships were found between ratings of informativeness and preference. A significant relationship was found between empathy ratings for the Informative diagnosis delivery and preference ($\chi^2\ (8, N =$

$41) = 26.32, p < .001$). Post hoc Bonferroni corrections indicated that participants who rated the Informative diagnosis delivery as "extremely" (five on five-point Likert scale) empathetic preferred the Informative diagnosis delivery significantly more than expected (see Figure 2). However, only one participant rated the Informative diagnosis delivery as "extremely" empathetic (five on five-point Likert scale), and only two participants preferred the Informative diagnosis delivery; therefore, these results must be considered in the context of a very limited sample size. These tests also illustrated a non-significant trend between rating the Empathetic diagnosis delivery as "extremely" (five on five-point Likert scale) empathetic and preferring the Empathetic diagnosis delivery ($\chi^2\ (6, N = 41) = 10.63.32, p = .101$).

Table 6

Rating (diagnosis delivery)	χ^2	df	Asymptotic significance (p)
Empathy (Informative)	26.32	8	$p < .001$***
Empathy (Empathetic)	10.63	6	.101
Empathy (Balanced)	9.4686	8	.304
Informativeness (Informative)	2.5552	4	.635
Informativeness (Empathetic)	9.0878	6	.169
Informativeness (Balanced)	5.5995	6	.470

Table 6 Relationships Between Empathy and Informativeness Ratings and Preference. A significant association was found between empathy ratings of the Informative diagnosis delivery and preference.



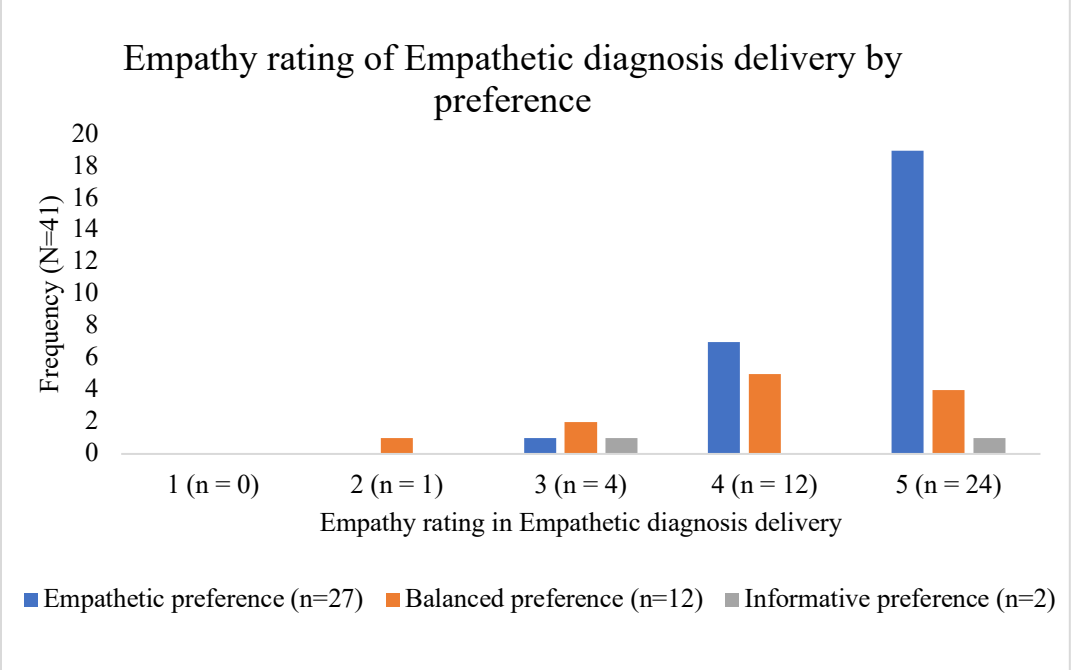


Figure 2. The Relationship Between Empathy Rating in the Informative Diagnosis Delivery and Overall Preference (top) and the Relationship Between Empathy Rating in the Empathetic Diagnosis Delivery and Overall Preference (bottom). A significant relationship was found between higher ratings of empathy in the Informative diagnosis delivery and preference for the Informative diagnosis delivery, and a non-significant trend was found between high ratings of empathy in Empathetic diagnosis delivery and preference for the Empathetic diagnosis delivery.

Demographic Factors

Chi-square tests of independence were conducted to examine the relationships between categorical demographic factors and preference (see Table 7). A significant relationship was found between having children and preference ($\chi^2\ (2, N = 41) = 7.487, p = .024$). Specifically, individuals who did not have children preferred the Balanced diagnosis delivery significantly more frequently than expected, and individuals who did have children preferred the Balanced diagnosis delivery significantly less frequently than expected(see Figure 3).

Table 7

Demographic factor	χ^2	df	Asymptotic significance (p)
Age group	14.426	10	.154
Gender identity	1.678	4	.795
Marital status	7.324	8	.502
Employment	1.134	2	.567
Occupation	8.222	16	.942
Race	2.318	8	.970
Ethnicity	.176	2	.916
Having Children	7.487	2	.024*
Deceased parent(s)	5.756	2	.056
Parent 1 age group	13.798	8	.087
Parent 2 age group	9.648	8	.291

Employment, Having Children, Deceased parent(s) were indicated by yes or no responses on the questionnaire. Ethnicity was indicated as Hispanic/Latino or Non-Hispanic/Non-Latino, *= $p < .05$

Table 7 Relationships of Demographic Factors with Preference. A significant relationship was found between number of children and preference.

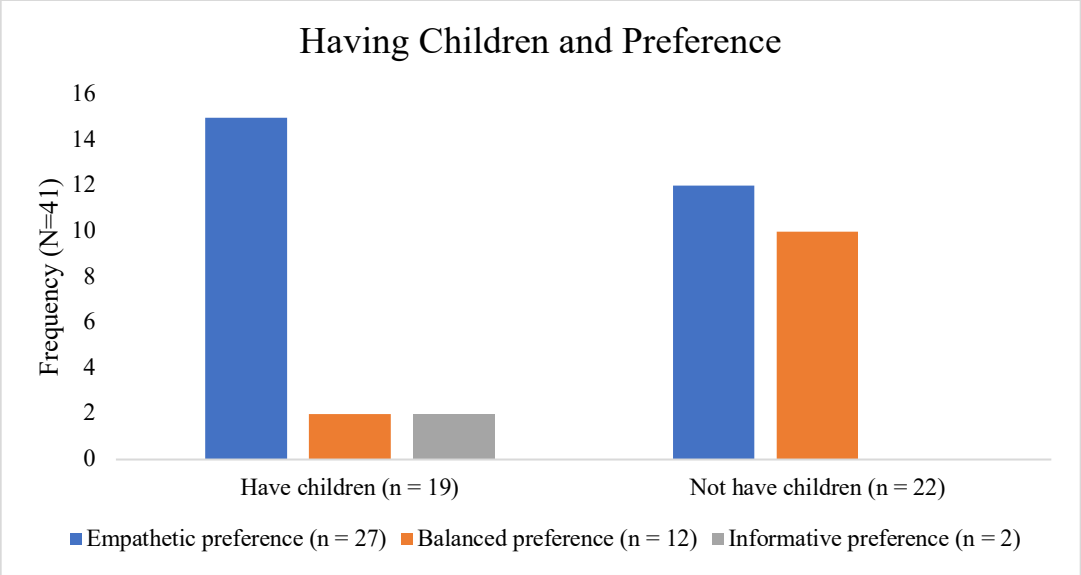


Figure 3. Having Children and Preference. The relationship between having children and preference indicated that fewer participants who had children preferred the Balanced diagnosis delivery than expected, and more participants who did not have children preferred the Balanced diagnosis delivery than expected.

General linear model analyses of variance were used to examine differences in continuous demographic variables (i.e., age, years of education, number of siblings, and number of children) among participants according to their preferences (see Table 8). These analyses and post hoc Tukey HSD tests revealed that participants who preferred the Informative diagnosis delivery were on average significantly older than those who preferred the Balanced diagnosis delivery ($F(41,2) = 4.687$, $p = 0.015$). Individuals who preferred the Informative diagnosis delivery had significantly more children on average than participants who preferred the Balanced diagnosis delivery ($F(41,2) = 4.623$, $p = 0.016$); however, the significance of these findings must be considered in the context of the small sample size ($n = 2$) of Informative preference individuals. No significant differences were found in years of education ($F(41,2) = 1.263$, $p = 0.294$) or number of siblings according to participant preferences ($F(41,2) = 0.738$, $p = 0.485$).

Table 8

	Preference M (SD)			Effect of Preference	
	Empathetic	Balanced	Informative	F value	Sig. (*p*)
Age	46.74 (14.79)	37.50 (10.85)	67.00 (2.83)	4.687	.015*
Years of education	17.74 (3.70)	19.33 (3.70)	15.50 (4.95)	1.263	.294
Number of siblings	2.22 (1.58)	1.67 (0.98)	2.50 (0.71)	0.738	.485
Number of children	1.48 (1.97)	0.33 (0.89)	4.50 (4.95)	4.623	.016*

Age, years of education, number of siblings, and number of children were all continuous variables, *= p< .05

Table 8 Differences between Demographic Variables According to Preference

Personality Traits

General linear model analyses of variance were conducted to determine if there were significant differences in Big Five personality scores (averages of the corresponding 44 five-point Likert scale items) among individuals according to their preferences (see Table 9). The analyses revealed that there were no significant differences in Big Five scores according to individual preferences. However, the differences in average Agreeableness scores between individuals who preferred the Balanced (4.06) and Empathetic diagnosis deliveries (3.95) and individuals who preferred the Informative diagnosis delivery (2.94) revealed a non-significant trend between Agreeableness and preference ($F(41,2) = 2.815$, $p = .072$). Specifically, individuals with higher Agreeableness overall preferred diagnosis deliveries with more supportive counseling techniques (Balanced or Empathetic), and individuals with lower Agreeableness preferred the Informative diagnosis delivery. As with the previous analyses, significance related to those who preferred the Informative diagnosis delivery must be considered in the context of the small sample size ($n = 2$).

Table 9

	Preference M (SD)			Effect of Preference	
	Empathetic	Balanced	Informative	F value	Sig. (p)
Openness	3.78 (0.67)	3.89 (0.43)	4.40 (0.14)	1.042	.362
Conscientiousness	3.58 (0.64)	3.97 (0.82)	3.94 (0.08)	1.478	.241
Extraversion	3.09 (0.89)	3.14 (0.93)	3.31 (0.27)	0.064	.938
Agreeableness	3.59 (0.95)	4.06 (0.70)	2.94 (0.08)	2.815	.072
Neuroticism	2.88 (0.90)	2.90 (1.07)	3.50 (1.59)	0.382	.685

Table 9 Big Five Personality Scores across Preference. Big Five scores are the averages of scored and reverse scored items (five-point Likert scale responses) relating to the overall trait.

Chi-square tests of independence revealed significant relationships between personality trait items (self-ratings of BFI items on a five-point Likert scale) and preference (see Table 10). Specifically, the Informative preference individuals tended to rate themselves higher in quarreling, rudeness, and assertiveness than the majority of the other participants rated themselves on these items. They also rated themselves lower in being forgiving than the majority of other participants rated themselves. The significance of these relationships should be considered in the context of the sample size (n = 2) of individuals who preferred the Informative diagnosis delivery.

Table 10

Personality Trait item	χ^2	df	Asymptotic significance (p)
Starts quarrels with others	18.151	8	.020*
Is sometimes rude to others	25.711	8	.001**
Has an assertive personality	16.343	8	.038*
Has a forgiving nature	14.213	6	.027*

Table 10 Significant Relationships Between Personality Trait Items and Preference, * = $p < .05$, ** = $p < .01$. Personality trait items were self-rated by participants on a five-point Likert scale.

Study Design Effects

Tests were also conducted to evaluate the influence of study design factors, such as the order of videos participants watched and personal ratings of concerning results, on preference. The relationship between the order of videos watched and preference was examined via a chi-square test of independence, which revealed no significant relationships between order and preference. Chi-square tests of independence were also used to examine the relationship between participants' self-ratings of how concerning their personal concerning results were (seven-point Likert scale with one signifying “not at all” and seven signifying “extremely”) and preference. No significant relationships were found between concerning results ratings and preference.

Qualitative Results

Eighteen (43.9%) of participants chose to give feedback following participation (see Table 11). One (50.0%) of the Informative preference individuals offered feedback, nine (33.3%) Empathetic preference individuals offered feedback, and eight (66.7%) Balanced preference individuals offered feedback.

Table 11

Preference	Participant Feedback
Informative	“I felt like the SLP was a bit too robotic in her speaking style. All three seemed exactly the same. The [Empathetic diagnosis delivery] was over the top empathy.”
Empathetic	“The [Empathetic diagnosis delivery’s] bedside [manner] was better. [The Balanced diagnosis delivery] was informative and [the Empathetic diagnosis delivery was] also.”
	“I gathered more about what's going on from the ones with more empathy. I had the least amount of recall from the Informative one.”
	“I felt like the ‘informative’ category was difficult- the [Empathetic diagnosis delivery] did not have as much information but it felt completely adequate. The info[rmation] about 2 million people hav[ing] the condition was more info- but not particularly helpful.”
	“It was hard that the son’s responses were the same in all videos- there was less reaction to what the SLP was saying.”
	“The last two [Balanced and Empathetic] were similar, but the last one [Empathetic] had a lot more empathetic phrases. They all demonstrated empathy.”
	“I want [the doctor] to show me that [he/she] understand[s] what I'm dealing with. Doctor terms don't do much for me.”
	“In the [interaction in the Empathetic] video, I would be less in the way, there [would be] less burden on me. I would feel more comfortable asking questions to a person who made me feel like we're in it together.”
	“I feel like [the Balanced and Empathetic diagnosis deliveries] were almost exactly the same."
	"Anytime I'm receiving information like that, I like someone I can feel more of a connection with because you're distressed. There's an initial panic- kind of freaked out-and then [later] you process details- it helps to have someone with empathy. I don't need all the details; just tell me what I need to do."
Balanced	“I found the information calming; I like facts and information. The [Balanced video] is empathetic but has a good amount of information and personal interaction.”
	“It was hard to tell the difference between [the Balanced] and [Empathetic] videos.”
	“Are the [Informative] and [Balanced] videos the same? I don't like fake empathy, and she was showing too much of it in the [Empathetic diagnosis delivery].”
	“In the first one [Empathetic diagnosis delivery], she was being presumptuous- for some people that's fine, but you don't know who it's gonna be fine for, and now you're treating me like a little kid. I would be offended [by the Empathetic diagnosis delivery]: how do you know how I feel? She kept saying ‘I know.’ If empathy is trying to understand how another person feels, you cannot make assumptions about how they feel. [The Balanced diagnosis delivery] didn't offend me. It would have been unfair if I hadn't been informed that it's a big deal. I need [the therapist] to help me get started."
	“The [Empathetic] video had extra fluff.”
	“I felt like the [Balanced] video had the best balance of empathy and information.”
	“I like to know you're a human, but I also like the facts.”
	“In an emotional state, too much empathy can fuel emotion- I'd start crying. The [Balanced diagnosis delivery] felt most relatable.”

Table 11 Qualitative Feedback from Participants

V. Discussion

Research Question One: Preferred Manner of Diagnosis Delivery

The results of the current study support our hypothesis that individuals prefer receiving a (hypothetical) diagnosis of aphasia about a family member in a more empathetic manner. A significant majority of participants preferred the Empathetic diagnosis delivery, which incorporated more supportive counseling techniques, such as building rapport, fostering optimism and resilience, sharing power with the family member, attuning to latent and overt meanings, demonstrating empathy, and acknowledging feelings. Additionally, it is worthwhile to note that thirty-nine (95%) participants preferred either the Balanced or the Empathetic diagnosis delivery, indicating that the overwhelming majority of participants predicted they would prefer a diagnosis delivery about a loved one that included the use of empathetic counseling techniques (either in equal ratio to or greater ratio to informational counseling). Participants' qualitative statements further elucidate their preferences and highlight their perceptions of the importance of rapport, emotional safety, empowerment, and empathy in healthcare interactions (see Table 11, above). These results provide empirical support for supportive counseling methods and are consistent with counseling research literature recommendations and findings in speech-language pathology and in other healthcare fields (e.g., Hojat et al., 2011; Holland, 2007a, 2007b; Kaderavek et al., 2004; Simmons-Mackie & Damico, 2011a; Walsh & Duchan, 2011). Based on these findings and the existing literature, clinicians should consider incorporating frequent use of empathetic counseling techniques into their counseling practices with patients and family members, especially in diagnosis delivery.

Perceptions of informativeness and empathy and preference. An unexpected finding regarding preference was how it relates to participants' perceptions of informativeness and

empathy. Perceptions of the informativeness of diagnosis delivery do not appear to influence preference; however, perceptions of the empathy of diagnosis delivery appear to be related to preference.

Perceptions of informativeness and preference. The results of this study indicate that preference is independent of how informative a diagnosis delivery is perceived to be. Additionally, the results suggest that the amount of information presented in a diagnosis delivery is not predictive of perceptions of informativeness. Indeed, the average informativeness rating was the same for the Balanced and Empathetic diagnosis deliveries (4.34 average of five-point Likert scale responses), and the average informativeness rating for the Informative diagnosis delivery was not significantly higher (4.59), despite the Informative diagnosis delivery containing the most facts about the communication disorder.

These results may be partially clarified by the qualitative feedback of participants (see Table 11, above). One participant stated, "The [Empathetic diagnosis delivery] did not have as much information but it felt completely adequate. The info[rmation] about 2 million people hav[ing] the condition [in the Informative diagnosis delivery] was…not particularly helpful." Preference was justified by another participant who stated that, "Doctor terms don't do much for me." Providing basic, or essential, information about a communication disorder when delivering a diagnosis may be perceived as adequately informative and may even be preferable to receiving more information, especially if additional information is perceived as jargonistic or superfluous. This finding supplements research literature recommending that clinicians avoid over-focusing on information or using jargon in counseling moments (Holland, 2007a, 2007b; Simmons-Mackie & Damico, 2011a).

Perceptions of informativeness may also depend on the emotional state of the listener more than the number of facts presented. One participant underlined the difficulty of absorbing detailed information in negative emotional events, such as receiving a diagnosis: “There's an initial panic…and then [later] you process details- it helps to have someone with empathy. I don't need all the details; just tell me what I need to do." Another participant indicated that they felt better informed, despite hearing less facts, when the clinician demonstrated empathy: “I gathered more about what's going on from the ones with more empathy. I had the least amount of recall from the Informative one.” The results suggest that in perceptions of informativeness, quality may supersede quantity in a diagnosis delivery. If individuals receiving a diagnosis feel overwhelmed, emotional, or panicked, they may feel more informed after receiving less-detailed information presented in an empathetic manner. These findings support Holland’s (2007b) assertion that, in the initial stages after diagnosis, patients and family members may have difficulty absorbing information, and counseling should, therefore, incorporate both supportive and informative techniques.

The results suggest that clinicians should not rely on informational counseling alone when delivering a diagnosis because it does not result in clients’ feeling better informed, nor is it preferable to the majority of people. Over-reliance on facts to the exclusion of discussing difficult emotions and demonstrating empathy in counseling moments may ultimately be detrimental to therapeutic interactions and patient and family empowerment (Beck & Verticchio, 2014; Holland, 2007a, 2007b; Riley, 2002).

Perceptions of empathy and preference. The results suggest that perceptions of the empathy of a diagnosis delivery have an influence on preference. For example, thirty-five (85.3%) participants preferred one of the diagnosis deliveries they had rated as most empathetic.

Additionally, there was a significant relationship between rating the Informative diagnosis delivery as “extremely” empathetic (five on five-point Likert scale) and preferring the Informative diagnosis delivery. However, it is difficult to generalize this relationship due to the very small sample size (n = 1) of participants who rated the Informative diagnosis delivery as “extremely” empathetic. Nonetheless, individuals who preferred the Informative diagnosis delivery rated it higher in empathy as a group than other individuals did. Further exemplifying the influence of empathy perceptions on preference, the results also illustrated a non-significant trend between perceiving the Empathetic diagnosis delivery as highly empathetic and preferring it. Although further research is needed to determine the significance of these trends, the results of this study indicate that clients’ perceptions of the empathy portrayed by clinicians delivering diagnoses may influence how clients feel about the therapeutic interaction.

While the majority of participants (87.8%) perceived the Empathetic diagnosis delivery as empathetic (higher than three on five-point Likert scale), it is worthwhile to examine the reasons some individuals perceived it as unempathetic. These differences in perception are further clarified by participants’ qualitative feedback (see Table 11, above). One participant’s remarks demonstrate that inaccurate and presumptive attunements may lead to perceptions of reduced empathy: “I would be offended [by the Empathetic video]: how do you know how I feel? She kept saying ‘I know.’ If empathy is trying to understand how another person feels, you cannot make assumptions about how they feel." This result appears to run contrary to the results summarized by Elliott et al. (2018) suggesting that patient perceptions of empathy could be maintained despite inaccurate attunements.

A key difference between the results of this study and those of Elliott et al. (2018) may be that in the current study, it was not possible for the clinician to demonstrate knowledge of or

rapport with the participants watching the diagnosis deliveries. Elliott et al. (2018) examined real-world therapeutic interactions in which rapport and repeated clinical exchanges were already established. It is possible, therefore, that inaccurate attunements may not adversely affect perceptions of empathy if the clinician has already established rapport with the client. More research is needed to support this claim, but clinicians should bear in mind that making inaccurate attunements without establishing rapport and knowledge of clients could be perceived as unempathetic. In delivering a diagnosis, clinicians are unlikely to have already established rapport; therefore, they should consider phrasing attunements in a way that acknowledges that they do not "know" how clients are feeling.

As demonstrated by another participant, another reason empathetic counseling techniques could be perceived as unempathetic would be if they are not perceived as genuine: "I don't like fake empathy, and she was showing too much of it in the [Empathetic] video." This finding is supported by Stepien and Baernstein's (2006) review of literature concerning empathy training, which indicated that empathy must be perceived as genuine, and not just labeling feelings, for it to be effective.

Further research is needed to determine the significance of the relationship between perceptions of empathy and diagnosis delivery preference. Clinicians should consider checking in with patients (verbally or intuitively) about whether their counseling approaches are being perceived as empathetic and modifying their approaches if they discover that their empathetic actions are not being received as genuine.

Research Question Two: Demographic Factors and Preference

Gender. In this study, preference was distributed approximately evenly among gender identities, and no relationships were found between gender identity and preference, a finding that appears contrary to evidence that women tend to be more empathetic than men (e.g., Chen, Feng, Lv, & Lu, 2018). However, Chen et al.'s (2018) study, as well as several other studies examining empathy and gender, use self-ratings to measure empathy, while this study asks participants to discern the use of empathy in others, which may partially explain the lack of relationship between gender and preference in this study. This current results suggest that clinicians should not modify their counseling approaches based on the gender identity of clients.

Occupation. The literature regarding compassion satisfaction and compassion fatigue provides evidence of relationships between working in caring professions and empathy (Figley, 2002; Hansen et al., 2008; Wilkinson et al., 2017). Therefore, the results in this study might have been expected to demonstrate relationships between empathy and working in healthcare or another caring field; however, no relationships were found between occupation categories and preference. More research is needed to support these results; nevertheless, the results of this study suggest that clinicians should not modify their counseling approaches based on clients' types of occupation.

Age. The finding that the average age of the individuals who preferred the Informative diagnosis delivery was significantly greater than the average age of those who preferred the Balanced diagnosis delivery may demonstrate a preference for less empathy in healthcare interactions with increasing age. This finding is in keeping with evidence for a decline in empathy with age (Chen et al., 2018; Heller & Beadle, 2018). However, if a decline in empathy with age were the sole reason for these differences, we would expect the Empathetic preference

individuals to be the youngest and the Balanced preference individuals to be in the middle. The results indicate that other factors, possibly in addition to age-related empathy decline, may be influencing the age difference between Informative and Balanced preference individuals. For example, Shattell et al.'s (2007) participant group preferred health care professionals who were empathetic but who could also provide blunt feedback. Perhaps there are generational influences among the younger Balanced preference individuals that cause them to prioritize counseling that incorporate both blunt and empathetic feedback more than other generations. It could also be due to different perceptions of what ideal healthcare looks like in different age groups. Further research is needed to clarify the role of age in preference and to generalize these results due to the small sample size (n = 2) of the individuals who preferred the Informative diagnosis delivery. Clinicians should be aware of the relationship presented here and use it to approach modifications of their counseling approach when appropriate.

Children. The results illuminate a significant relationship between participants' having children and the number of children they have and preference, but the reasons for this relationship are ambiguous. Informative preference individuals had significantly more children on average than Balanced preference individuals. The findings also revealed a non-random relationship between not having children and preferring the Balanced diagnosis delivery. These results could be partially attributed to the greater average age of the Informative preference individuals described above, as older people may be more likely than younger people to have had children. However, the results could also be indicative of a relationship between not having children and preferring a more informatively and empathetically balanced health care interaction. An initial search revealed no peer-reviewed articles examining the relationship between having

children and changes in empathy. More research is needed to examine the relationships between age, having children, and preferring a more balanced diagnosis delivery.

Research Question Three: Personality Traits and Preference

Agreeableness and preference. Although no significant relationships were found between overall personality traits (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) and preference, it is worthwhile to note the non-significant trend between the BFI trait Agreeableness and preference. Individuals who preferred the Balanced or Empathetic diagnosis deliveries had higher Agreeableness scores than individuals who preferred the Informative diagnosis delivery. These results imply that individuals who rate themselves as more Agreeable may prefer diagnosis deliveries that incorporate frequent use of empathetic counseling methods.

Possible reasons for this trend can be found in the literature regarding Agreeableness. Melchers et al. (2016) demonstrates that Agreeableness scores are predictive of empathy. If highly Agreeable individuals are also more empathetic, it follows that they might prefer a more empathetic diagnosis delivery. Additionally, research indicates that highly Agreeable people are motivated by prosocial behaviors and maintaining relationships (John et al., 2008; Pearman et al., 2010; Tobin, Graziano, Vanman, & Tassinary, 2010). Due to these traits, Tobin et al. (2000) assert that "[i]t is also plausible that… individuals higher in Agreeableness may be more concerned than their peers with the emotional experience of their partners during interaction" (p. 657). Highly Agreeable individuals may also be more aware of the social appropriateness of clinical interactions and anxious about the clinician's well-being during diagnosis delivery. They may, therefore, prefer the Balanced and Empathetic diagnosis deliveries in which the clinician

demonstrates more socially appropriate nonverbal cues that may signal the well-being of both parties in the therapeutic interaction.

Further clarifying the relationship between high Agreeableness and preference for more empathetic diagnosis deliveries, Pearman et al. (2010) and Tobin et al. (2000) found that highly Agreeable individuals tend to be more attuned to their own emotional states and more aware of how emotions may affect them. They also tend to be more reactive to negative stimuli and to predict they will feel more intense negative emotions in response to hypothetical future negative events than individuals with lower Agreeableness (Pearman et al., 2010; Tobin et al., 2000). Thus, the highly Agreeable participants in this study may have predicted they would feel worse about the diagnosis scenario than their less Agreeable counterparts did and may have chosen more empathetic diagnosis deliveries in which the clinician would provide support for these predicted emotions. While the increased intensity of affective forecasts, or predictions about how one will feel in the future, associated with high Agreeableness could lead to inaccuracy, Tobin et al. (2000) found that highly Agreeable individuals tend to experience real-life events with more intense emotional reactions than others, and, therefore, the majority of their affective forecasts are fairly accurate.

Based on the research, individuals with lower Agreeableness may be less concerned with social appropriateness and the clinician's well-being, less aware of how emotions impact them, and more likely to predict a less intense emotional response to hypothetical adverse events. These individuals may, therefore, prefer a more informative manner in diagnosis delivery. It is difficult to generalize these findings because of the small sample size of individuals who preferred the Informative diagnosis delivery, and further research is needed with a larger sample size of people with low Agreeableness scores to expand upon these results. However, the current

results suggest that clinicians should consider incorporating frequent use of supportive counseling techniques when counseling clients who demonstrate high Agreeableness. They may also consider modifying their counseling approach with clients who demonstrate low Agreeableness if these clients demonstrate adverse reactions to or lack of benefit from supportive counseling techniques.

Informative preference individuals and Big Five Inventory trait items. The significant relationships between specific BFI items and preference for the Informative diagnosis delivery are difficult to generalize because of the small sample size (n = 2), but they may be revealing, nonetheless, regarding specific traits that may be associated with this preference. Informative preference individuals rated themselves overall higher in being quarrelsome and rude and lower in being forgiving than individuals who preferred other diagnosis deliveries, all of which contribute to a lower Agreeableness score. They also rated themselves overall as more assertive than participants with other diagnosis delivery preferences, which contributes to a higher Extraversion score. It is possible, therefore, that individuals who see themselves as more rude, quarrelsome, and assertive and less forgiving are more likely to prefer a more informative, less empathetic diagnosis delivery.

The significance described above may be due entirely to the small sample size of the Informative preference individuals; however, personality traits the individuals share could be key factors influencing these individuals' preferences. Evidence for or against such relationships would allow speech-language pathologists greater understanding of the importance of catering counseling approaches to specific patients. As stated earlier, the results of this study indicate that perception of the empathy of diagnosis delivery was related to preference; it is advisable to further examine how the characteristics of Informative preference individuals might influence

their perceptions of empathy. Future research examining a larger sample of individuals with similar traits to these two individuals would shed further light on the significance of their traits in relationship to diagnosis delivery preference.

Implications

The findings of this study present evidence that supports the inclusion of supportive counseling techniques in speech-language pathology diagnosis delivery, such as by demonstrating empathy, building rapport, sharing power, and providing a safe space to discuss emotions. Until future research is undertaken with larger samples to further examine the results and specific demographic and personality traits that may drive preference, speech-language pathologists should err on the side of offering clients and family members a counseling approach that integrates frequent use of supportive counseling techniques and is perceived as empathetic. Although the results indicate that most individuals prefer a more empathetic diagnosis delivery, it is recommended that speech-language pathologists check in (either overtly or intuitively) with their patients and patients' families to ascertain if their manner is being perceived as empathetic. If a clinician's manner is not being perceived as genuinely empathetic, rapport may be negatively impacted; therefore, the clinician may want to consider modifying his/her counseling approach based on the reactions of the patients or family members. Clinicians should consider clients' Agreeableness (e.g., altruism, prosocial behaviors) in addition to clients' stated preferences when deciding whether to increase or decrease supportive counseling techniques. The results from this study also build on existing literature indicating that, while information regarding a communication disorder should be delivered at diagnosis, informational counseling should not be practiced to the exclusion of supportive counseling. The findings presented here should be used

to supplement current speech-language pathology counseling literature and to contribute toward an evidence-based 'gold standard' of care in counseling.

Limitations

Affective forecasting. The results of this study are based on participants' reactions to a hypothetical future situation; therefore, they are required to make "affective forecasts," or predictions about what they would do or how they would feel in the future. The accuracy of affective forecasting is often negatively impacted by intensity bias, or the tendency of individuals to predict they will react more intensely to hypothetical future events than they will actually react when the event occurs (Ayton et al., 2007; Buehler & McFarland, 2001; Mathieu & Gosling, 2012; Pearman et al., 2010). In the current study, it is not possible to follow up with participants to check the accuracy of their affective forecasts because it is unlikely that the majority of participants will have real-life experiences that mirror the hypothetical scenario presented here, and it would be impossible to predict when such a similar event would occur.

In order to increase the likelihood of participants' making accurate affective forecasts, we asked them to focus on past relevant events while making predictions about their reactions to a future hypothetical event. This addition to our study design was based on research by Buehler and McFarland (2001) that demonstrated a causal relationship between temporal focus and level of intensity bias. When participants in Buehler and McFarland's (2001) studies focused on past similar events, the intensity of their affective forecasts was reduced, whereas when they focused on the future hypothetical event exclusively, they predicted more intense reactions. The results of Buehler and McFarland's (2001) research support the inclusion of a past temporal focus when making affective forecasts to mitigate the effects of intensity bias on prediction accuracy. We assert that prompting participants to focus on past relevant experiences ("concerning results")

while making affective forecasts about their diagnosis delivery preferences reduced the effects of intensity bias and resulted in more accurate affective forecasts by participants. Additionally, the accuracy of participants' affective forecasts in this study are supported by research demonstrating that individuals are generally correct at predicting the type of emotions they will feel, even if they overestimate the magnitude of those feelings (Buehler & McFarland, 2001; Mathieu & Gosling, 2012, Tobin et al., 2000). Based on this research, even if the participants in our study overestimated how intensely they would react to the diagnosis scenario, their predictions of the types of emotions they would feel and the manner of diagnosis delivery they would prefer given those emotions were likely accurate. Thus, bias in affective forecasting should not impact the validity of our results.

Active listening. One of the most frequently advocated techniques for counseling in speech-language pathology is active listening. Due to the design of the study, the only components of active listening that could be incorporated in the diagnosis deliveries were attunement (to some extent) and pausing. One participant underlined the absence of active listening in the diagnosis deliveries, stating, "[i]t was hard that the son's responses were the same in all videos- there was less reaction to what the SLP was saying." In controlling for the adult son's responses, affect, and tone, the opportunity to demonstrate active listening and generate realistic responses to what he was saying was lost. However, while a more realistic depiction of active listening should be incorporated into future research regarding counseling techniques in speech-language pathology, controlling for the son's responses allowed us to base participants' preference results from this study entirely on the words, actions, and tone of the actor playing the speech-language pathologist.

Sample size. The small sample size may limit generalizability of the results presented here, and particularly of the generalizability of relationships that were driven by the small sample of Informative preference individuals. Further research is needed to determine whether the significance of certain traits was driven by sample size alone. However, a power analysis completed prior to data collection indicated that the size of the sample ($N = 41$) was valid for the purposes of answering the main research question (type of delivery manner preferred by individuals when receiving a diagnosis of aphasia about a loved one) and questions regarding the relationship of personal factors (demographic and personality) to preference.

Future Directions

Future research should examine the results presented here in the context of a larger sample to clarify the significance and generalizability of results. Relationships should be evaluated between traits of the Informative preference individuals and preference using a larger sample of individuals with similar traits (e.g., low Agreeableness). A larger sample of similar individuals would provide more information about which traits may lead to differences in perceptions of empathy. Some of the significant relationships in this study may have been due to small sample size, but further information about any traits that are related to Informative diagnosis preference would be enlightening in terms of how and when to cater counseling approaches to individual clients.

Further research should also examine the role of incorporating participant reactions to clinicians' diagnosis delivery manners. Similar videos to the ones used for this study could be designed to be more interactive: the participant could indicate how they are perceiving the clinician by choosing among multiple choice options, and their choice could dictate the next clip shown. In this design, the counseling component of active listening could play more of a role.

The design could also shed light on whether clinicians' modifications of their approaches impact participants' preferences and perceptions. We expect that allowing participants to interact more with the clinician in the video and simulating her reactions to participants' perceptions would make the scenarios feel more realistic and thereby generate even more accurate affective forecasts.

Additionally, the results presented here should be examined in real-world situations. Clinicians could incorporate empathetic counseling techniques into their diagnosis deliveries and interventions based on the finding of this study, and voluntary follow-up interviews could be conducted with both clinicians and clients to determine the effectiveness of these practices in terms of patient outcomes and clients' perceptions. Clients who were willing to could also complete the BFI in order to provide information about their personality traits, and demographic factors could be obtained from case histories. With client permission, clinicians could modify their counseling approaches to include less supportive counseling techniques with clients who had similar traits to the Informative preference individuals. Clients' and clinicians' reactions to these modifications could be examined via follow-up interviews. We would expect results from this research to support the use of supportive counseling techniques with most clients, but that a minority of clients would perceive clinicians' use of supportive counseling techniques as unempathetic.

Conclusion

Communication disorders can have a powerful emotional impact on patients and their family members, and it is within the scope of practice for speech-language pathologists to provide counseling related to these disorders. Clinicians and researchers extol the virtues of counseling and underline the necessity of providing it to patients and their families as part of

effective treatment. However, many speech-language pathologists report feeling uncomfortable providing counseling beyond giving information about the counseling disorder, and many indicate that they avoid counseling moments. Currently, there is no 'gold standard' for counseling in speech-language pathology, counseling techniques have little empirical data supporting their use, counseling terms lack operationalized definitions, and speech-language pathologists are not required to be trained in counseling methods, all of which may contribute to their discomfort.

We found that the Empathetic diagnosis delivery was most preferred by the participants in this study. Further, we found that participants' preferences were unrelated to their perceptions of the informativeness of the diagnosis deliveries but they were related to their perceptions of how empathetic the diagnosis deliveries were. These results are consistent with literature in speech-language pathology and other health care fields supporting the use of empathetic counseling techniques (Arnow et al., 2013; Duchan, 2011; Hojat et al., 2011; Holland, 2007a, 2007b; Kaderavek et al., 2004; Lawton et al., 2018; Northcott et al., 2017; McCarley, 2009; Mercer & Reynolds, 2002; Simmons-Mackie & Damico, 2011a; Walsh & Duchan, 2011). We found that individuals who preferred the more Informative diagnosis delivery were older and had more children on average than participants who preferred the Balanced diagnosis delivery. Additionally, participants who did not have children preferred the Balanced diagnosis delivery significantly more than expected. While research literature describing empathy-decline with age supports the finding regarding age differences (Chen et al., 2018; Heller & Beadle, 2018), more research is needed to clarify the relationship between having children and preference. Additionally, we found a trend between Agreeableness scores and preference indicating that participants with higher Agreeableness preferred more empathetic counseling techniques and

individuals with lower Agreeableness preferred a more informative diagnosis delivery manner. This finding is consistent with the literature indicating that Agreeableness is associated with empathy and increased awareness of the impact of emotions (Melchers et al., 2016; Pearman et al., 2010; Tobin et al., 2010). Furthermore, we found that individuals who preferred a more informative diagnosis delivery manner had similar self-ratings on specific Big Five Inventory items, including rudeness, quarrelsomeness, assertiveness, and forgiveness. Further research is needed to determine the significance of these similar self-ratings, especially given the small sample size (n = 2) of individuals who preferred a more informative diagnosis delivery.

Audrey Holland states that "[c]ounseling is perhaps the most important way we SLP-As [speech-language pathologists and audiologists] have to help our clients achieve lifelong goals" (2007, p.2). Establishment of the fact that an Empathetic diagnosis delivery was preference for the majority of participants in this study provides an important step toward making counseling less undefinable and more of a technique like any other a speech-language pathologist might implement to help a person communicate and achieve their goals.

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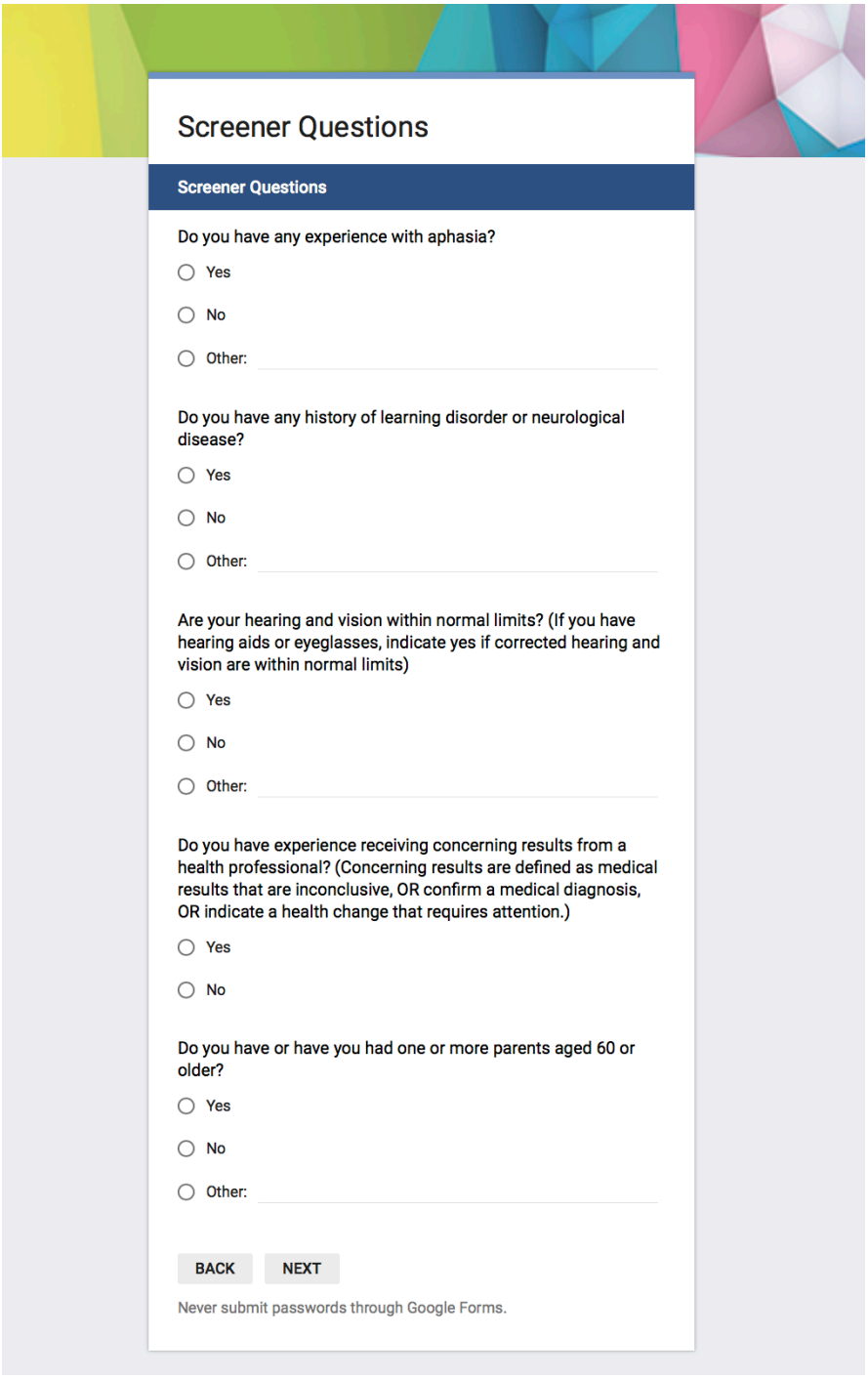
Appendix A
Google Form Screener Questionnaire



Screener Questions

Screener Questions

Do you have any experience with aphasia?

- Yes
- No
- Other:

Do you have any history of learning disorder or neurological disease?

- Yes
- No
- Other:

Are your hearing and vision within normal limits? (If you have hearing aids or eyeglasses, indicate yes if corrected hearing and vision are within normal limits)

- Yes
- No
- Other:

Do you have experience receiving concerning results from a health professional? (Concerning results are defined as medical results that are inconclusive, OR confirm a medical diagnosis, OR indicate a health change that requires attention.)

- Yes
- No

Do you have or have you had one or more parents aged 60 or older?

- Yes
- No
- Other:

BACK NEXT

Never submit passwords through Google Forms.

Appendix B
Links to Diagnosis Delivery Videos

Purple Version (Informative):

https://youtu.be/JeS-NFA-xa8

Green Version (Empathetic):

https://youtu.be/EmZHLNNYCmk

Blue Version (Balanced):

https://youtu.be/Bj3_RaKGHtI

Appendix C
Aphasia Diagnosis Script: Informative

Word Count: 712

Context: Imagine that your father has suffered a stroke, and you are meeting with the speech-language pathologist to hear your father's diagnosis.

** If imagining your father in this hypothetical situation does not feel relevant or appropriate for you, please imagine receiving this diagnosis about a different loved one.

(Neutral statements are indicated by orange font, empathetic statements by purple font, and informative statements by green font. All statements in these colors and indicated by "**SLP**" are spoken by the actor portraying the speech language pathologist. Blue font and "**Pt's son**" indicate lines spoken by the actor portraying the patient's son.)

SLP: As you know, your father suffered a stroke last week.[1] Your father was referred to me because of his neurologist's, physician's, and nurse's concerns about his speech production.[2] This may be hard to hear, considering everything you've already gone through.[3] After administering several different standardized assessments, I have determined that your father has a communication disorder called Broca's aphasia.[4]

Pt's son: What's aphasia?

SLP: Aphasia is caused by damage to the left hemisphere of the brain, specifically the frontal, temporal, and parietal regions, which together are referred to as the language zone.[5] The language zone, as you may have guessed, controls all facets of language including speaking, listening, reading, and writing.[6] Even though most people have never heard of this impairment, aphasia is very common and affects about two million people in America alone.[7] It's actually more common than Parkinson's Disease.[8]

Pt's son: What does that mean? How will my father's language abilities be affected?

SLP: Aphasia affects language skills in many different ways.[9] In your father's case, it primarily affects expression, or his language output.[10] One of the main symptoms of this impairment is

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[1] Neutral statement
[2] Neutral statement
[3] Empathetic statement
[4] Informative statement
[5] Informative statement
[6] Informative statement
[7] Informative statement
[8] Informative statement
[9] Informative statement
[10] Informative statement

problems with word-finding.[11] You know that feeling you get when you have a word on the tip of your tongue but can't quite remember what you want to say?[12] That's similar to how your father may be feeling.[13]Your father may be aware of what he wants to say, but he may not be able to produce the words he intends to.[14] All aphasia types are not the same.[15] There are two broad categories of aphasia--fluent and nonfluent.[16] Your father presents with many classic symptoms of a nonfluent aphasia type called Broca's.[17] You may have noticed his speech sounds relatively slow and a bit flat.[18] He has also been substituting similar sounding and similar meaning words for the words he means to say.[19] For example, during his assessment, he said "tea" when he was looking at a picture of a "tree," and he said "dog" when he was looking at a picture of a "cat."[20] He also struggles with writing tasks.[21]

Pt's son: Is he understanding what I'm saying? I can't really tell.

SLP: Many people wonder whether their loved one can understand them after a stroke.[22] Like many people with Broca's, he actually has fairly good comprehension, which means he is able to understand speech and to read.[23] It can be very frustrating for family members of people with aphasia to think that their loved one doesn't understand what they're saying, but it's important to remember that your father is as intelligent as he was before his stroke despite his new communication difficulties.[24]

Pt's son: *Patient sigh* What does the future look like for him? Will he ever recover his speech?

SLP: I know this is a lot to take in.[25] Your father's daily activities and hobbies, as well as his career, will be greatly affected by this impairment.[26] I know this is disheartening news to receive, but, that being said, your father's language skills will improve in the weeks and months ahead, especially if he receives speech therapy.[27]

Pt's son: What will speech therapy look like for him?

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[11] Informative statement
[12] Empathetic statement
[13] Empathetic statement
[14] Informative statement
[15] Informative statement
[16] Informative statement
[17] Informative statement
[18] Informative statement
[19] Informative statement
[20] Informative statement
[21] Informative statement
[22] Empathetic statement
[23] Informative statement
[24] Empathetic statement
[25] Empathetic statement
[26] Informative statement
[27] Empathetic statement

Appendix C (continued)
Aphasia Diagnosis Script: Informative

SLP: Research suggests that intensive speech therapy is associated with improved patient outcomes, but there are no set guidelines for how often therapy should take place.[28] I recommend that he receive individual and group therapy once a week for forty minutes each.[29] In therapy, we will work on improving your father's speaking, writing, and conversational skills.[30] Therapy tasks will focus on helping your father communicate functionally in his daily life.[31]
Do you have any other questions for me?[32]

Pt's son: Ummm...I can't think of any questions right now, but do you have any resources for me or my family?

SLP: I do[33]. Here is a list of Frequently Asked Questions about aphasia from the National Aphasia Association's website.[34] If you have any questions after reading this information or about anything we talked about today, you can bring them to your father's next session or please feel free to contact me.[35] I know it can be hard to think of questions when someone is throwing a lot of information at you.[36] Here's my card--you can find my contact information on there.[37]

SLP lines:
37 Sentences
23 informative
9 empathetic
5 neutral

[28] Informative statement
[29] Informative statement
[30] Informative statement
[31] Informative statement
[32] Neutral statement
[33] Neutral statement
[34] Informative statement
[35] Empathetic statement
[36] Empathetic statement
[37] Neutral statement

Appendix D
Aphasia Diagnosis Script: Empathetic

Word Count: 772

Context: Imagine that your father has suffered a stroke, and you are meeting with the speech-language pathologist to hear your father's diagnosis.

** If imagining your father in this hypothetical situation does not feel relevant or appropriate for you, please imagine receiving this diagnosis about a different loved one.

(Neutral statements are indicated by orange font, empathetic statements by purple font, and informative statements by green font. All statements in these colors and indicated by "**SLP**" are spoken by the actor portraying the speech language pathologist. Blue font and "**Pt's son**" indicate lines spoken by the actor portraying the patient's son.)

SLP: As you know, your father suffered a stroke last week.[38] Your father was referred to me because of his neurologist's, physician's, and nurse's concerns about his speech production.[39] This may be hard to hear, considering everything you've already gone through, but the tests I gave your father indicate that he has a disorder called "aphasia."[40]

Pt's son: What's aphasia?

SLP: It's pretty normal not to have heard of this diagnosis before, and many people haven't heard of aphasia even though it's quite common.[41] Aphasia is caused by damage to the parts of the brain that create and understand language-- which means speaking, listening, reading, and writing will all be affected.[42]

Pt's son: What does that mean? How will my father's language abilities be affected?

SLP: Aphasia affects language skills in many different ways.[43] One of the main symptoms of this impairment is problems with word-finding.[44] You know that feeling you get when you have a word on the tip of your tongue but can't quite remember what you want to say?[45] That's similar to how your father may be feeling.[46] He has also been substituting similar sounding and similar meaning words.[47] For example, during his assessment, he said "tea" when he was looking at a

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[38] Neutral statement
[39] Neutral statement
[40] Empathetic insertion
[41] Empathetic statement
[42] Informative statement
[43] Informative statement
[44] Informative statement
[45] Empathetic statement
[46] Empathetic statement
[47] Informative statement

picture of a "tree," and he said "dog" when he was looking at a picture of a "cat."[48] I imagine it can be hard and frustrating to wait for your father as he tries to find the words he intends to say, but please try your best to be patient with him.[49] You may have also noticed your father's speech sounds different-- I imagine that might be hard on you, too.[50] It probably feels scary that your father has changed a lot in a short amount of time.[51]

Pt's son: Is he understanding what I'm saying? I can't really tell.

SLP: I imagine it's hard not to know whether your father understands what you're saying to him.[52] Many people wonder whether their loved one can understand them after a stroke.[53] Like many people with this specific aphasia type, he actually has fairly good comprehension, which means he is able to understand speech and to read.[54] It can be very frustrating for family members of people with aphasia to think that their loved one doesn't understand what they're saying, but it's important to remember that your father is as intelligent as he was before his stroke despite his new communication difficulties.[55]

Pt's son: *Patient sigh* What does the future look like for him? Will he ever recover his speech?

SLP: I know this is a lot to take in.[56] Please know that I am here to support both you and your family.[57] It might be hard to see your father unable to participate in activities he used to enjoy.[58] For example, during the evaluation, he told me he loves to write poetry, and that is, unfortunately, something he will most likely have difficulty with.[59] I know this is disheartening news to receive, but, that being said, your father's language skills will improve in the weeks and months ahead, especially if he receives speech therapy.[60]

Pt's son: What will speech therapy look like for him?

SLP: I recommend that he receive individual and group therapy once a week for forty minutes each.[61] In therapy, we will work on improving your father's speaking, writing, and conversational skills.[62] Therapy tasks will focus on helping your father communicate

[48] Informative statement
[49] Empathetic statement
[50] Empathetic statement
[51] Empathetic statement
[52] Empathetic statement
[53] Empathetic statement
[54] Informative statement
[55] Empathetic statement
[56] Empathetic statement
[57] Empathetic statement
[58] Empathetic statement
[59] Empathetic statement
[60] Empathetic statement
[61] Informative statement
[62] Informative statement

functionally in his daily life.[63] We'll all work together to come up with goals for your father that address *his and your* needs.[64]
Do you have any other questions for me?[65]

Pt's son: Ummm...I can't think of any questions right now, but do you have any resources for me or my family?

SLP: I do.[66] It's unfortunately very common for individuals with aphasia and their family members to feel isolated after receiving this diagnosis.[67] Luckily, there are many resources in this community to combat those feelings of isolation.[68] Here's a flyer with information about a local support group for stroke survivors and their loved ones.[69] Once you've had a chance to process a bit more, you may find you have additional questions.[70] I know it can be hard to think of questions when someone is throwing a lot of information at you.[71] If you have any questions about the support group or about anything we talked about today, you can bring them to your father's next session or please feel free to contact me.[72] We will get started right away on giving your father the best possible care.[73] Here's my card--you can find my contact information on there.[74]

SLP lines:
37 Sentences:
23 empathetic
9 informative
5 neutral

[63] Informative statement
[64] Empathetic statement
[65] Neutral statement
[66] Neutral statement
[67] Empathetic statement
[68] Empathetic statement
[69] Empathetic statement
[70] Empathetic statement
[71] Empathetic statement
[72] Empathetic statement
[73] Empathetic statement
[74] Neutral statement

Appendix E
Aphasia Diagnosis Script: Balanced

Word Count: 791

Context: Imagine that your father has suffered a stroke, and you are meeting with the speech-language pathologist to hear your father's diagnosis.

** If imagining your father in this hypothetical situation does not feel relevant or appropriate for you, please imagine receiving this diagnosis about a different loved one.

(Neutral statements are indicated by orange font, empathetic statements by purple font, and informative statements by green font. All statements in these colors and indicated by "**SLP**" are spoken by the actor portraying the speech language pathologist. Blue font and "**Pt's son**" indicate lines spoken by the actor portraying the patient's son.)

SLP: As you know, your father suffered a stroke last week.[75] Your father was referred to me because of his neurologist's, physician's, and nurse's concerns about his speech production.[76] This may be hard to hear, considering everything you've already gone through.[77] After administering several different standardized assessments, I have determined that your father has a communication disorder called Broca's aphasia.[78]

Pt's son: What's aphasia?

SLP: It's pretty normal not to have heard of this diagnosis before, and many people haven't heard of aphasia even though it's quite common.[79] Aphasia is caused by damage to the left hemisphere of the brain, specifically the frontal, temporal, and parietal regions, which together are referred to as the language zone.[80] The language zone, as you may have guessed, controls all facets of language including speaking, listening, reading, and writing.[81] Even though most people have never heard of this impairment, aphasia is very common and affects about two million people in America alone.[82]

Pt's son: What does that mean? How will my father's language abilities be affected?

SLP: Aphasia affects language skills in many different ways.[83] One of the main symptoms of this impairment is problems with word-finding.[84] You know that feeling you get when you have

---

[75] Neutral statement
[76] Neutral statement
[77] Empathetic statement
[78] Informative statement
[79] Empathetic statement
[80] Informative statement
[81] Informative statement
[82] Informative statement
[83] Informative statement
[84] Informative statement

a word on the tip of your tongue but can't quite remember what you want to say?[85] That's similar to how your father may be feeling.[86] Your father may be aware of what he wants to say, but he may not be able to produce the words he intends to.[87] He has been substituting similar sounding and similar meaning words for the words he means to say.[88] For example, during his assessment, he said "tea" when he was looking at a picture of a "tree," and he said "dog" when he was looking at a picture of a "cat."[89] I imagine it can be hard and frustrating to wait for your father as he tries to find the words he intends to say, but please try your best to be patient with him.[90] You may also have noticed his speech sounds relatively slow and a bit flat, and that he struggles with writing.[91] It probably feels scary that your father has changed a lot in a short amount of time.[92]

Pt's son: Is he understanding what I'm saying? I can't really tell.

SLP: I imagine it's hard not to know whether your father understands what you're saying to him.[93]Many people wonder whether their loved one can understand them after a stroke.[94] Like many people with Broca's, he actually has fairly good comprehension, which means he is able to understand speech and to read.[95] It can be very frustrating for family members of people with aphasia to think that their loved one doesn't understand what they're saying, but it's important to remember that your father is as intelligent as he was before his stroke despite his new communication difficulties.[96]

Pt's son: *Patient sigh* What does the future look like for him? Will he ever recover his speech?

SLP: I know this is a lot to take in.[97] Please know that I am here to support both you and your family.[98] It might be hard to see your father unable to participate in activities he used to enjoy.[99] For example, during the evaluation, he told me he loves to write poetry, and that is, unfortunately, something he will most likely have difficulty with.[100] I know this is disheartening news to receive, but, that being said, your father's language skills will improve in the weeks and months ahead, especially if he receives speech therapy.[101]

---

[85] Empathetic statement
[86] Empathetic statement
[87] Informative statement
[88] Informative statement
[89] Informative statement
[90] Empathetic statement
[91] Informative statement
[92] Empathetic statement
[93] Empathetic statement
[94] Empathetic statement
[95] Informative statement
[96] Empathetic statement
[97] Empathetic statement
[98] Empathetic statement
[99] Empathetic statement
[100] Empathetic statement
[101] Empathetic statement

Appendix E (continued)
Aphasia Diagnosis Script: Balanced

Pt's son: What will speech therapy look like for him?

SLP: Research suggests that intensive speech therapy is associated with improved patient outcomes, but there are no set guidelines for how often therapy should take place.[102] I recommend that he receive individual and group therapy once a week for forty minutes each.[103] In therapy, we will work on improving your father's speaking, writing, and conversational skills.[104] Therapy tasks will focus on helping your father communicate functionally in his daily life.[105]
Do you have any other questions for me?[106]

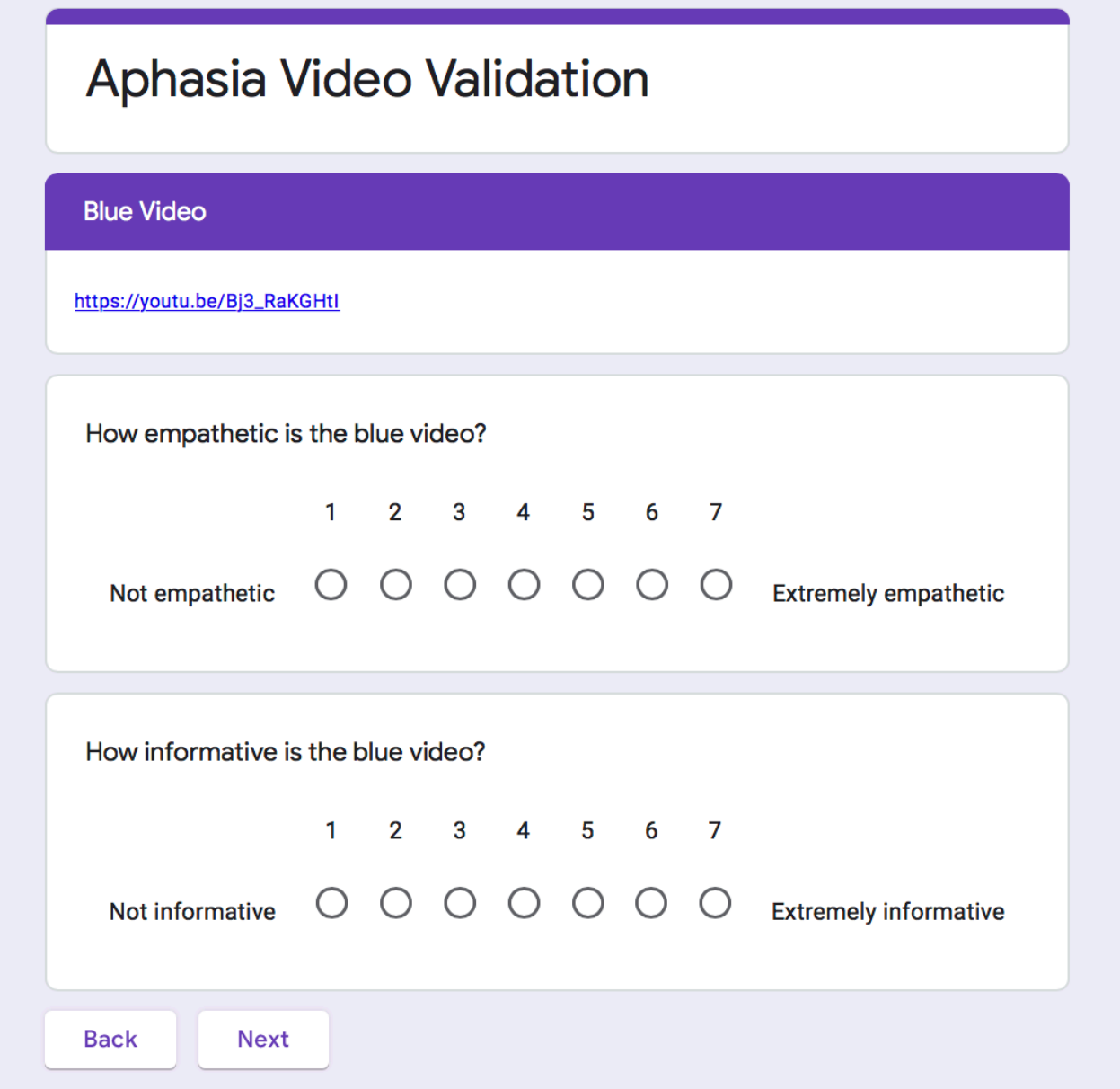
Pt's son: Ummm...I can't think of any questions right now, but do you have any resources for me or my family?

SLP: I do.[107] Here is a list of Frequently Asked Questions about aphasia from the National Aphasia Association website.[108] If you have any questions after reading this information or about anything we talked about today, you can bring them to your father's next session or please feel free to contact me.[109] I know it can be hard to think of questions when someone is throwing a lot of information at you.[110] Here's my card--you can find my contact information on there.[111]

SLP lines:
37 Sentences:
16 empathetic
16 informative
5 neutral

[102] Informative statement
[103] Informative statement
[104] Informative statement
[105] Informative statement
[106] Neutral statement
[107] Neutral statement
[108] Informative statement
[109] Empathetic statement
[110] Empathetic statement
[111] Neutral statement

Appendix F
Screenshot of Video Validation Sample Likert Scale Question



Appendix G
Original Big Five Inventory and Scoring
(Benet-Martinez & John, 1998; John, Donahue, & Kentle, 1991; John, Naumann, & Soto, 2008)

How I am in general

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which **you agree or disagree with that statement.**

1 Disagree Strongly	**2** Disagree a little	**3** Neither agree nor disagree	**4** Agree a little	**5** Agree strongly

I am someone who…

1. _____ Is talkative
2. _____ Tends to find fault with others
3. _____ Does a thorough job
4. _____ Is depressed, blue
5. _____ Is original, comes up with new ideas
6. _____ Is reserved
7. _____ Is helpful and unselfish with others
8. _____ Can be somewhat careless
9. _____ Is relaxed, handles stress well.
10. _____ Is curious about many different things
11. _____ Is full of energy
12. _____ Starts quarrels with others
13. _____ Is a reliable worker
14. _____ Can be tense
15. _____ Is ingenious, a deep thinker
16. _____ Generates a lot of enthusiasm
17. _____ Has a forgiving nature
18. _____ Tends to be disorganized
19. _____ Worries a lot
20. _____ Has an active imagination
21. _____ Tends to be quiet
22. _____ Is generally trusting
23. _____ Tends to be lazy
24. _____ Is emotionally stable, not easily upset
25. _____ Is inventive
26. _____ Has an assertive personality
27. _____ Can be cold and aloof
28. _____ Perseveres until the task is finished
29. _____ Can be moody
30. _____ Values artistic, aesthetic experiences
31. _____ Is sometimes shy, inhibited
32. _____ Is considerate and kind to almost everyone
33. _____ Does things efficiently
34. _____ Remains calm in tense situations
35. _____ Prefers work that is routine
36. _____ Is outgoing, sociable
37. _____ Is sometimes rude to others
38. _____ Makes plans and follows through with them
39. _____ Gets nervous easily
40. _____ Likes to reflect, play with ideas
41. _____ Has few artistic interests
42. _____ Likes to cooperate with others
43. _____ Is easily distracted
44. _____ Is sophisticated in art, music, or literature

Appendix G (Continued)
Original Big Five Inventory and Scoring

SCORING INSTRUCTIONS

To score the BFI, you'll first need to **reverse-score** all negatively-keyed items:

Extraversion: 6, 21, 31
Agreeableness: 2, 12, 27, 37
Conscientiousness: 8, 18, 23, 43
Neuroticism: 9, 24, 34
Openness: 35, 41

To recode these items, you should subtract your score for all reverse-scored items from 6. For example, if you gave yourself a 5, compute 6 minus 5 and your recoded score is 1. That is, a score of 1 becomes 5, 2 becomes 4, 3 remains 3, 4 becomes 2, and 5 becomes 1.

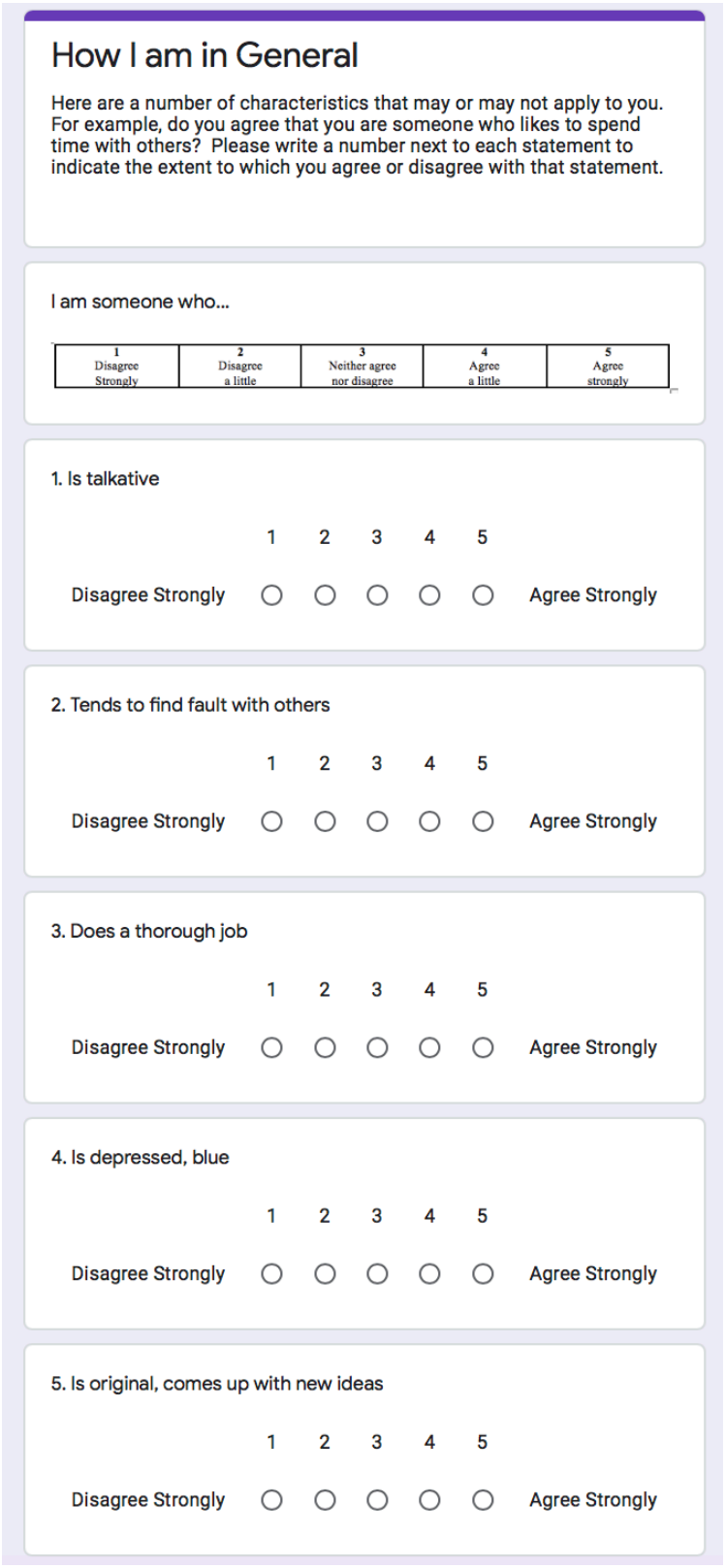
Next, you will create scale scores by ***averaging*** the following items for each B5 domain (where R indicates using the reverse-scored item).

Extraversion: 1, 6R 11, 16, 21R, 26, 31R, 36
Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42
Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R
Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39
Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

SPSS SYNTAX

```
*** REVERSED ITEMS
RECODE
  bfi2 bfi6 bfi8 bfi9 bfi12 bfi18 bfi21 bfi23 bfi24 bfi27 bfi31 bfi34 bfi35
  bfi37 bfi41 bfi43
  (1=5)  (2=4)  (3=3)  (4=2)  (5=1)  INTO  bfi2r bfi6r bfi8r bfi9r bfi12r bfi18r bfi21r bfi23r bfi24r
  bfi27r bfi31r bfi34r bfi35r bfi37r bfi41r bfi43r.
EXECUTE .

*** SCALE SCORES
COMPUTE bfie = mean(bfi1,bfi6r,bfi11,bfi16,bfi21r,bfi26,bfi31r,bfi36) .
VARIABLE LABELS bfie 'BFI Extraversion scale score.
EXECUTE .

COMPUTE bfia = mean(bfi2r,bfi7,bfi12r,bfi17,bfi22,bfi27r,bfi32,bfi37r,bfi42) .
VARIABLE LABELS bfia 'BFI Agreeableness scale score' .
EXECUTE .

COMPUTE bfic = mean(bfi3,bfi8r,bfi13,bfi18r,bfi23r,bfi28,bfi33,bfi38,bfi43r) .
VARIABLE LABELS bfic 'BFI Conscientiousness scale score' .
EXECUTE .

COMPUTE bfin = mean(bfi4,bfi9r,bfi14,bfi19,bfi24r,bfi29,bfi34r,bfi39) .
VARIABLE LABELS bfin 'BFI Neuroticism scale score' .
EXECUTE .

COMPUTE bfio = mean(bfi5,bfi10,bfi15,bfi20,bfi25,bfi30,bfi35r,bfi40,bfi41r,bfi44) .
VARIABLE LABELS bfio 'BFI Openness scale score' .
EXECUTE .
```

Appendix H
Screenshot of Google Form Big Five Inventory Sample Questions



How I am in General

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

I am someone who...

1	2	3	4	5
Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly

1. Is talkative

	1	2	3	4	5	
Disagree Strongly	○	○	○	○	○	Agree Strongly

2. Tends to find fault with others

	1	2	3	4	5	
Disagree Strongly	○	○	○	○	○	Agree Strongly

3. Does a thorough job

	1	2	3	4	5	
Disagree Strongly	○	○	○	○	○	Agree Strongly

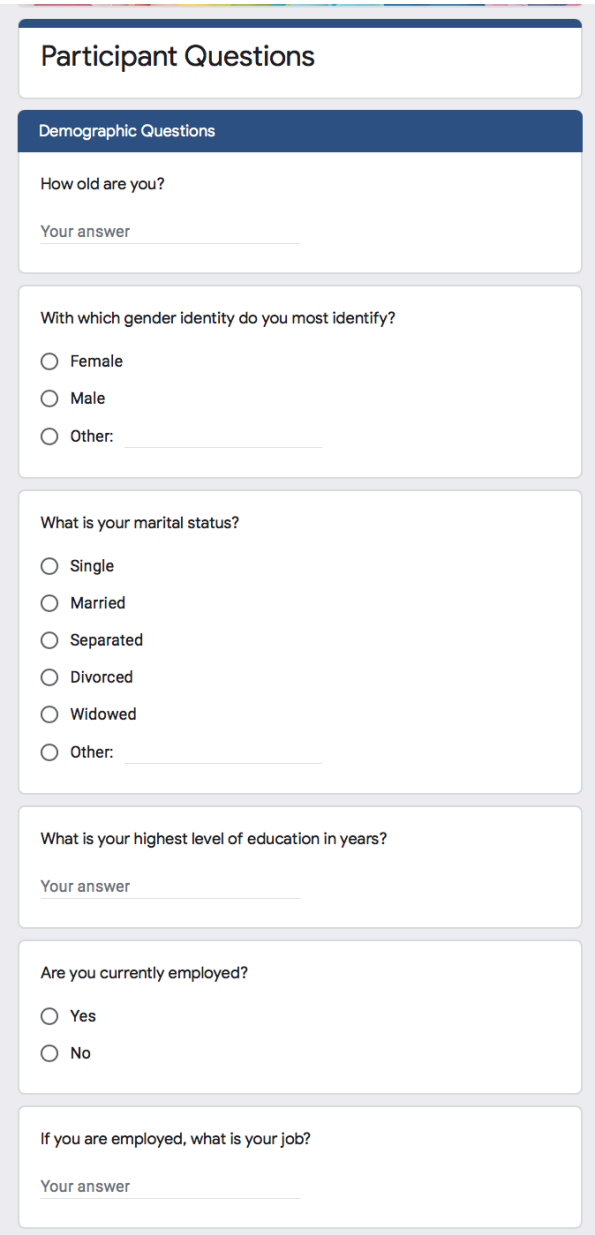
4. Is depressed, blue

	1	2	3	4	5	
Disagree Strongly	○	○	○	○	○	Agree Strongly

5. Is original, comes up with new ideas

	1	2	3	4	5	
Disagree Strongly	○	○	○	○	○	Agree Strongly

Appendix I
Screenshots of Google Form Demographic Questionnaire



Participant Questions

Demographic Questions

How old are you?

Your answer

With which gender identity do you most identify?

- Female
- Male
- Other:

What is your marital status?

- Single
- Married
- Separated
- Divorced
- Widowed
- Other:

What is your highest level of education in years?

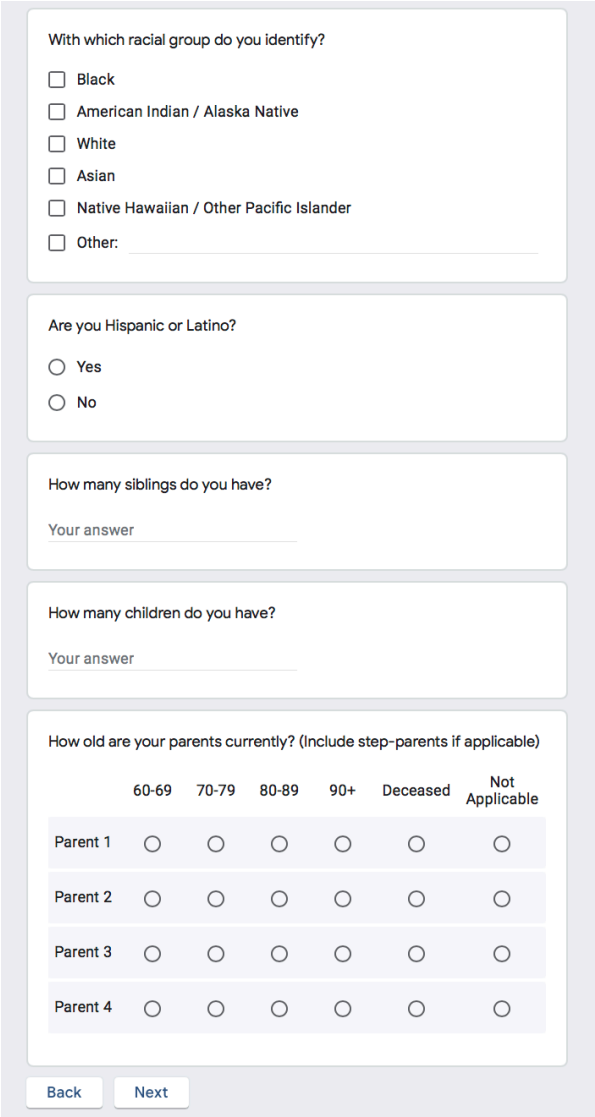
Your answer

Are you currently employed?

- Yes
- No

If you are employed, what is your job?

Your answer



With which racial group do you identify?

- Black
- American Indian / Alaska Native
- White
- Asian
- Native Hawaiian / Other Pacific Islander
- Other:

Are you Hispanic or Latino?

- Yes
- No

How many siblings do you have?

Your answer

How many children do you have?

Your answer

How old are your parents currently? (Include step-parents if applicable)

	60-69	70-79	80-89	90+	Deceased	Not Applicable
Parent 1						
Parent 2						
Parent 3						
Parent 4						

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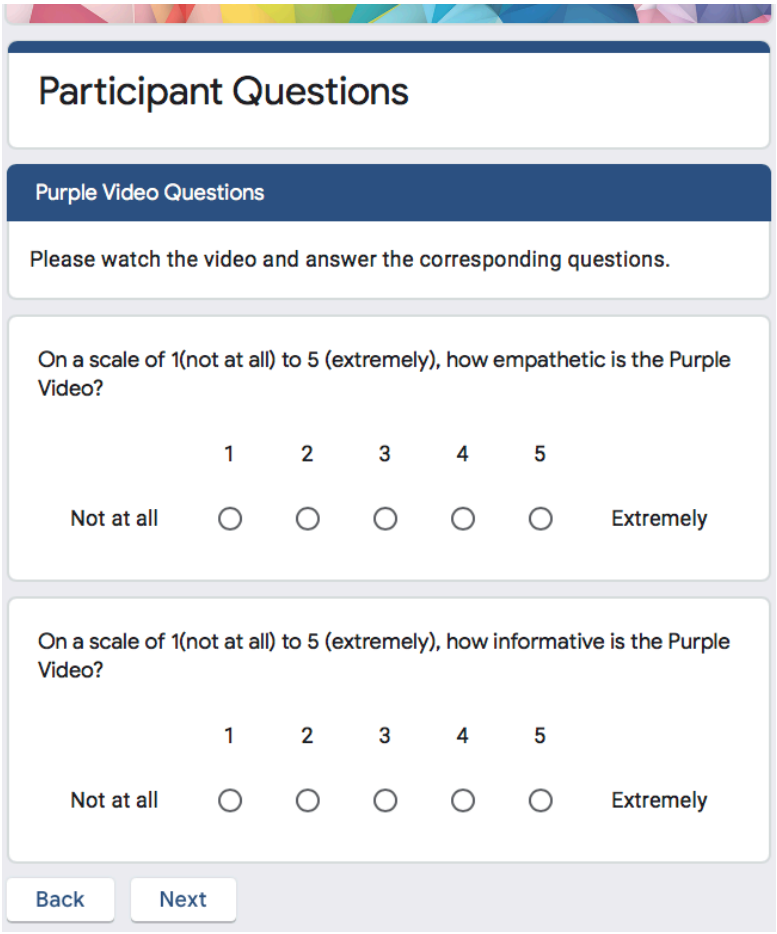
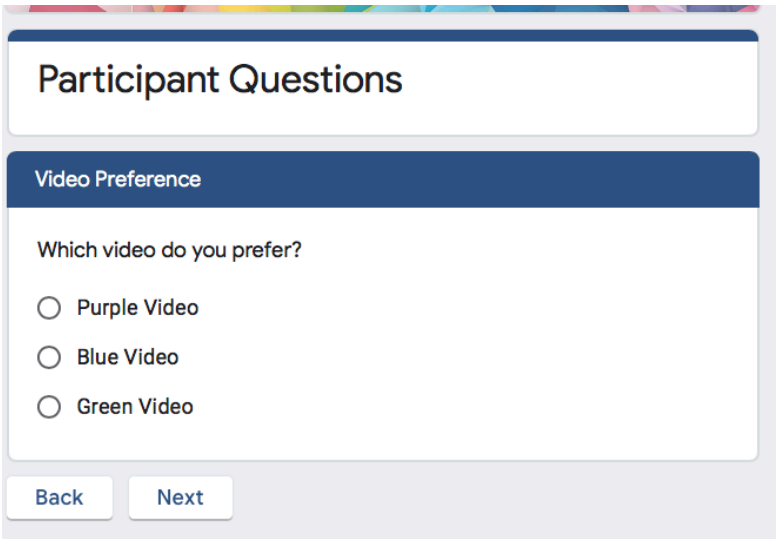
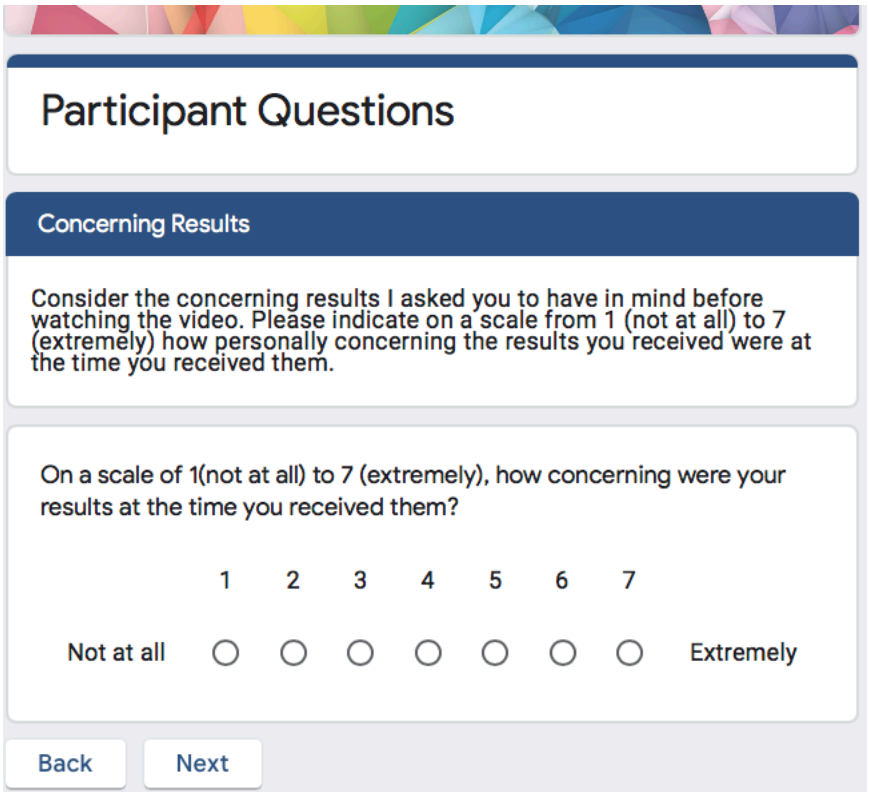
Appendix J

Screenshots of Google Form: Sample Diagnosis Delivery Rating Question and Diagnosis Delivery Preference Question





Appendix K
Screenshot of Google Form Concerning Results Rating



Appendix L
Scripts Used by Researcher in Procedures

Definition of concerning results:

> "Concerning results can include any medical results that were inconclusive, confirmed a medical diagnosis, or indicated a health change that required additional attention. For example, a concerning inconclusive result could be receiving news that further testing is needed, or that you were being referred to another healthcare professional. Additional examples include receiving a confirmed medical diagnosis, such as the presence of a malignancy, or a health change that requires attention, such as a change in blood pressure."

Instructions and Explanation regarding concerning results:

> "I would like you to think back to the time that you received these concerning results and to try and recall how you felt when you first received that information. Try and keep the emotions you experienced then in mind as you watch the hypothetical situations presented here. Research has shown that if you keep events you have experienced in mind, you are likely to be more accurate at predicting your reactions in similar, hypothetical situations."

Appendix M

Table of Participants' Empathy and Informativeness Ratings of Diagnosis Deliveries

Diagnosis Delivery	Rating					
	Empathy			Informativeness		
	Range	M	SD	Range	M	SD
Informative						
All participants (*N* = 41)	**1 - 5**	**2.53**	**0.95**	**3 – 5**	**4.59**	**0.59**
Participants who preferred Informative video (*n* = 2)	4 – 5	4.50	0.71	5	5.00	0.00
Participants who preferred Empathetic video (*n* = 27)	1 – 4	2.56	0.93	3 – 5	4.56	0.64
Participants who preferred Balanced video (*n* = 12)	1 – 3	2.17	0.58	4 – 5	4.58	0.51
Empathetic						
All participants (*N* = 41)	**2 – 5**	**4.34**	**0.78**	**2 – 5**	**4.34**	**0.72**
Participants who preferred Informative video (*n* = 2)	3 – 5	4.00	1.41	3 – 4	3.5	0.71
Participants who preferred Empathetic video (*n* = 27)	3 – 5	4.67	0.55	3 – 5	4.48	0.58
Participants who preferred Balanced Video (*n* = 12)	4 – 5	4.00	0.95	2 – 5	4.17	0.94
Balanced						
All participants(*N* = 41)	**1 – 5**	**3.66**	**1.06**	**3 – 5**	**4.34**	**0.69**
Participants who preferred Informative video (*n* = 2)	5	5.00	0.00	5	5.00	0.00
Participants who preferred Empathetic video (*n* = 27)	1 – 5	3.41	1.05	3 – 5	4.19	0.74
Participants who preferred Balanced Video (*n* = 12)	2 – 5	4.00	0.95	4 – 5	4.58	0.51

Note: Ratings of empathy and informativeness were chosen on a five-point Likert scale; one signified "Not at all [empathetic/informative]" and five signified "Extremely [empathetic/informative].