Examining the Relationship Between Perceptions of a Known Person Who Stutters and Attitudes Toward Stuttering

Explorer la relation entre la perception des individus envers une personne bègue qu'ils connaissent et leurs attitudes face au bégaiement

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Abstract

The focus of this study was to examine the association between familiarity and attitudes toward stuttering. In total, 152 participants completed a survey consisting of Likert-type questions where they rated their perceptions of a known person who stutters (PWS). Questions were organized for analysis into 3 categories, which included perceptions of the quality of the relationship; how the known PWS copes with stuttering; and perceived impact of stuttering. Participants then completed a semantic differential scale related to their attitudes toward the known PWS, and were asked to complete the same scale thinking of an average PWS. Significant positive correlations were found between ratings of the quality of the relationship with the known PWS and positive ratings of their traits. Furthermore, how important the known PWS was to a participant was positively correlated with ratings of an average PWS as trustworthy and reliable. Perceptions regarding how the known PWS coped with stuttering were positively correlated with positive ratings of this person's traits. The most significant negative correlations were observed between perceptions of how stuttering impacted the known PWS and attitudes toward the known and average PWS. That is, the more participants perceived stuttering impacting the known PWS, the more negative their perceptions were of the known and average PWS. Findings provide support for encouraging the public to become familiar with individuals who stutter who demonstrate positive management with stuttering. Furthermore, this study helps clarify inconsistencies reported in the literature related to the impact of familiarity on attitudes toward stuttering.

Abrégé

Cette étude vise à explorer la relation entre la familiarité des individus envers le bégaiement et leurs attitudes face à ce trouble de la parole. Au total, 152 participants ont rempli un questionnaire utilisant des échelles de Likert et leur demandant d'évaluer leurs perceptions envers une personne bègue qu'ils connaissent. Les questions ont été regroupées en trois catégories pour les analyses : la perception des individus concernant la qualité de leur relation avec la personne bègue qu'ils connaissent, la perception des individus quant à l'adaptation de la personne bègue qu'ils connaissent face au bégaiement et la perception des individus quant à l'impact du bégaiement. Les participants ont ensuite rempli une échelle sémantique différentielle portant sur leurs attitudes envers la personne bègue qu'ils connaissent. Ils ont également rempli la même échelle en pensant à une personne bègue typique. Les résultats montrent que la qualité de la relation des individus avec la personne bègue qu'ils connaissent est positivement et significativement corrélée avec une évaluation positive de leurs traits de personnalité. De plus, l'importance d'une personne bègue aux yeux des participants est positivement corrélée avec une perception que les personnes bègues typiques sont fiables et dignes de confiance. La perception des participants à propos de la façon dont la personne bègue qu'ils connaissent s'adapte au bégaiement est positivement corrélée avec une évaluation positive des traits de personnalité de cette personne. Les résultats montrent que les corrélations négatives les plus significatives portent sur la relation entre la perception des participants à propos de la façon dont le bégaiement affecte la personne bègue qu'ils connaissent et leurs attitudes envers la personne bègue qu'ils connaissent et les personnes bègues typiques. En d'autres mots, plus les participants perçoivent que le bégaiement affecte la personne bègue qu'ils connaissent, plus ils perçoivent négativement la personne bègue qu'ils connaissent et les personnes bègues typiques. Les résultats suggèrent que d'apprendre à connaitre une personne bègue qui prend en charge son bégaiement de façon positive devrait être encouragé au sein du public. Cette étude contribue également à clarifier les discordances rapportées dans la littérature à propos de l'impact de la familiarité des individus envers le bégaiement et leurs attitudes face à ce trouble de la parole.

It is well documented that various populations report negative attitudes toward stuttering (Cooper & Cooper, 1996; Crowe & Cooper, 1977; Crowe & Walton, 1981; Dorsey & Guenther, 2000; Silverman & Bongey, 1997; St. Louis, 2011; Turnbaugh, Guitar, & Hoffman, 1979; Walker, Mayo, & St. Louis, 2016; Yairi & Carrico, 1992). The impact of these attitudes on people who stutter has been highlighted by Yaruss and Quesal (2004) in their description of the International Classification of Functioning, Disability and Health model. In this application, Yaruss and Quesal describe how negative attitudes have an adverse impact on the quality of life of people who stutter. Therefore, it is important to explore variables that could potentially decrease these negative attitudes, in hopes of improving the quality of life of people who stutter.

One variable that has been discussed as a way to improve attitudes toward certain populations is familiarity. The benefit of familiarity can be explained through the contact hypothesis described by Allport (1954) where he suggests that, as a method to decrease stigmatization toward a marginalized group, individuals come into contact with an individual in the group in order to obtain a more accurate understanding of the population. Many studies have explored whether or not this contact, or familiarity, has an impact on attitudes toward people who stutter (Arnold & Li, 2016; Boyle, Blood, & Blood, 2009; Doody, Kalinowski, Armson, & Stuart, 1993; Gabel, Tellis, & Althouse, 2004; Hughes, Gabel, Irani, & Schalgheck, 2010; Klassen, 2001, 2002; Schlagheck, Gabel, & Hughes, 2009). Research to date has found that familiarity has an inconsistent impact on attitudes toward people who stutter.

Familiarity having no effect on attitudes

Some evidence suggests familiarity does not have an effect on attitudes. For instance, Doody et al. (1993) examined the perceptions of 106 individuals from rural communities in Newfoundland toward stuttering. They found that regardless of familiarity, participants viewed a person who stutters (PWS) more negatively versus a non-stuttering individual. Gabel et al. (2004) reported similar results in their investigation of 195 university students, which concluded that different levels of familiarity did not have a significant positive impact on perceptions toward people who stutter. Hughes et al. (2010) found similar results when examining how university students perceived the impact stuttering has on a person's life. In their survey, 110 of 146 participants reported knowing at least one PWS; however, familiarity with a PWS did not have a significant impact on perceptions. University students' attitudes toward stuttering were also explored by Boyle et al. (2009) in their

investigation of 204 college-aged students. Boyle et al. examined whether causality, curability, and familiarity had an influence on attitudes toward stuttering and found that perceived causality was found to be a factor in affecting attitudes; however, familiarity was found to be unrelated to attitudes.

Familiarity having positive effects on attitudes

Other studies have shown familiarity can have a positive impact on attitudes toward stuttering. For instance, Klassen (2001) concluded that individuals who knew a PWS demonstrated a positive attitude toward people who stutter and proposed that this contact with stuttering could improve overall perceptions of people who stutter. In another study, Klassen (2002) utilized a semantic differential scale to examine responses from 108 individuals who knew someone who stutters. Klassen's findings revealed that individuals who knew someone who stutters demonstrated more positive attitudes toward stuttering when compared to previous studies of the general public toward stuttering. Klassen concluded that these findings provided support that familiarity with a PWS has a positive impact on attitudes toward stuttering. In addition, Schlagheck et al. (2009) investigated stereotyping of people who stutter using a mixed method design exploring the impact of several variables on attitudes toward stuttering, where familiarity was found to have a positive effect. More recently, Arnold and Li (2016) examined the relationship between beliefs about people who stutter and behavioural and affective reactions toward stuttering. A database from the Public Opinion Survey of Human Attributes – Stuttering was used, and when filtered for the purposes of their study produced 2,206 participants. Arnold and Li found that familiarity was related to how participants reacted toward people who stutter, and concluded that having the public become familiar with a PWS has implications related to improving how others react toward people who stutter.

Statement of the problem

Research exploring the relationship between familiarity and attitudes toward stuttering has produced mixed results. Despite the many studies that have examined this relationship, little is known as to the underlying reasons for the discrepancy. One possible explanation could be that previous studies may not have accounted for the complexity of knowing another PWS. For example, asking questions related to the extent to which a person is familiar with a PWS, and their perceptions of how they are managing their stuttering, may add another layer of understanding of the impact of familiarity on attitudes toward stuttering.

These factors could add nuances to familiarity that have not yet been fully explored, and could help clarify the varied findings observed in the relationship between familiarity and attitudes toward stuttering.

Purpose

The purpose of this study was to better understand the relationship between familiarity and attitudes toward stuttering for both a known and average PWS. The following research questions were used to explore whether a relationship exists between perceptions of a known PWS and attitudes toward the known and average PWS:

1) Does the quality of relationship with a known PWS relate to attitudes toward the known and average PWS?

2) Is there a relationship between the perceptions of how a known person manages their stuttering and attitudes toward the known and average PWS?

3) How do perceptions of how stuttering impacts a known PWS relate to attitudes toward a known and average PWS?

Methods

Questionnaire design and procedures

A questionnaire was developed after reviewing previous research exploring attitudes toward stuttering. In addition, many of the survey questions and procedures were used and adapted from previous studies (Klassen, 2001, 2002; Turnbaugh et al., 1979; Woods & Williams, 1976). One part of the questionnaire included the semantic differential scale, which has been utilized in many studies (e.g., Gabel et al., 2004; Klassen, 2001, 2002; Turnbaugh et al., 1979; Woods & Williams, 1976). This method was chosen due to the consistency in findings across studies exploring perceptions of stuttering. Additional items were designed specifically for this study to gather data about participants' demographic information, as well as perceptions of their experiences with people who stutter according to relationships, familiarity, and behaviours. Though the study did not engage in standardization and testing of the validity of these items, it was judged that these items would be appropriate for this study. These additional items were developed based on a review of published studies exploring similar research questions related to stuttering and the impact of a variety of factors on perceptions of people who stutter (Crowe & Cooper, 1977; Crowe & Walton, 1981; Doody et al., 1993; Gabel et al., 2004; Klassen, 2001, 2002; St. Louis, 2011).

The questionnaire was composed of three sections, with the first section consisting of demographic information. Some of the main questions in this section included level of education, occupation, age, gender, and if participants knew anyone who stuttered. The second section included survey questions related to perceptions toward a known PWS. If participants reported knowing multiple people who stutter, they were asked to complete the questions in the second section in regard to the person they knew the best, or in other words, with whom they were most familiar. This section asked participants to respond to questions related to the nature of their relationship and quality of familiarity with the known PWS, as well as perceptions of their communication ability and stuttering. Participants were asked to respond to questions related to quality of the relationship with the known PWS and perceptions of their communication and stuttering on a 5-point Likert scale, indicating their level of agreement from 1 (*Strongly Agree*) to 5 (*Strongly Disagree*). A total of 11 survey items used this Likert scale.

For the third and final section of the survey, participants responded to Woods and Williams' (1976) semantic differential scale, which consisted of a total of 25 items on a 7-point scale. Each item consisted of an adjective located in the left column with a corresponding antonym (e.g., trustworthy-untrustworthy) in the right column. To assure even distribution of positive and negative adjectives, each pair was randomly distributed so that positive and negative adjectives were randomly positioned in right and left columns of the scale. Participants rated their perceptions on the 7-point scale for all 25 adjectives. Participants first completed the scale with regard to the known PWS, and then completed another copy of the scale with respect to an average PWS. A definition of stuttering was not included in the survey. Thus, participants were required to think of what they believed an average, typical PWS was like when completing the second semantic differential scale. The word *average* was used as a way to keep in line with other studies that have examined attitudes toward stuttering, in that they have used a synonym of *typical* when referring to a PWS (Doody et al., 1993; Woods & Williams, 1976). Furthermore, the Klassen (2001, 2002) studies have incorporated similar procedures when measuring the impact of familiarity on attitudes toward stuttering.

Participants

This study was reviewed and approved by the Human Subjects Review Board at Bowling Green State University. In order to take part in the study, the following criteria were met: (1) being above the age of 18; (2) not

reporting a history of stuttering; and (3) knowing a PWS. Participants were recruited in a variety of settings, which included public establishments such as restaurants, office buildings, and college classrooms. A total of 326 survey packets were distributed, with 204 surveys returned. From these returned surveys, 21 were deemed incomplete, eight individuals were a PWS, and 23 did not know anyone who stuttered.

As a result, there were 152 participants who met the inclusion criteria. It should be noted that this study is part of a larger study examining factors that influence attitudes toward stuttering. Results from other parts of the survey can be found in a separate study with these participants using the previously described questionnaire procedures (Hughes, Gabel, & Palasik, 2011). Participants consisted of 65 males and 87 females with a mean age of 26.39 (SD = 12.16). A variety of relationships with people who stutter were reported, with 81 participants reporting having friends who stutter; 24 reporting having classmates/acquaintances who stutter; 13 choosing the *other* category; eight reporting a co-worker; five reporting a professor/teacher; three reporting a client, and one reporting a student. Finally, a variety of family members were reported, which included spouses, aunts/uncles, cousins, siblings, and parents—which, when combined,

totalled 17 participants. Participants reported knowing some people who stutter for many years, with 65 participants reporting a relationship lasting between 1 and 10 years, and 49 participants reporting a relationship lasting longer than 10 years. Thirty-eight participants reported knowing a PWS for 1 year or less.

Analysis

Survey items. To organize the 11 Likert scale survey items for analysis, the first and second author discussed how similar questions could possibly be grouped to form categories. After multiple discussions, a consensus was reached regarding how to categorize questions. These categories are presented in Table 1. The categories consisted of questions that focused on the quality of the relationship, coping with stuttering, and the impact of stuttering. The quality of the relationship was chosen as a name for the category because these questions asked participants to reflect on how well they knew the person and how they viewed the relationship. Coping with stuttering was chosen as the descriptor for the second category because these questions generally focused on how the person dealt with their stuttering. The last category consisted of questions related to the perceived impact of stuttering on various aspects of the known person's life.

Table 1. Categories of Survey Questions

Category	Likert-type question (1 = strongly agree, 5 = strongly disagree)
Quality of Familiarity	I know this person well.
	I have a good relationship with this person.
	This person is important to me.
Coping with Stuttering	This person is a good communicator.
	This person is a competent speaker.
	This person stutters more frequently in some situations than others.
	This person appeared to be comfortable in discussing his/her stuttering.
Impact of Stuttering	I feel that stuttering has affected this person socially.
	I feel that stuttering has affected this person educationally.
	I feel that stuttering has affected this person occupationally.
	I feel that stuttering has not affected this person in any way.

Semantic differential scale. In preparation for data analysis, each of the 25 items on the semantic differential scale was scored such that the higher mean scores were indicative of a negative trait and a lower mean was indicative of a positive trait. This required that all items be arranged so the positive adjectives were allotted to the lower number on the 7-point scale, and participants' reports were adjusted accordingly. Pearson product-moment correlations were then conducted for each survey item with the 25 items on the semantic differential scale for the known and average PWS. For correlations that were significant for the known PWS but not for the average PWS, a Fisher z-test was used to transform the correlation statistic to a z-score to determine if these associations were significantly different from one another. A Bonferroni adjustment was completed with regard to the alpha level (.05) with the 25 semantic differential items. This correction was made due to the

multiple comparisons with the 25 semantic differential scale items. The p-value was divided by the number of semantic differential items (.05 / 25), which equalled an alpha level of .002. This alpha level was used for analysis.

Results

Pearson product-moment correlations between the items related to the three categories (quality of relationships, coping with stuttering, and impact of stuttering) and the responses on the semantic differential scales were calculated. Additionally, descriptive statistics were calculated for each survey item (see Table 2) and for individual semantic differential scale items for the known and average PWS (see Table 3). Findings from the correlations are presented in relation to the known and then average PWS. Recall that lower numbers on the 7-point scale are related to more positive adjectives.

Table 2. Descriptive Statistics for Survey Items

Item	Mean (SD)	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
I know this person well.	2.21 (1.01)	45	47	46	11	3
I have a good relationship with this person.	2.16 (.931)	38	66	35	11	2
This person is important to me.	2.34 (.949)	33	50	55	12	2
This person appeared comfortable discussing his/her stuttering.	2.81 (.882)	13	32	83	19	5
I feel that stuttering has affected this person socially.	2.96 (1.15)	10	58	27	42	15
I feel that stuttering affected this person educationally.	3.39 (1.06)	3	32	44	48	25
I feel that stuttering has affected this person occupationally.	3.43 (1.00)	2	24	59	40	27
I feel that stuttering has not affected this person in any way.	3.44 (1.11)	9	23	36	60	24
This person is a good communicator.	2.58 (.903)	10	75	38	27	2
The person is a competent speaker.	2.74 (.919)	8	62	47	32	3
This person stutters more frequently in some situations than in others.	2.04 (.805)	36	82	28	4	2

N = 152

Table 3. Descriptive Statistics for Semantic Differential Scale Items

Semantic Differential Item	Known PWS mean (SD)	Average PWS mean (SD)
1. Sociable-unsociable	2.44 (1.45)	4.06 (1.34)
2. Trustworthy-untrustworthy	2.20 (1.44)	2.66 (1.20)
3. Passive-aggressive	4.29 (1.46)	4.76 (1.26)
4. Secure-insecure	3.54 (1.72)	5.08 (1.27)
5. Introverted-extroverted	3.66 (1.41)	4.84 (1.19)
6. Intelligent-dull	2.76 (1.44)	3.47 (1.22)
7. Withdrawn-outgoing	2.81 (1.59)	4.59 (1.23)
8. Hesitant-daring	3.46 (1.42)	4.80 (1.25)
9. Intelligent-unintelligent	2.77 (1.63)	3.01 (1.28)
10. Composed-anxious	4.09 (1.58)	4.72 (1.24)
11. Sincere-insincere	2.45 (1.28)	2.90 (1.32)
12. Likable-unlikable	2.06 (1.32)	2.64 (1.25)
13. Shy-bold	3.89 (1.63)	5.36 (1.36)
14. Calm-nervous	4.28 (1.52)	5.26 (1.26)
15. Pleasant-unpleasant	2.36 (1.30)	3.13 (1.30)
16. Reliable-unreliable	2.95 (1.76)	2.88 (1.31)
17. Employable-unemployable	2.39 (1.59)	2.88 (1.33)
18. Fearless-fearful	3.80 (1.34)	4.55 (1.08)
19. Friendly-unfriendly	2.02 (1.19)	2.99 (1.23)
20. Open-guarded	3.25 (1.66)	4.49 (1.45)
21. Competent-incompetent	2.70 (1.48)	3.26 (1.31)
22. Excited-frustrated	3.59 (1.39)	4.66 (1.28)
23. Sensitive-insensitive	2.84 (1.32)	2.86 (1.28)
24. Self conscious-self assured	4.07 (1.61)	5.11 (1.39)
25. Relaxed-tense	3.90 (1.45)	4.93 (1.26)

$N = 152$

Quality of relationship

Known PWS. Correlation results for quality of relationship survey items with the 25-item semantic differential scale of the known and average PWS can be observed in Table 4. Findings show a significant positive relationship between all three quality of relationship survey items and certain traits. For example, the more participants reported knowing someone who stutters, the more they perceived that person as sociable. In addition, the more participants perceived a good relationship with the known PWS, the more they viewed that person as trustworthy. Finally, the more participants viewed their relationship with the known PWS as important, the more they perceived that person as sociable, trustworthy, sincere, reliable, and relaxed.

Average PWS. Two significant positive correlations were observed between how important participants viewed the relationship with the known PWS and two semantic differential scale items. More specifically, the more importance participants assigned to their relationship with

a known PWS, the more they perceived an average PWS to be reliable and trustworthy.

Correlation comparisons. Recall that, as part of the analysis, a Fisher z-test transformation was conducted for correlations that were found to be significant for the known PWS but not the average PWS on Likert scale items. Results of the Fisher z-test found significant differences between correlations for quality of relationship survey items and attitudes toward the known and average PWS. More specifically, the association with how well participants knew the known PWS was significantly stronger than the average PWS related to how social they viewed the person (Z = 3.06, p = .002). Furthermore, the association with how important participants viewed the relationship with the known PWS was significantly stronger for the known PWS compared to the average PWS, in regard to being social (Z = 2.35, p = .018) and relaxed (Z = 2.33, p = .019). That is, these associations did not transfer to people who stutter in general, but were found to be significantly stronger for the known person.

Table 4. Correlations for Semantic Differential Scale Items and Quality of Relationship for Known and Average PWS

Semantic Differential Scale Item	I know this person well.		I have a good relationship with this person.		This person is important to me.	
	Known	AVG	Known	AVG	Known	AVG
Sociable-unsociable	.275*	-.072	.241	-.003	.256*	-.011
Trustworthy-untrustworthy	.165	.076	.251*	.140	.297*	.249*
Passive-aggressive	.227	.041	.189	.114	.191	-.007
Secure-insecure	.109	-.034	.126	-.062	.113	-.105
Introverted-extroverted	.119	.039	.133	.018	.135	-.081
Intelligent-dull	.126	-.074	.178	-.010	.192	.050
Withdrawn-outgoing	.198	-.032	.183	-.028	.215	-.004
Hesitant-daring	.098	-.044	.053	-.056	.079	-.075
Intelligent-unintelligent	.110	.081	.091	.005	.124	.124
Composed-anxious	-.115	.089	-.014	.057	-.046	.053
Sincere-insincere	.115	.006	.126	.019	.263*	.053
Likeable-unlikable	.050	.034	.111	-.017	.206	.049

Shy-bold	.126	-.026	.094	-.057	.143	-.079
Calm-nervous	.060	.013	.101	-.060	.150	-.070
Pleasant-unpleasant	.128	.109	.142	-.013	.238	.060
Reliable-unreliable	.128	.099	.235	.124	.267*	.261*
Employable-unemployable	.051	.156	.041	.128	.103	.248
Fearless-fearful	.129	-.107	.107	-.085	.144	-.050
Friendly-unfriendly	.134	.135	.117	.083	.211	.134
Open-guarded	.106	.014	.128	-.021	.147	-.013
Competent-incompetent	.095	.003	.065	.068	.140	.103
Excited-frustrated	.066	-.061	.057	-.069	.101	-.045
Sensitive-insensitive	.055	.104	.081	.119	.133	.142
Self conscious-self assured	.064	.011	.027	-.019	.049	.011
Relaxed-tense	.159	-.020	.179	-.070	.261*	-.003

N = 152, *p < .002

Coping with stuttering

Known PWS. Complete results of the correlations for known and average PWS related to coping with stuttering can be found in Table 5. Significant positive correlations were found between perceptions of how the known PWS was comfortable in discussing their stuttering and ratings on semantic differential scale items for the known PWS. More specifically, the more participants perceived the known PWS as being comfortable discussing stuttering, the more they perceived the person as sociable, open, and relaxed. Many significant positive correlations were found between both questions related to viewing the known PWS as a *good* or *competent* communicator and semantic differential scale items. For example, the more participants perceived the known PWS as a good communicator, the more they rated them as being sociable, trustworthy, secure, extroverted, intelligent, outgoing, daring, sincere, bold, calm, pleasant, fearless, friendly, open, excited, self-assured, and relaxed. Furthermore, the more participants rated the known PWS as a competent speaker, the more they perceived them as sociable, trustworthy, secure, extroverted, intelligent, outgoing, daring, bold, competent, self-assured, and relaxed. Perceptions of the variability of

the known person's stuttering produced significant negative correlations, revealing that the more participants perceived the person's stuttering as varying across situations, the more they perceived that person as anxious, nervous, and self-conscious.

Average PWS. Although some correlations were noted as approaching the level of significance, no statistically significant correlations were noted between any semantic differential scale items for the average PWS and survey items related to coping with stuttering. More specifically, perceptions of how the known PWS coped with stuttering were not found to be significantly related to attitudes toward the average PWS.

Correlation comparisons. Significant differences were found for correlations between the known and average PWS related to how good a communicator the known PWS was perceived. These significant differences were noted for the following traits: sociable (*Z* = 3.94, p < .001); intelligent (*Z* = 2.89, p = .003); outgoing (*Z* = 2.52, p = .011); daring (*Z* = 2.69, p = .007); intelligent, as compared to unintelligent (*Z* = 2.33, p = .019); bold (*Z* = 2.17, p = .030); calm (*Z* = 2.20, p = .027); pleasant (*Z* = 2.94, p = .003);

and relaxed (Z = 2.09, p = .036). In regard to perceptions of competence, significant correlation differences were found related to being sociable (Z = 3.27, p = .001), extroverted (Z = 2.39, p = .016), outgoing (Z = 2.68, p = .007), daring (Z = 3.59, p < .001), and bold (Z = 2.93, p = .003). For perceptions of the variability of stuttering, significant differences in correlations were found with the trait of being composed (Z = -2.10, p = .035). In regard to

discussing stuttering openly, significant differences were found between known and average PWS ratings of being social (Z = 2.78, p = .005), open (Z = 2.49, p = .012), and relaxed (Z = 2.88, p = .004). In other words, these perceptions related to coping with stuttering were found to be stronger in association to a known PWS and did not relate to perceptions of people who stutter in general.

Table 5. Correlations for Semantic Differential Scale Items and Coping With Stuttering for Known and Average PWS

Semantic Differential Scale Item	This person is a good communicator.		This person is a competent speaker.		This person stutters more frequently in some situations than others.		This person appeared to be comfortable in discussing his/her stuttering.	
	Known	AVG	Known	AVG	Known	AVG	Known	AVG
Sociable-unsociable	.483*	.070	.427*	.077	-.004	-.014	.253*	-.063
Trustworthy-untrustworthy	.371*	.221	.255*	.195	.050	.007	.161	.208
Passive-aggressive	.118	.084	.181	-.062	-.219	-.181	-.070	.030
Secure-insecure	.296*	.093	.258*	.063	-.149	-.159	.073	-.046
Introverted-extroverted	.262*	.148	.268*	-.002	-.116	-.118	.113	-.042
Intelligent-dull	.470*	.173	.341*	.228	-.100	-.120	.244	.040
Withdrawn-outgoing	.374*	.101	.347*	.051	-.041	-.145	.196	.001
Hesitant-daring	.333*	.035	.353*	-.047	-.161	-.077	.166	.072
Intelligent-unintelligent	.434*	.192	.341*	.227	-.028	-.077	.163	.083
Composed-anxious	.169	.120	.243	.145	-.278*	-.042	.130	-.079
Sincere-insincere	.264*	.126	.187	.142	.175	.004	.218	.063
Likeable-unlikable	.221	.058	.073	.101	.135	.008	.203	.009
Shy-bold	.329*	.090	.299*	-.031	-.067	-.128	.156	.024
Calm-nervous	.270*	.022	.193	.043	-.284*	-.128	.140	.034
Pleasant-unpleasant	.257*	-.077	.045	.079	.069	-.018	.117	-.082
Reliable-unreliable	.079	.153	.062	.150	.169	.023	-.023	.043
Employable-unemployable	.195	.146	.135	.208	.029	-.014	.096	.037

Fearless-fearful	.257*	.118	.220	.027	-.134	.163	.090	.007
Friendly-unfriendly	.286*	.078	.163	.178	.179	-.080	.212	.052
Open-guarded	.283*	.084	.204	-.056	-.062	.074	.296*	.017
Competent-incompetent	.191	.106	.315*	.174	-.023	.078	.194	.073
Excited-frustrated	.337*	.184	.237	.148	.003	-.160	.217	.006
Sensitive-insensitive	.083	-.005	.004	-.020	-.032	.127	.230	.041
Self conscious-self assured	.350*	.154	.327*	.158	-.279*	-.170	.117	.109
Relaxed-tense	.415*	.197	.369*	.185	-.133	-.207	.312*	-.011

N = 152, *p < .002

Impact of stuttering

Known PWS. Table 6 displays the results of the correlation analysis between semantic differential scale items for the known and average PWS and impact of stuttering survey items. Many significant negative correlations were shared among the perceptions of how stuttering impacted the known person educationally, occupationally, and socially. The more participants believed the known PWS was impacted in these areas, the more likely they perceived them as unsociable, insecure, dull, withdrawn, hesitant, fearful, self-conscious, and tense. All three questions produced a number of significant negative correlations with semantic differential scale items, with social impact revealing 11, occupational revealing 11, and educational revealing 12. Significant positive correlations were observed between responses in regard to stuttering not having an effect and traits of being social, secure, outgoing, daring, bold, fearless, and self-assured. Overall, the higher participants rated that stuttering had an impact on the person socially, educationally, or occupationally, the more likely the respondents favoured the negative traits.

Average PWS. Numerous significant negative correlations were observed for this category for semantic differential scale items for the average PWS. In other words, the more participants perceived that stuttering had an impact on the known PWS, the more negative their attitudes were toward an average PWS. Ratings for participant responses in regard to the social impact of stuttering for the known person were related to responses to the traits of untrustworthy, dull, unreliable, and unfriendly. There were significant negative correlations

noted for perceptions of how stuttering affected the known person educationally with untrustworthy and unintelligent. In addition, responses for stuttering affecting the known PWS occupationally were associated with ratings on the semantic differential scale item for unintelligent. No significant correlations were noted between responses of stuttering not having an effect on the known person and semantic differential items for the average PWS.

Correlation comparisons. For stuttering affecting the known person socially, significant differences were found in correlations with traits of being social (Z = -3.35, p = .0008), secure (Z = -2.27, p = .023), outgoing (Z = -2.95, p = .003), daring (Z = -4.4, p < .001), bold (Z = -3.94, p < .001), fearless (Z = -2.73, p = .006), self-assured (Z = -3.36, p < .001), and relaxed (Z = -2.15, p = .031). For affecting the person educationally, significant differences were found related to being secure (Z = -2.35 p = .018), intelligent (Z = -2.01, p = .044), outgoing (Z = -1.97, p = .048), daring (Z = -2.01, p = .044), and self-assured (Z = -2.28, p = .022). In regard to occupational affect, significant differences were found for being social (Z = -3.55, p < .001), secure (Z = -3.02, p = .002), daring (Z = -2.92, p = .003), bold (Z = -2.50, p = .012), fearless (Z = -2.79, p = .005), and self-assured (Z = -3.09, p = .002). Finally, for the question of stuttering not affecting the known person, significant differences were found in correlations for the traits of being social (Z = 2.99, p = .002), secure (Z = 2.30, p = .021), and daring (Z = 2.97, p = .003). In summary, these associations between how stuttering impacts a person's life were found to be significantly stronger for the known PWS compared to an average PWS, revealing that these ratings affected a known PWS, yet did not translate to associations of an average PWS.

Table 6. Correlations for Semantic Differential Scale Items and Impact of Stuttering for Known and Average PWS

Semantic Differential Scale Item	I feel that stuttering has affected this person socially.		I feel that stuttering has affected this person educationally.		I feel that stuttering has affected this person occupationally.		I feel that stuttering has not affected this person in any way.	
	Known	AVG	Known	AVG	Known	AVG	Known	AVG
Sociable-unsociable	-.368*	.002	-.306*	-.096	-.325*	.074	.357*	.027
Trustworthy-untrustworthy	-.183	-.270*	-.275*	-.280*	-.240	-.212	.126	.189
Passive-aggressive	-.226	-.108	-.010	-.102	-.096	.016	.199	.116
Secure-insecure	-.330*	-.080	-.355*	-.098	-.337*	-.001	.374*	.126
Introverted-extroverted	-.191	-.048	-.062	-.082	-.093	-.087	.112	.124
Intelligent-dull	-.265*	-.288*	-.424*	-.216	-.275*	-.205	.208	.209
Withdrawn-outgoing	-.400*	-.082	-.354*	-.141	-.269*	-.087	.338*	.128
Hesitant-daring	-.456*	.017	-.334*	-.114	-.366*	-.045	.401*	.080
Intelligent-unintelligent	-.225	-.247	-.417*	-.306*	-.361*	-.287*	.215	.232
Composed-anxious	-.111	-.096	-.048	-.103	-.107	-.084	.088	.089
Sincere-insincere	-.105	-.133	-.226	-.143	-.243	-.138	.012	.116
Likeable-unlikable	-.003	-.194	-.126	-.092	-.170	-.180	-.036	.077
Shy-bold	-.457*	-.037	-.245	-.070	-.288*	-.007	.322*	.124
Calm-nervous	-.283*	-.103	-.281*	-.118	-.250	.009	.230	.087
Pleasant-unpleasant	-.114	-.138	-.170	-.038	-.139	-.034	.038	-.059
Reliable-unreliable	-.043	-.258*	-.222	-.196	-.116	-.177	-.003	.118
Employable-unemployable	-.154	-.190	-.338*	-.179	-.279*	-.235	.073	.112
Fearless-fearful	-.371*	-.073	-.303*	-.146	-.304*	.009	.257*	.122
Friendly-unfriendly	-.116	-.266*	-.122	-.143	-.135	-.204	.003	.212
Open-guarded	-.113	.091	-.223	-.033	-.114	.002	.131	.025
Competent-incompetent	-.100	-.072	-.185	-.162	-.223	-.129	.033	.047
Excited-frustrated	-.267*	-.054	-.138	-.081	-.133	-.054	.122	.125
Sensitive-insensitive	-.057	.050	-.183	.050	-.169	-.005	.007	-.213
Self conscious-self assured	-.428*	-.068	-.302*	-.048	-.357*	-.016	.361*	.157
Relaxed-tense	-.313*	-.075	-.308*	-.140	-.327*	-.161	.189	.173

N = 152, *p < .002

Discussion

The present study explored the correlation between perceptions of a known PWS and attitudes toward stuttering for the known and an average PWS. These perceptions of a known PWS were in regard to the quality of relationship with the known person, how the person managed their stuttering, and the impact stuttering had on their life. Results from this study provide further clarification regarding how familiarity with a PWS can have the potential to improve attitudes toward stuttering.

The first interesting finding from this study was the importance of experiences and contact with a PWS. Positive attitudes toward the known PWS were related to how important participants viewed the relationship, how well they knew them, and whether they had a good relationship with this person. More favourable perceptions of the relationship with a known PWS were associated with high ratings of an average PWS as being trustworthy and reliable. These findings are consistent with other studies that found that familiarity had a positive effect on attitudes toward stuttering (Klassen, 2001, 2002; Schlagheck et al., 2009). A closer look at the methodology of one of the Klassen (2001) studies helps to understand this similarity in the findings. The participants in that study were individuals who were identified as having a close relationship with a PWS. The closeness, or quality, of this relationship may help to explain why familiarity had a positive effect on attitudes. Our findings also support that closeness is an important aspect of familiarity. Simply knowing a PWS may not improve attitudes toward stuttering; however, the association between familiarity and attitudes toward stuttering appears to be stronger if the known person is important to the respondent. The number and type of questions asked related to familiarity may also explain the similarity in other studies that found similar results. For example, our study asked a number of questions regarding perceptions toward a known PWS to capture the complexity of familiarity. In another study that found familiarity to have a positive effect on attitudes, Schlagheck et al. analyzed responses of 154 individuals who did not stutter using open- and closed-ended questions to describe the person they knew who stuttered. The use of open-ended questions may have allowed Schlagheck et al.'s participants the opportunity to expand on their perceptions of the person they knew. The factors of closeness with a known PWS, and asking more questions about the nature of familiarity, may help to explain the discrepancy with other studies that found familiarity to have no effect on attitudes (Boyle et al., 2009; Doody et al., 1993; Gabel et al., 2004; Hughes et al., 2010).

Perceptions of how the known PWS coped with stuttering were also a significant factor related to positive traits for the known PWS. It is important to discuss findings related to coping as it relates to stuttering severity and avoidance behaviours. It is possible that participants demonstrated wide variability related to how they defined and perceived effective coping with stuttering. Participants may have perceived the known person more positively because they were demonstrating a mild stuttering severity, which could be related to the known person demonstrating avoidance behaviours, thus providing the perception of a more fluent speaker. Participants may have been using the amount of stuttering as a way to judge whether the person was effectively communicating or managing their stuttering. This discussion point also relates to prior research that has found as stuttering frequency increases, listeners demonstrate more negative evaluations of a person's speech (Panico, Healey, Brouwer, & Susca, 2005). Avoidances related to stuttering moments is a real possibility and could have been perceived as effective coping with stuttering. Nevertheless, the more participants believed the known person positively coped with their stuttering, the more positive their attitudes were toward the known PWS.

The idea that simply decreasing stuttering moments might translate to increased perceptions of positive coping and managing stuttering brings up the topic of how people who stutter may perceive role models who stutter. Hughes, Gabel, Goberman, and Hughes (2011) discussed role models for people who stutter as part of their qualitative study of adults who stutter. The participants in this study reported that when they were younger, they wanted role models to assist them in managing their stuttering. The use of role models who are dealing with stuttering in a positive way could have implications not only for public attitudes, but also to help individuals cope effectively with stuttering. Reitzes (2006) also noted the importance of providing mentors who stutter to school-age children who stutter in his description of how an older child helped to mentor a younger child who stuttered in a school setting. Furthermore, Reitzes provided a review of the connection between mentorship and coping with stuttering. Our findings related to coping could also be applied to other perceptual studies related to speech therapy. For instance, Gabel (2006) found that individuals perceived a PWS more positively if the person was involved in speech therapy and they demonstrated a more mild stuttering severity. The participants in Gabel's study may have believed that speech therapy was improving the person's ability to cope and manage their stuttering. If people who do not stutter believe that

speech therapy improves how a PWS copes with their stuttering, this begs the question, "Do listeners believe that a mild stuttering severity is related to effective coping with stuttering?" More research is needed to better understand perceptions of how individuals cope with stuttering.

Perceptions of the impact of stuttering on the known PWS were also an important factor. Perceiving the known PWS as not being impacted by their stuttering was correlated with positive attitudes toward the known and average PWS. Similar to perceptions of coping with stuttering, exposing the public to individuals who have decreased the negative impact of stuttering on their life could improve public awareness and attitudes toward stuttering. This is where people in role model positions (e.g., professional athletes, actors, and other celebrities) can play an important part in helping the general public, along with people who stutter, improve their perceptions toward stuttering.

Correlation comparisons between the known and average PWS indicated stronger associations with certain survey and semantic differential scale items for the known compared to the average PWS. In general, knowing a PWS well, perceiving they are positively coping with stuttering, and believing their stuttering does not negatively impact their life was related to positive attitudes toward this particular person. Yet, these same perceptions did not translate to people who stutter in general. One possible explanation of this finding may be related to participants viewing the known person based upon that person's unique, individual characteristics, as well their personal experience with the known PWS, and not basing their perceptions on one characteristic of the person. For example, the personal experiences with the known PWS may have involved participants learning that they are a supportive friend, fun to be around, and a good person. These types of experiences may have contributed to the stronger correlations with the known compared to an average PWS.

Limitations

There are several important limitations to this study. First, the research design utilized a convenience sample, which impacts how the results can be generalized to a larger population. Also, this study used a quantitative design to explore familiarity and perceptions of a known PWS. Thus, participants were not provided with the opportunity to elaborate on responses due to all questions being in a closed-ended format. Qualitative or mixed methods designs could potentially provide in-depth

knowledge regarding participant responses, thus adding to the richness of the topic. Finally, the correlation analysis conducted is unable to determine whether familiarity with a known PWS causes attitudes toward stuttering to improve; however, it does provide insights into the relationship that exists.

Another limitation is in respect to the decision to use the word "average" in the survey protocol. When participants were reflecting on an average PWS, they may have mentally visualized someone who was anywhere along the spectrum of stuttering severity. This same mental representation might have been applied to an average PWS. Therefore, using the word "average" may have skewed the results in that participants may have responded to questions with this mental representation related to stuttering severity. In retrospect, asking participants to provide some descriptions of how they perceived "average" might have helped control this term more. Future studies might provide a description of the stuttering severity rating to help participants mentally represent a consistent hypothetical PWS.

In addition, another limitation is that there may have been confusion regarding whether participants really knew someone who stutters. The level of familiarity with the known PWS, along with participants' knowledge about stuttering, could have influenced their responses. Furthermore, it could be suggested that participants may not really have known a PWS; rather, they may have known someone who was highly disfluent or demonstrated some other communication disorder. Again, having participants describe the person they know who stutters and some of their behaviours might clarify any confusion and address this potential limitation.

Despite these limitations, the current findings have implications for people who stutter. For example, encouraging a person who stutters to have quality interactions with others, where they get to know other people in a meaningful way and view the relationship as good and important, could possibly help to improve the attitudes of people who do not stutter toward stuttering. Furthermore, we can speculate that in the context of this meaningful relationship, others may become more familiar with how stuttering impacts them and their coping style with stuttering. With these quality relationships, people who stutter may then be able share, and others then learn, that stuttering is a piece of who they are and may not have a negative impact in areas of their life such as their occupation, educational experiences, and social life.

Future research

It is recommended that future studies explore familiarity with stuttering using mixed methods designs and qualitative approaches. The use of these methodologies may allow future participants to elaborate on their responses. It is also suggested that other researchers examine the extent to which other populations, such as employers and individuals in the helping professions, report familiarity levels with people who stutter to determine if this is a contributing factor to attitudes toward stuttering in general. Finally, the extent to which stuttering severity is factored into the question of familiarity has yet to be determined. The additional testing of these variables could provide further information to explain the complexity of knowing a PWS and its impact on attitudes toward stuttering.

Conclusions

In summary, our findings help to shed light on the complexities of familiarity and its relationship with attitudes toward stuttering. We examined other intricacies of familiarity, which involved perceptions of the quality of the relationship, impact of stuttering, and coping ability of a known PWS, and the relationship of these factors to attitudes. Our results support the idea that familiarity with a known PWS is associated with improved attitudes toward this particular person. Although more significant associations were found between familiarity and attitudes for the known PWS, familiarity was also found to be related to more favourable attitudes toward an average PWS on certain traits.

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