



The Effects of Pseudostuttering on Self-Acceptance and Stuttering Frequency



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Introduction

The importance of focusing on attitudinal and emotional factors of stuttering has increasingly been included as part of stuttering therapy for adult clients. Such treatment may include discussion of self-acceptance, self-disclosure, and engagement in pseudostuttering as a desensitization technique. In spite of these practices, there is limited empirical research on the psychological effect of pseudostuttering as "passive disclosure" by people who stutter (PWS). Furthermore, while there are numerous studies reporting the impacts of pseudostuttering tasks assigned to SLP students (Klinger, 1987; Rami, et al., 2003; Klein et al., 2006; Reitzes, 2007), there is a paucity of studies on Pseudostuttering as a therapeutic desensitization tool reported by PWS.

Feelings/Attitudes

- Need for cognitive mediation in positive self-perception as a PWS as well as others' negative responses toward the PWS (Corcoran & Stewart, 1998; Leith, et al., 1993; Dayalu & Kalinowski, 2002).
- Association of speaking with anxiety and its effects on inducing disfluencies (Berntson, et al., 1991; Alm, 2004; Gabel, et al., 2002), and anticipatory anxiety increasing disfluencies as a defense mechanism (Iwata & LeDoux, 1988; Alm, 2004).
- Eliminate emotional responses (i.e., feelings of embarrassment, shame, and/or guilt) that are conditioned when PWS is disfluent (Reitzes, 2005; Fucci, et al., 1998; Van Riper, 1973).
- Positive personality traits attributed to those who acknowledged and disclosed themselves as a PWS (Healey et al., 2007; Collins & Blood, 1990).
- Listeners' perceptions toward PWS regardless of whether or not they disclosed themselves as a PWS (Healey, et al., 2007).

Pseudostuttering

- Pseudostuttering as a "stuttering inhibitor" (Saltuklaroglu, et al., 2004).
 - Mirror neuron effects: link between speech perception and production as an inherited human faculty (Saltuklaroglu, et al., 2004; Kalinowski & Saltuklaroglu, 2003; Kalinowski, et al., 2000).
 - Significant reduction in disfluencies during choral reading, singing, and both perceiving and producing pseudostuttering.
- Listeners are unlikely to perceive the difference between true stuttering and pseudostuttering (Fucci, et al., 1998; Starkweather, 1978).

Research Questions

- How does pseudostuttering change the PWS feelings/attitudes and acceptance of their disfluencies?
- Is there a relationship between self-acceptance as a PWS and what effect does this have on frequency and type of disfluencies?
- What effect does previous treatment have on the PWS acceptance with utilizing pseudostuttering in treatment?

Pseudostuttering

- Used as a desensitization technique via advertisement or self-disclosure of a PWS (Van Riper, 1973; Guitar, 2006; Reitzes, 2005).
- Stuttering on purpose toward the beginning of a conversation – "Making unpredictable predictable" (Reitzes, 2005).

Benefits of Pseudostuttering:

- Indirect self-disclosure (Van Riper, 1973).
- Enabling PWS to (Reitzes, 2005):
 - move forward through moments of stuttering
 - improve listening skills: enabling PWS to attend to conversations
 - stutter without shame: "If I am comfortable with it [stuttering] other people tend to be as well."
- Consequently, increasing self-acceptance as a PWS, leading to positive self-perceptions.

Teaching Pseudostuttering:

- Tell client to add a schwa sound at the first phoneme of the word and simply repeat it (Saltuklaroglu et al., 2004). (e.g.), "Ma- ma -ma -my name is ja- ja- ja- Yoko."
- Make it obvious [longer duration of each syllable] to let the listener know and prepare how to react to such disfluent speech (Reitzes, 2005; Klein et al., 2006).
- Maintain eye contact during the moment of pseudostuttering, demonstrating positive self-perceptions and sincerity toward listeners (Van Riper, 1973; Reitzes, 2005).

Method

Adapted from Saltuklaroglu et al's (2004) study. Conducted over two-week period, requiring three meetings with one week in between, using the pre versus post treatment design. Three samples were obtained across 4 conditions from the Experimental Group and 2 conditions from the Control Group.

Participants:

4 adult males who stutter (age range between 22-31 years old), with no experience with and/or little knowledge about pseudostuttering.

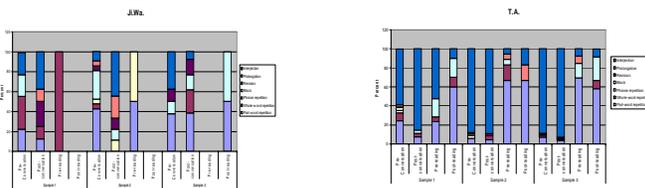
Control Group	Experiment Group
B.M. 31 year-old bilingual Chinese male; limited exposure to fluency shaping therapy	Ji.Wa. 22 year-old bilingual Chinese male; 6 mos. of stuttering modification therapy with good success; a two-month lag between treatment and taking part in study.
A.W. 35 year-old American male (dropped out of the study after the 1 st week)	T.A. 29 year-old bilingual Japanese male; no previous exposure to therapy

Presentation of the stimuli:

- DVD presented which exhibited person pseudostuttering while reading. Participants were asked to watch silently.
- Following the viewing of the DVD the subjects were instructed to verbally imitate the pseudostuttering produced by the speaker on the DV while simultaneously following a written transcript of the DVD
- Discussion with the subjects regarding the purpose and benefits of pseudostuttering.
- Practice utilizing pseudostuttering with the first author during conversation.
- Pseudostuttering task in public followed by the first author's model (i.e., asking directions to a stranger).

Experimental Conditions/Stimuli	Data Collection		Data Analysis
	Experimental Group	Control Group	
A. Conversation: • First meeting (Week one): General interview and Overall Assessment of the Speaker's Experience of Stuttering (OASES) (Yanus & Quesel, 2006), Locus of Control of Behavior (LCB) (Craig, et al., 1984) and Denial Questionnaires (Leith, et al., 1993) filled-out • Second & third meeting (Week two) • Range of the number of syllables spoken: 106-508; M=393	Condition #1: Pre-pseudostuttering	Condition #1	A) Disfluency Indices (DI) 1. Frequency 2. Type 3. Duration B) Effects on DI 1. Pseudostuttering (P) 2. Pseudostuttering that became True Stuttering (P → T) 3. True Stuttering influenced by Pseudostuttering (P → T)
B. Reading: • Article or text • Range of the number of syllables spoken: 93-614; M=408	Condition #2: Pre-pseudostuttering	Condition #2	
C. Conversation: • Same as above	Condition #3: Post-pseudostuttering (given a choice to use pseudostuttering)	N/A	
D. Reading: • Same as above	Condition #4: Post-pseudostuttering (Participants were given a choice to utilize Pseudostuttering)	N/A	
E. Telephone support: • Participants were required to have a short phone conversation with the first author every other day. This was aimed to provide them with opportunities to practice their speech.	Participants utilized Pseudostuttering	Participants were asked to utilize their "most comfortable" speaking [including any previous therapeutic techniques].	

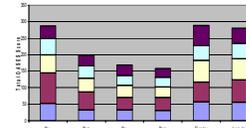
Results



Control Group	Experiment Group
B.M. • 2.9% decrease in overall DI • Decrease in blocks; revisions; interjections and whole word repetitions • Mild decrease in duration [mean of three stuttering events (1.3s → 0.5s = -0.8s)]	Ji.Wa. • Never utilized Pseudostuttering across conditions with overall < 0.5% decrease in DI • Elimination of prolongations and overall decrease in whole-word repetitions. • No change in duration of disfluencies (0.9s) T.A. • 6.8% decrease in overall DI • Decrease in all types except interjections. • 4.4s → 2.8s = -1.6s

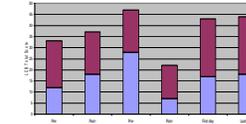
OASES

Measures general perspectives about stuttering, affective, behavioral and cognitive reactions to stuttering, functional communication difficulties, and impact of stuttering on the speaker's quality of life.



LCB

Measures the prevalence of reliance in post-treatment. Decrease in less than 2% in LCB scores in post-treatment indicates higher prevalence of reliance. Goal is shift from external control to internal control.



Denial Questionnaire: 26 Items (5 scales)	T.A.	J.Wa.	B.M.
Ex 1. "I am not afraid of my stuttering."	Never → Sometimes (change in 2 scales)	Often → Often	Sometimes → Sometimes
Ex 2. "I think that stuttering is an illness, like a disease or ailment."	Never → Seldom	Sometimes → Sometimes	Often → Often
Ex 3. "I am ashamed of my stuttering."	Never → Never	Never → Sometimes (change in 2 scales)	Seldom → Sometimes

OASES Questionnaire: 100 Items (5 scales)	T.A.	J.Wa.	B.M.
Ex 1. "When you think about your stuttering, how often do you feel ashamed?"	Rarely → Often (change in 2 scales)	Rarely → Rarely	Sometimes → Sometimes
Ex 2. "When you think about your stuttering how often do you feel embarrassed?"	Rarely → Often (change in 2 scales)	Rarely → Rarely	Sometimes → Sometimes
Ex 3. "How difficult is it for you to communicate using the telephone at home?"	Sometimes Difficult → Not at all difficult (change in 1 scale)	Not at all difficult → Not at all difficult	Not very difficult → Not very difficult

LCB Questionnaire: 17 Items (5 scales)	T.A.	J.Wa.	B.M.
Ex 1. "When I make plans, I am almost certain that I can make them work."	GA → GA (change in 2 scales)	GA → GA	SWD → SWD
Ex 2. "Achieving a success is a matter of hard work, but has little or nothing to do with it."	GA → GA (change in 2 scales)	GA → GA	SWA → GA
Ex 3. "A great deal of what happens to me is probably due to a matter of chance."	SWA → SWA	SWA → SD	SWD → SWA

Overview of Questionnaires

- Ji.Wa. scored mild-to-moderate [Pre] and mild [Post] on OASES Sect IV. Quality of Life, indicating low negative impact of stuttering on the quality of his life, coupled with Denial and LCB questionnaire results demonstrated increased awareness of his disfluencies and a significant shift toward Internal Control (nearly 50%), showing more personal control over his own behaviors, which appeared to have resulted in overall low DI across conditions and samples.
- T.A. demonstrated remarkable change on all aspects of OASES, especially on Sect I: General Information, scoring severe [Pre] and moderate [Post], indicating low negative impact of stuttering on his overall experiences; coupled with Denial and LCB questionnaire results demonstrated increased self-awareness as a PWS, and stating, "I'm more afraid, ashamed, and embarrassed of stuttering." Overall, DI was significantly decreased by 6.8% [Pre → Post].
- B.M. scored moderate-to-severe [Pre] and moderate [Post] on OASES Sect IV: Quality of Life, indicating low negative impact of stuttering on the quality of his life, no significant change in Denial and LCB questionnaire results. Overall, DI decreased by 0.8%.

Discussion

Limitations of the Study:

- Small sample size
- Effects of the first author being a PWS and non-native of the English language on the single-rater judgment and interactions with the foreign-born participants

Implications:

- How does pseudostuttering change the PWS feelings/attitudes and acceptance of their disfluencies?
 - In our participants utilizing Pseudostuttering appeared to increase their positive feelings/attitudes. T.A. demonstrated the greatest change in his awareness of stuttering across conditions and samples, which may be due to no prior experience in therapy. Ji.Wa. demonstrated a significant positive change in feelings of his ability to take control of his speech, indicating self-acceptance as a PWS.
 - May be a useful therapeutic method early on in treatment, and increased exposure in the classroom may help SLP students to be more effective in delivering therapy. Perhaps, early use with children could also have impact on improving feelings/attitudes at a younger age (Murphy et al., 2007).

- Is there a relationship between self-acceptance as a PWS, and what effect does this have on frequency and type of disfluencies?
 - Effect of pseudostuttering on freezing (i.e., "What is going on with me? — I am stuttering right now") during the moment of stuttering and taking action (T → P) to manage it. In T.A.'s case: an average decrease of 0.72% during conversation and 4.0% during reading. Although T.A. commented that he would not have come for stuttering therapy had he not been referred by his program instructor, he demonstrated the most significant change of all participants in DI and feelings/attitudes.
 - Consistent with Saltuklaroglu et al's (2004) finding of a reduction in post- pseudostuttering tasks.
 - All subjects demonstrated an overall decrease in duration of disfluency types and in their total % of types.

- What effect does previous treatment have on the PWS acceptance with utilizing pseudostuttering in treatment?
 - Similar communication apprehension found in PWS and individuals with foreign accents (Neiman & Rubin, 1991), indicating the impact of self-awareness of one's communicative abilities as well as others' reactions. T.A. commented that "Pseudostuttering" "Is easy to use in Japanese and English." This may demonstrate that Pseudostuttering is easier to apply across languages than the more commonly utilized fluency enhancing techniques.
 - Furthermore, our participants' courageous attitude and successful experience with the Pseudostuttering task in public appears to contribute to the increased sense of self-awareness and self-perception.

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Conclusion:

The biggest impact of Pseudostuttering on PWS observed in this study appears to be the confrontation with "one's own reactions" to his or her stuttering. Through this [confrontation — in the moment of stuttering], PWS are able to gain increased control of their speech in difficult speaking situations. Consequently, Pseudostuttering appears to enhance the sense of self-awareness, which may be the precursor to self-acceptance and positive self-perception, regardless of their level of disfluency. This may in fact be the ultimate goal for PWS: "I used to feel good only when I was fluent. By using voluntary stuttering I found that I am also a good person when I stutter" (Reitzes, 2005).

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