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Expressive Writing Therapy for Adults Who Stutter: A Literature Review And Proposal For Clinical Application

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Report

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Arts

The University of Texas at Austin

May 2017

Dedication

I dedicate this report to the Michael and Tami Lang Stuttering Institute for all of the wonderful work they do.

Acknowledgements

I would like to acknowledge Courtney Byrd and Elizabeth Hampton for their careful readings and support throughout this process. I hope that some part of this report may be useful to you in the future.

Abstract

Expressive Writing Therapy for Adults Who Stutter: A Literature Review And Proposal For Clinical Application

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The current psychotherapeutic literature on expressive writing therapy offers an evidence-based template for how speech-language pathologists might adapt the technique to treat adults who stutter. Expressive writing therapy builds on the existing clinical tradition of journaling or writing during therapy sessions for people who stutter and has the following advantages: a) ease of administration b) economical dosage c) measurable outcomes. Speech-language pathologists can follow the general guidelines laid out in expressive writing therapy trials while adapting the intervention for adults who stutter in clinical practice. No research has tested the effectiveness of this technique with adults who stutter, but existing research supports its use in this population. This report summarizes the findings of research trials of expressive writing therapy and suggests preliminary guidelines for its application with adults who stutter.

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INTRODUCTION

Stuttering is a complex and dynamic fluency disorder with affective, behavioral, and cognitive correlates (Yaruss & Quesal, 2006). Treating this disorder effectively requires speech-language pathologists (SLPs) take a holistic approach to therapy that addresses both speech as well as the emotions and attitudes of people who stutter in the context of their home, school, and work lives. Adults who stutter (AWS) may face negative stereotypes from employers who doubt their capabilities and from peers who assume they lack confidence (MacKinnon, Hall, & MacIntyre, 2007). By the time a person who stutters (PWS) reaches adulthood, they may have developed positive and negative coping mechanisms in response to a lifetime of navigating stereotype threat. An adult who stutters may avoid speaking opportunities, not be selected for a promotion, or worse, s/he may choose not to apply for the promotion in the first place (Plexico Manning & Levitt, 2009).

Over the past two decades, SLPs have begun to integrate more traditional fluency goals with goals that address socio-emotional well-being of PWS (Blumgart et. al., 2012). These can include educational goals and desensitization goals that seek to give clients information and guidance, to help clients understand their condition, to foster self-awareness, and to empower clients to educate others. The theories underpinning many of these emotional wellness goals have their roots in the field of psychology and draw on approaches, such as cognitive behavioral therapy (CBT) and mindfulness (Beilby, Byrnes & Yaruss, 2012; Menzies et. al., 2008; Boyle, 2011).

Research suggests that helping acutely and chronically distressed clients to shape their experiences into a coherent narrative of change might augment as well as better cement positive improvements derived from therapy (Pennebaker, 1997; DiLollo, Neimeyer, & Manning, 2002). People who seek therapy for disfluencies may have internalized the negative stereotypes encountered in society and often have deep-seated insecurities and anxiety related to their communication abilities (MacKinnon, Hall, & MacIntyre, 2007; Iverach & Rapee, 2014). Integrating structured narrative writing exercises into existing therapy regimes for people who stutter may provide a record of emotional change over time, and when paired with complementary therapy techniques, it may be a driver of durable changes in self-perception.

Reading and discussing personal stuttering narratives in therapy groups has been proven to have a positive impact on the communication attitudes of adults who stutter (Gerlach & Subramanian, 2016). However, to date, to the present author's knowledge, there are no published explorations of the potential benefits of narrative writing therapy for this population. The primary purpose of the present report is to explore the literature on expressive writing therapy and discuss the evidence for adapting expressive writing prompts that can help clients who stutter to connect their past, present, and future experiences through the creation of a written personal narrative. The secondary purpose is to suggest how expressive writing therapy might be embedded within a larger treatment plan and in concert with other psychotherapeutic techniques.

MENTAL HEALTH RISKS AND QUALITY OF LIFE

Fear of stuttering and the negative judgement of others during social and professional activities impacts the quality of life for AWS and puts them at increased risk for mental illness, impaired social functioning, impaired emotional functioning, and impaired overall health (Iverach & Rapee, 2014; Tran, Blumgart, & Craig, 2011; Blomgren, 2013; Klompas & Ross, 2004; Brosch & Pirsig, 2001). The social anxiety experienced by adults who stutter typically extends across many years of negative experiences centered on their disfluent speech and the adverse reactions of others. Preschool age children who stutter show negative emotions associated with speaking, and these early emotions continue to impact people who stutter throughout their school years and into their adult lives (Jones, Conture, & Walden, 2014; Gunn et. al., 2014; Bricker-Katz, Lincoln & McCabe, 2009).

This fear of negative public opinion is fed by the portrayal of stuttering in the popular media and by the pervasive lack of general knowledge and awareness of what stuttering is and why people experience disfluent speech (Johnson, 2008; Gabel, Brackenbury & Irani, 2010). Many people assume that PWS are anxious, guarded, of lower intelligence, and less competent than the general population (Johnson, 2008; St. Louis, 2011). These stereotypes almost guarantee that a person who stutters will occasionally encounter confirmation of their fears when people respond to their stuttering in a negative way (Menzies et. al., 2008).

This frequent stress and anxiety may increase the likelihood and severity of a person's stuttering episodes, which may in turn increase anxiety or focus anxiety around trigger situations, such as asking for help from a salesperson or speaking on the phone

(Iverach et. al., 2011). This emotional impact of stuttering may also impact behavior, leading to PWS actually performing in a way that fulfill negative stereotypes, such as avoiding public conversation and avoiding high profile careers (Klein & Hood, 2003; MacKinnon, Hall, & MacIntyre, 2007).

Common coping strategies for adults who stutter involve some measure of avoidance or escape from situations in which they perceive themselves likely to stutter (Plexico, Manning, & Levitt, 2009; MacKinnon, Hall, & MacIntyre, 2007). Substitution is another avoidance mechanism that involves the substitution of one word or phrase for another a person feels less likely to stutter on. People who stutter may tailor their statements at the word, phrase, and sentence level, such as selecting the shortest item on a menu even if they wanted to order something else.

These coping strategies, while resulting in momentary relief and a false sense of control, can result in social isolation, low self-esteem, and withdrawal, at any age. Plexico, Manning, and Levitt (2009) recorded interviews from nine AWS, and each interviewee indicated that they remain painfully hyper-aware and attentive to managing their stuttering during social interactions in ways that perpetuate anxiety and low self-esteem. When this dynamic becomes entrenched, it may color a PWS's feelings about every communicative interaction and, as a result, may influence present and future behavioral decisions.

Practicing maladaptive coping mechanisms like avoidance and escape may also establish an "I-them" dichotomy. This dichotomy, in which they, the people who stutter, are set apart from fluent individuals, can result in low self-esteem, lowered self-acceptance, and higher cognitive and emotional discomfort (Plexico, Manning & Levitt, 2009). Plexico and colleagues note that while this construct remains in place, people who stutter may not feel satisfied with their own worth as a communicator unless they have

completely remediated their stutter—something that for most AWS, is an unrealistic expectation (Blomgren, 2009).

ADAPTED PSYCHOTHERAPEUTIC INTERVENTIONS FOR ADULTS WHO STUTTER

Speech-language pathologists have sought to break the common negative behavioral patterns of avoidance and escape and to ameliorate associated emotional and cognitive challenges in a variety of ways—often by reaching across disciplines to borrow from psychotherapy. Therapists with stuttering clients typically encourage adult clients to self-disclose, to expose themselves repeatedly to communication situations they find stressful, and to seek camaraderie in group therapy (Blomgren, 2009; Lee & Manning, 2010).

Mindfulness, CBT, and, most recently, bibliotherapy, have each been adapted by SLPs for use in clinical practice (Helgadottir, Menzies & Onslow et. al., 2014; Gerlach & Subramanian, 2015; Boyle, 2011). Although mindfulness, bibliotherapy, and CBT have peer-reviewed data available to guide therapists in clinical application, no published research trials yet exist for adapting Expressive Writing Therapy (EWT) for the stuttering population.[1]

As more data are gathered specific to adapting psychotherapeutic approaches for AWS, it seems likely that one or more of these psychotherapeutic techniques will be shown in future trials to complement and potentially enhance the effects of another. Before going into greater depth on how clinicians might use EWT as an intervention for AWS, it is worth reviewing the state of research on some other psychotherapeutic

[1] The term "Expressive Writing Therapy" (EWT) is used to describe a structured approach to psychotherapeutic writing as a treatment for anxiety, as first described by Pennebaker & Beall 1986. Although some of the existing clinical activities designed for PWS involve writing expressively, these techniques do not derive in theory or practice from the EWT literature (Pennebaker & Beall 1986).

approaches. This review will help to shape the discussion of how and where EWT might fit best within the available treatment options.

Each of the approaches described below seeks to challenge persistent negative narratives and deleterious patterns of thought in clients suffering from anxiety (Menzies et. al., 2009; Boyle, 2011). Cognitive Behavioral Therapy and mindfulness seek to directly reframe and restructure the pervasive negative thoughts and feelings surrounding day to day communication triggers. Bibliotherapy and EWT seek to harness the power of personal and shared narratives to increase exposure to and the normalization of stuttering events while helping clients to reframe their experiences across time (past and present) and in reference to the perspectives of others (fluent and non-fluent speakers).

Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) helps people confront their negative beliefs and fears about people's judgement while also helping them to limit negative and intrusive thoughts (Dobson, 2013). Speech-language pathologists have begun to adapt some CBT for clients who stutter, and early trials have yielded positive results (Menzies et. al., 2009; Helgadottir et al., 2014; Amster & Klein, 2007). In these studies, participants are asked to explore many of their typical intrusive thoughts and feelings regarding communication and to put them to the test.

Participants in Amster and Klein's small uncontrolled study (n= 8) engaged in individualized CBT as well as in CBT-based group therapy once a week to discuss one another's experiences, thoughts, and feelings, so that they could collectively interpret each other's narratives in a more rational way. The authors found that self-reported communication attitude scores increased and were maintained up to fifteen weeks post-

trial. Menzies et. al. (2008) conducted a controlled trial of 30 participants who, at twelve months following a course of adapted CBT, continued to show improvements on global functioning surveys and in social speaking situations. Although 66% of the CBT recipients had received a pre-trial diagnosis of social anxiety, none of them was diagnosed with social anxiety at twelve months post-trial. Conversely, 55% of the control group received a post-trial diagnosis of social anxiety at twelve months.

Earlier research targeting AWS employed pieces of CBT, such as "targeting negative cognitive appraisals", but Menzies et. al. (2008) conducted the first study that actively sought to replicate the entire theoretical and methodological approach to CBT for this population. Subsequent research has shown similar success rates when participants engaged instead with an individualized and self-paced computer course in CBT (Helgadottir et al., 2014).

In this small pilot study (Helgadottir et. al., 2014), two AWS who met the criteria for social anxiety disorder reported feeling more at ease in social situations by the end of their computer-administered CBT. In addition to feeling more at ease in their daily lives, these two participants ceased to meet the diagnosis criteria for social anxiety disorder under the DSM-IV (Helgadottir et. al., 2014). Although these results are preliminary, they highlight the potential benefit of incorporating home-based psychotherapeutic treatments for AWS to maximize the therapy they are able to receive face to face or at all, which is particularly promising for clients who are unable to access affordable care.

Mindfulness

Mindfulness training may help PWS to alleviate anxiety by teaching them to regulate their attention and to become aware of the context surrounding their negative

thoughts (Boyle, 2011; Treanor, 2011). By encouraging self-awareness and acceptance of both positive and negative thoughts, mindfulness training has been shown to reduce negative emotions and to alter cognitive, and behavioral patterns in populations suffering from anxiety (Treanor, 2011).

Psychologists have proposed mindfulness may increase effectiveness of exposure therapy by heightening attention and critical thinking skills that can alert practitioners of their own negative responses (i.e. increased heart rate or a negative thought) during a triggering event in time to moderate their own reactions (Treanor, 2011). Brain imaging studies of individuals practicing mindfulness show an increase of metabolic activity in the frontal cortex concurrent with a decrease in emotional activity in the limbic system, which supports the idea that mindfulness training can in fact heighten attention and enhance cognitive processing (Treanor, 2011; Creswell et al., 2007).

Although no controlled trials have been published yet to test the potential for mindfulness training's effectiveness with PWS, Boyle (2011) provides evidence for why it may work for this population and offers a variety of suggestions for how clinicians might implement the technique in therapy alongside other techniques, such as CBT and other exposure-based therapies, such as teaching clients to become aware of and regulate their breathing (Boyle, 2011). Mindfulness techniques may also be practiced and honed outside of the therapy room, which allows additional time in face-to-face therapy to focus on complimentary interventions.

Bibliotherapy

Bibliotherapy is an evidence-based psychotherapeutic technique to foster cognitive processing skills and emotional regulation in participants faced with challenges,

such as illness or disability (Gerlach & Subramanian, 2015). The goal of therapy is to help clients recast their understanding of what it means to endure illness or disability by reading personal stories of people undergoing similar trials; afterward, the content is either reflected upon in writing or discussed in a group setting. Bibliotherapy is most effective when used as a supplemental technique in concert with other therapeutic approaches and when the clinician is highly knowledgeable about the condition (Gerlach & Subramanian, 2015 & Heath et. al., 2005).

During recent bibliotherapy clinical trials with AWS (n=5), participants showed an increase in self-reported confidence, motivation, and self-acceptance following therapeutic reading and group discussion (Gerlach & Subramanian, 2015). Heath et al. (2005) proposed five core experiential areas of growth resulting from bibliotherapy: universalism, involvement, identification, insight, and catharsis. A deductive analysis of participant responses following group therapy in the trial resulted in two clients experiencing all five experiential areas, two clients experiencing four (involvement, identification, insight, and universalism), and one client experiencing two (involvement and identification) (Gerlach & Subramanian, 2015).

Although no data were gathered on the persistence of these affective and cognitive benefits, and no data were gathered on whether it improved client fluency across time or in different settings, bibliotherapy did have a clear positive impact on the way participants recast their own stuttering stories. During recent trials with AWS, participants showed an increase in confidence, motivation, and self-acceptance following therapeutic reading and group discussion; each of these factors contributes to successful outcomes for PWS (Gerlach & Subramanian, 2015).

Expressive Writing for People Who Stutter

Although clinical practitioners have employed journal writing or writing to simple prompts as an informal part of clinical therapy and assessment for many years (Ramig & Dodge, 2010; Butler & Biagnini, 2000; Reardon-Reeves & Yaruss, 2014), these activities have been primarily designed for children and remain largely uninformed by the extensive body of psychotherapy research on EWT. Journaling activities for PWS may follow a simple prompt, such as "write down any thoughts or feelings you've had today about your speech" or they may be more complex or individualized according the clinician's instincts and knowledge of the client. Speech journals may be used for students to record and track their own progress and knowledge accrued during therapy (Reardon-Reeves & Yaruss, 2014).

Butler and Biagnini (2000) presented a talk on structured journal program they had developed for children who stutter with prompts and subject matter that creates a predictable and orderly format for self-expression. Their expectation of journal entries is that they will increase in complexity as the child continues to progress in educational goals. For instance, the first journal entries have spaces for the child to record the details of a stuttering episode, their thoughts, feelings, reactions, as well as those of their listener(s) (Butler & Biagnini, 2008). Later entries in the authors' system include more complex reflections, such as awareness of physiological reactions and personal goal setting.

Developing a structured approach to therapeutic writing for AWS would benefit both clients and clinicians in several ways. First, evidence suggests that writing and editing personal narratives based on a standard prompt across several sessions can aid

with cognitive processing and confer psychological and physiological benefits for clients suffering from event-related and ongoing anxiety (Frattaroli, 2006). Second, the use of a standard prompt means that the technique can be easily administered by clinicians who may hold varying levels of experience with AWS without impacting its effectiveness. Finally, writing therapy also provides a record of the client's narrative progression, which may be analyzed for lexical characteristics and trends that can show a shift in a client's cognitive processing of past events.

Current therapeutic writing activities for PWS are likely beneficial, but they are not a robust example of evidence-based practice in that they do not pull from the available scientific literature to support clinical interventions (Dollaghan, 2007). The psychotherapeutic approach of EWT as a treatment for anxiety, utilizes as set of common procedures and measurements that can be implemented easily and that would transition well to the clinical population of AWS. Anchoring informal expressive writing exercises to the data-backed structure outlined in more than 200 research trials of EWT can help SLPs to refine their use of writing as a tool to address a discrete set of measurable goals including affective, cognitive, and behavioral correlates of stuttering-related anxiety.

WHAT IS EXPRESSIVE WRITING THERAPY?

Overview

Expressive writing therapy (EWT) is a narrative-centered approach that requires clients to grapple with traumatic or stressful events in their past by putting the experience itself as well as their thoughts and emotions surrounding that experience into words and onto the page or computer screen. Since the first controlled psychotherapeutic trial of expressive writing as therapy in the mid-1980s, more than 200 independent studies and several meta-analyses have been published on the approach (Frattaroli, 2006; Harris, 2006; Smyth, 1998; Seigh, Chung, & Pennebaker, 2011). The success of EWT and its adoption by clinicians in multiple disciplines is likely due to its a) ease of replicability b) economical dosage c) clear outcome measures. It is attractive to researchers, because the methodology allows for large sample sizes, decreased attrition, and because the writing model provides an easily coded record of client language that can be divided into lexical categories, such as subjective, positive, and negative words.

The template for conducting a trial of EWT in most subsequent studies has been modeled from Pennebaker and Beall's initial trial (1986). In this model, researchers randomly assign participants to groups, each of which is asked to write to a proscribed topic on three to five days for 15 to 30 minutes each day (Pennebaker, 1997). Typically, participant groups include one control group, whose members are instructed to write about trivial topics, and at least one other group, whose members are instructed to write on traumatic or emotional experiences. Participants are also typically told that their responses will be anonymous to encourage the uninhibited expression of thoughts, feelings, and experiences (Pennebaker, 1997).

Before starting the initial treatment session and directly after each treatment session, researchers may take data measuring the participants' level of stress or anxiety, including physiological data (i.e. blood pressure) and self-reported measures of mood or emotional state using mental state and social anxiety questionnaires. Later studies tracked different metrics relevant to the population involved, such as the rate of job acquisition or days of missed work (Pennebaker, 1999).

Results from EWT trials following this general template indicate that when participants are asked to write about traumatic events, they show consistent improvements in physiological health, such as increased immune function and faster wound healing, as well as positive behavioral outcomes, such as decreased absenteeism from work and increased student grade point averages relative to controls groups (Koschwanez et. al., 2013; Frattaroli, 2006; Francis & Pennebaker, 1992; Pennebaker, Kiecolt-Glaser, & Glaser, 1988). Meta-analyses on the use of EWT to treat both adults (Frattaroli, 2006) and adolescents (Travagin, Margola, & Revenson, 2015) demonstrate positive emotional outcomes, such as a decrease in overall anxiety and an increase in well-being.

Target Population

Controlled trials of EWT have been conducted on a diverse range of volunteers. The first study was conducted on a group of relatively healthy undergraduates who had randomly experienced a wide range of traumatic past events, ranging from more extreme (i.e. rape or abuse) to less extreme (i.e. homesickness) (Pennebaker & Beall, 1986). Subsequent trials have taken this approach to treating event-related anxiety and applied it to more specific populations who have experienced traumatic or stressful experiences,

ranging from severe (i.e. PTSD) to mild (i.e. transitioning to college) (Chung & Pennebaker, 2008; Smyth, Hockemeyer, & Tulloch, 2008; Gidron, Connolly, & Shalev, 1996). Taken together, these studies support the use of EWT as a technique useful in easing trauma-related anxiety (Frattaroli, 2006), but the intervention may not work equally well for all populations. Those with severe trauma-related anxiety disorders or severe depression, for instance, may experience fewer benefits from the administration of a short course of EWT (three 15 minute sessions) (Gidron, Connolly, & Shalev, 1996, Unterhitzenberger & Rosner, 2014). These cases will receive more discussion in the "Caveats" section below.

Administration

One of the benefits of EWT is ease of administration. During clinical trials, participants are asked to adhere to the treatment program for a few brief writing sessions and agree to provide baseline and follow-up data, including self-reported questionnaires and surveys on their mental health and behavior. In some cases, participants are asked to provide physiological data, such as blood pressure across the course of the study.

The way in which participants are directed to write about traumatic events varies slightly from one study to another. In most studies, researchers issue relatively open-ended prompts to account for the variety of their participants' possible responses. For example, one frequently used template directs participants to write about their deepest thoughts and feelings about the most traumatic experience in their life. The prompt also suggests that they might tie this topic to their relationships with others and to their past, present, and future selves (Pennebaker & Seagal, 1999). Administrators assure the

participants that their writing will remain anonymous to increase the odds that participants will write honestly about their experiences.

Other researchers have varied their prompts to alter the way in which participants conceptualize their accounts. Researchers in one study encouraged their participants to specifically note how trauma had helped them to learn or change in positive ways (Gustella & Dadds, 2008). Participants who focused on positive changes in their lives during therapeutic writing experienced similar psychological benefits to the group given a more open-ended prompt; they also experienced fewer negative physiological indicators of distress during the writing process itself. Still other prompts have more specifically addressed a traumatic life event known or thought to be the cause of a participant's ongoing distress, such as the death or injury of a loved one (Isaki, Brown, Aleman, & Hackstaff, 2015).

Although no consensus exists on how to administer a prompt, research suggests that more effective prompts a) encourage connections between past, present, and future (Pennebaker, 1999) b) encourage a focus on both the events themselves and the feelings surrounding them (Chung & Pennebaker, 2011; Pennebaker & Beall, 1986) c) encourage consideration of both positive and negative outcomes and influences of past trauma (Gustella & Dadds, 2008; Burton & King, 2008).

Dosage

EWT appears to be most effective across different populations at or past a measured threshold of three 15 minute sessions (Frattoli 2006). In other words, increased exposure and time to process ideas through written disclosure over several sessions increases the likelihood of a positive outcome. One study by Chung and Pennebaker

(2008), showed that a single writing session of one hour can be effective in providing comparable mental health benefits for healthy college students undergoing a life transition. The results from this study, however, are unlikely to be replicated for those suffering from more profound or specific anxiety problems (Gidron, Connolly, & Shalev, 1996; Gallagher & Maclachlan, 2002).

Determining the appropriate length and number of EWT sessions in clinical practice may depend on the individual patient's circumstances. Some clients grappling with severe trauma, such as a recent limb amputation or Post-traumatic Stress Disorder (PTSD), might require additional help with cognitive processing and coping skills. Some researchers suggest that multiple sessions of at least half an hour spread out over several weeks may be more appropriate when paired with additional cognitive therapies, such as CBT (Gidron, Connolly, & Shalev, 1996). For other clients, determining the maximum benefit for in-session treatments may depend also on their access to affordable health care. In some cases, it might make sense to administer some structured face-to-face EWT during in person and then encourage additional writing sessions at home. Home sessions can be facilitated by pre-written prompts to help guide a client through the process.

Lexical Analyses

Pennebaker's Linguistic Inquiry and Word Count program (LIWC) was developed to analyze text and divide it into psychologically meaningful categories (i.e. emotion words, pronouns, cognitive mechanism words) (Pennebaker, Booth, & Francis, 2007). An analysis of expressive writing data from 177 participants (healthy undergraduates, unemployed engineers, convicts), showed that an increase in the use of cognitive mechanism words correlated directly with engineers securing employment

more quickly, college students increasing grade point average, decreased health center visits, and an overall decline in self-reported physical symptoms of illness (Pennebaker, Mayne, & Francis, 1997). This pattern holds true across multiple studies with strong correlations between an increased use of cognitive mechanism words (i.e. because, realize, understand) across therapy sessions and positive affective, physiological, and behavioral outcomes (Sieh, Chung, & Pennebaker, 2011).

Other trends correlating with greater benefits from EWT include a gradual decline in the use of negative emotion words between each session and an increase in positive emotion words (Burton & King, 2008; Gustella & Dadds, 2008). Those with the most positive results tend to use a moderate amount of negative emotion words at first when detailing and describing a traumatic event before increasing the positive emotion words later in subsequent narratives (Pennebaker, 1997). Individuals who follow these trends of cognitive and emotion word use tend to see the most benefits, which suggests that cognitive processing and the ability to craft an evolving personal narrative is a positive indicator of improving mental health (Pennebaker, 1999; Gustella & Dadds, 2008).

Why does it work?

Although expressive writing therapy has proven benefits, understanding why and how the approach works remains a matter of debate. Research has shown that it is not the act of writing itself that promotes positive changes, so much as the act of putting a traumatic experience into words. Pennebaker (1997) notes that researchers have not seen a difference in patient reported health benefits regardless of whether they wrote about a traumatic event, recorded their experience on a tape recorder, or told it to a trained

psychotherapist (Esterling et. al., 1994; Donnelly & Murray, 1991; Murray Lamnin & Carver, 1989).

Hypotheses for why writing and speaking about trauma can confer similar health benefits has shifted over the years. Early explanations for EWT's beneficial effects focused on the potentially healing effects of catharsis (Pennebaker & Beall, 1986; Pennebaker, 1997). The cathartic healing hypothesis is predicated on the idea that withholding or burying traumatic memories incurs a heavy cognitive load that can lead to chronic psychological and physiological stress. Releasing that cognitive load through verbal expression was thought to be the mechanism for healing (Pennebaker, 1997). Catharsis, however, does not fully explain available evidence. For example, one would expect that if withholding thoughts and feelings about trauma produced a cognitive load that grew with time, then releasing a load from the minds of individuals who have carried that load for longer should produce a greater effect. However, the opposite was found to be true when examining data trends across multiple EWT studies (Frattaroli, 2006).

The true mechanisms responsible for EWT's effect on participants' psychological and physical states are likely multi-factorial in nature and include attention, habituation, and cognitive processing (LePore et. al., 2002; Travagin, Margola, & Revenson, 2015). Authors seeking to alter early prompts to manipulate participant attention and cognitive processing produced stronger benefits when they explicitly encouraged participants to write about both positive and negative aspects of traumatic events (Burton & King, 2008; Gustella & Dadds, 2008). The sequential transformation of participants' narratives across sessions of EWT demonstrates a clear correlation between developing a more complex, meaning-infused narrative and positive outcomes (Pennebaker, 1997, Pennebaker, 1999, Frattaroli, 2006; Travagin, Margola, & Revenson, 2015; Gustella & Dadds, 2008).

Caveats

Even in studies where physiological measurements were taken from healthy undergraduate participants before and after writing, there is a clear increase in blood pressure as well as an increase in self-reported negative feelings related to writing about traumatic events in the past (Pennebaker & Beall, 1986). While these mid-treatment consequences were reversed over the following weeks, it is important that therapists remain aware of the psychological distress that focusing on trauma can have on clients during the EWT sessions.

Although positive effects have been documented across a variety of populations, some studies have shown that EWT may result in deleterious outcomes. For instance, one trial of EWT in which Israeli adults diagnosed with Post Traumatic Stress Disorder wrote for 20 minutes on each of three consecutive treatment days resulted in the recipients exhibiting more avoidance and intrusive symptoms of their disorder after completion of therapy (Gidron, Connolly, & Shalev, 1996). In this study, the authors suggest that due to the severity of the patient's condition, participants may have required concomitant therapy to help them to cope with the resurrecting of trauma. The authors also hypothesized that their participants may have required more prolonged exposure through an extended writing therapy protocol to receive benefits.

Another study using a short expressive writing therapy protocol (one 30-minute session each week for three weeks) with adolescent orphans in Rwanda found no effect on depressive symptoms (Unterhitzenberger & Rosner, 2014). In this study, the emotional writing prompt was tailored to encourage the adolescents to reflect on the deaths of deceased loved ones and to consider how these past relationships have influenced current loving relationships in the present. The prompt also invited

participants to consider how these severed relationships may shape their present and future selves. The authors were surprised to find that the control condition experienced greater benefits by writing about favorite past-times and hobbies, and suggested that in cases of prolonged grief and traumatic stress, it may have been more beneficial for participants to receive therapy that is more individualized to fit individual circumstances and concerns (Unterhitzenberger & Rosner, 2014).

Future Research Directions

Researchers have not fully explored how EWT might interface with other psychotherapeutic interventions to increase effectiveness. Most intervention groups in EWT trials that were given a general prompt to describe a past traumatic episode and to draw connections between past, present, and future events, yielded net positive mental and physiological health outcomes. However, the variability noted within these groups has important implications for applying this intervention in clinical practice. For instance, when given the same prompt, certain participants in clinical trials were better able to make these connections on their own; this subset of participants provided higher numbers of insight words and positive emotion words with each subsequent therapy session. This variability suggests that adding some other form of therapy to EWT, such as guided discussion or manipulating prompts to scaffold meaning-making may improve the outcomes for more participants.

Guastella and Dadds (2008) trialed a variety of expressive writing prompt types on undergraduate students and discovered that the participants invited to look for the positive effects of past trauma used more positive emotion and insight words in their writing and wrote more about their future selves than did other groups following the more

standardized prompt focusing on the details and general emotions about their past trauma. The authors suggest that varying the types of prompts over the course of writing therapy may in fact result in greater benefits (i.e. an initial prompt that focuses on experiential memory; a second that emphasizes general connections between past and present; a third that invites consideration of positive outcomes) (Gustella & Dadds, 2008).

In one study of "imaginal" exposure therapy, in which participants were asked to reimagine traumatic or distressing events, participants showed more positive gains when exposure therapy was paired with a guided form of cognitively restructuring therapy (Bryant et. al., 2008). It may be that more generalized prompts that invite the participant to detail traumatic events and consider effects and causal links between past and present might be more effective for more people, if writing sessions come paired with a clinician-guided and individualized form of cognitive therapy, such as CBT. More research is necessary to confirm whether these benefits are significant and whether certain populations may benefit more from this scaffolding than others.

Further attempts to refine the expressive writing paradigm to better fit particular populations as well as to individualize what has been an extremely generalizable technique will be an important consideration for future studies. Researchers should look for ways to scaffold the cognitive processing taking place in expressive writing therapy with the needs of their particular population group in mind.

ADAPTING EXPRESSIVE WRITING THERAPY FOR ADULTS WHO STUTTER

EWT's easily adapted methodology has led to trials in a variety of settings, such as with surgical patients, smoking addicts, amputees, third year medical students, and recently matriculated college students (Pennebaker, 1997; Solano et. al., 2007; Ames et. al., 2007; Gallagher & Maclachlan, 2002). In many of these settings, EWT is framed as an addition to multifaceted treatment plan (Stanton et. al. 2002; Unterhitzenberger & Rosner, 2014). In others, EWT has been implemented as a stand-alone treatment (Pennebaker & Beall, 1986).

Just as psychotherapy techniques, such as exposure therapy and mindfulness, can be employed together so that each complements the other (Boyle, 2011), expressive writing therapy may also be used in concert with other techniques aimed at improving a client's communication attitudes and abilities. Clinical trials have not yet demonstrated that EWT is effective in addressing the affective, cognitive, and behavioral correlates of adults who stutter. However, the existing body of research documenting the successful application of EWT in other populations allows for the development of predictions and preliminary guidelines for how and when to successfully employ EWT within a larger treatment plans for AWS.

Assessment

Populations that have benefited from EWT have sustained some measure of trauma or distress related to past events (Frattaroli, 2006). Most AWS have experienced numerous speech-related stuttering episodes that have caused them emotional distress

throughout their lives (Bricker-Katz, Lincoln & McCabe, 2009). One study found that across a large sample of AWS, about half had social discomfort scores similar to highly socially anxious psychiatric patients (Kraaimaat, Vanryckeghem, & Van Dam-Baggen, 2002) and another found that 60% of a study sample met the official criterial for social anxiety disorder (Menzies et. al., 2008).

Social or communication-related anxiety does not necessarily need to be pathological, however, to influence behavioral choices for AWS, such as whether or not to attend a party or to whether to ask a store attendant for help. Many otherwise healthy undergraduates with no diagnosed mental health conditions were shown to benefit physiologically, affectively, and behaviorally after a trial of EWT (Pennebaker & Beall, 1986; Pennebaker, 1999; Chung & Pennebaker, 2011). Research indicates that reducing stress in general may actually lessen the potential of and severity of a stuttering episode in what might otherwise be a triggering situation (Iverach et. al., 2011).

Patient interviews and medical history should be collected during an initial setting, so that the clinician is aware of any conditions, such as PTSD or severe depression, that may be present and that could impair a client's cognitive processing abilities. These conditions are not necessarily contraindications for EWT (Gidron, Connolly, & Shalev, 1996), but the clinician should be aware that writing sessions may bring up challenging and painful emotions. Depending on the severity of mental health trauma, a client might require additional support with processing their feelings and support to help them process their narrative in a positive and productive way. These supports may include additional cognitive processing therapies, such as CBT, and if needed, a referral to a trained mental health professional.

For any adult client seeking therapy for stuttering, therapists should test for and treat socio-emotional correlates of stuttering as part of the larger treatment plan. EWT

provides one therapeutic option to address communication-related anxiety with the advantage of easy administration and a measurable data trail, including lexical analysis of client texts and pre and post-treatment surveys or questionnaires, such as the OASES (Yaruss & Quesal, 2006) to track progress.

ANALYSIS

- Qualitative: The OASES (Yaruss, 2010) tracks categories of quality of life affected by stuttering by tracking its impact on the areas including, social engagement, relationships, and employment. Administering the OASES and conducting client interviews both prior to and following treatment will provide evidence of whether and how interventions have improved communication attitudes and associated behaviors.

- Quantitative: If conducting largescale data analyses and research funds are available, plugging the data into the Linguistic Inquiry and Word Count (LICW) program (https://liwc.wpengine.com) will provide a comprehensive analysis of clients' narratives. If tracking the progress of individual clients, an effective measure of cognitive and emotional words can easily be conducted by hand. Cognitive mechanism, or insight, words include words like "because," "realize," and "understand." The positive emotion category would include words like "happy," "relieved," "thankful," and the negative emotion category would include words like "sad," "stressed," and "afraid." Although there are not exact proportions to

look for in this analysis, in general, you should look for clients to: a) use both positive and negative emotion words with an increase in relative positive to negative emotion words as their narratives are refined after one or two sessions b) a gradual increase in cognitive mechanism or insight words across the course of therapy. In general, EWT participants who have followed these patterns of greater cohesiveness and positivity over the course of treatment, have received the most benefit from therapy.

Treatment

Although there is no agreement on the optimal duration, number, and spacing of writing sessions (Chung & Pennebaker, 2008), some evidence suggests that in order to provide sufficient time to process and revise a personal narrative around past trauma, participants will receive greater benefits if they are able to work briefly (15-30 minutes) and then return to the prompt at least three times over a few days or a few weeks (Frattaroli, 2006; Gustella & Dadds, 2008).

ADMINISTRATION

- The clinician should first provide a brief explanation of EWT and of how revisiting distressing experiences and constructing a narrative around them has been shown to improve mental and physical health.

- The clinician should then outline the plan for administering EWT (i.e. one 15-minute session each week for three to six weeks) and ask the client to fill out any baseline data desired (i.e. OASES, client interviews).

- The clinician should then provide some paper and a pen or pencil and read the client the writing prompt. Clinicians should ask clients to write about their deepest thoughts and feelings about a particularly traumatic or upsetting stuttering episode. In the prompt, suggest that the client tie their experience into relationships with others, and to their past, present, and future selves: who they were, who they are, and who they would like to be. Remind the client that he or she may reflect up on this same event during each writing session or they can also talk about other traumatic or upsetting stuttering episodes. There may be benefit in providing additional prompts, such as explicitly encouraging clients to consider positive as well as negative aspects of their experiences. A sample prompt is provided below in Appendix A.

- After the client has finished writing, the clinician should ask them to talk about their thoughts and feeling after writing. This may help the client to wind down and process any unsettling emotions that may have emerged over the course of writing.

- When reviewing the text after each session, the clinician should pay attention to trends in the client's use of emotional words and insight words across therapy in their writing as well as in any client-clinician discussion.

These words provide a measure of the kind of narrative the client is creating. Adjust the prompt as needed to ensure clients are successfully making connections between past traumatic events and attitudes, their feelings, behaviors, and abilities in the present, and what they hope to achieve in the future. Narratives should become more cohesive over time.

- If time and/or money is short, the clinician may opt to make the writing time itself homework to preserve time during each session to work on complementary therapies. In this case, the clinician would explain the EWT paradigm, answer any questions, complete any data forms desired, and then provide a written prompt with instructions to write for a proscribed amount of time (i.e. 15 minutes) and a request to bring his or her writing in to the next session.

- A note on anonymity: although clinical trials largely guarantee anonymity to its participants to encourage full participant disclosure to strangers, implementation of EWT with AWS would fall within a larger framework of client-clinician trust and programs that encourage self-disclosure. Thus, for this population group, the EWT need not remain hidden from the clinician. Sharing the content of each session's narratives will, in fact, allow for clinicians to monitor progress and to provide additional examples or pose additional leading questions (i.e. "What positive things could you have learned from this experience?") if the client is having trouble making connections between past, present, and future events and

relationships or if the client focuses too heavily on the negative components of the experience.

COMPLEMENTARY INTERVENTIONS

Although no data combining EWT with other psychotherapeutic interventions exists, it seems likely that the techniques and approaches mentioned here may provide complementary options for easing communication-focused anxiety. For clients who suffer from severe anxiety, some combination of the techniques below may support the cognitive processing taking place during EWT and may result in better treatment outcomes.

Cognitive Behavioral Therapy

Adaptations of CBT for AWS (Menzies et. al., 2008) help clients to confront and reframe their negative thoughts and feelings around common communication triggers that mirror painful or anxiety-provoking stuttering episodes in the past. Clients engaged in EWT may have an easier time making positive connections involving what they have learned or gained from past experiences if they have recently challenged long-held negative or fearful patterns of thought through CBT. In early trials, Menzies et. al. (2008) has shown CBT can be effective in reducing social and communication centered anxiety in AWS when administered in person and over the computer, but as the therapy may require a few sessions to have any effect, clinicians may want to schedule the start of EWT so that it is staggered toward the middle or the end of a course in CBT.

Mindfulness

Clients engaged in both mindfulness and EWT may also experience benefits from each approach that enhance the overall positive effect of therapy. Mindfulness aims to

help practitioners alter their physiological and behavioral responses to triggers through self-awareness and reshaping attention (Treanor, 2011; Boyle, 2011). Adopting mindfulness practices may reduce maladaptive coping mechanisms, such as avoidance in PWS, and it may lead to a reduction in client stress and an increase in their confidence as communicators (Boyle, 2011). EWT has also been shown to reduce anxiety and promote positive behaviors (Frattaroli, 2006). It does so by helping participants re-articulate their negative past experiences into lessons that have shaped their present and that they can use to help shape their futures (Pennebaker, 1999). Clients who have used mindfulness techniques to reshape their anxieties and fears in the present may be better equipped to make positive connections with traumatic moments in their past during expressive writing session, thereby enhancing the efficacy of EWT.

Bibliotherapy

Bibliotherapy has been shown to reduce anxiety and improve self-confidence, motivation, and self-acceptance in AWS (Gerlach & Subramanian, 2015). It does so by increasing exposure to and normalization of stuttering moments and by helping participants to better critique their own rutted assumptions and beliefs about their stuttering and its impact on other people in light of supportive group discussion. Bibliotherapy works most effectively when combined with other therapy techniques (Gerlach & Subramanian, 2015; Heath et. al., 2005), and although no research exists to quantify the potential benefits, clinicians may consider using this intervention concurrently to EWT or possibly in concert with EWT.

One EWT study indicated that participants who had a "hidden" challenge, such as battling autoimmune disease, benefited more from therapy when they wrote to a prompt

that encouraged them to self-identify with the stories of those who had the same issues rather than with the general population (Seagal & Pennebaker, 1997). Whether or not stuttering would be considered a "hidden" challenge is debatable, but all of the clients in the Gerlach & Subramanian study reported that reading and discussing the stuttering story helped them to reflect upon their own experience and to normalize what they had felt and gone through in their own lives (Gerlach & Subramanian, 2015).

Provided all participants are willing to share their EWT narratives in group therapy, it seems likely that sharing one's own EWT narrative with a group of supportive peers as autobiographical literature may facilitate further language-based processing of past events. Clinicians who have multiple adult clients who stutter might suggest bibliotherapy group of interested clients to share, read, and discuss their own final EWT narratives.

CONCLUSION

Using EWT as an evidence-based template for SLPs treating PWS builds on the existing clinical tradition of journaling or writing during speech and language therapy. EWT has the following advantages: a) ease of administration b) economical dosage c) measurable outcomes. Speech-language pathology clinicians can follow the template and general guidelines laid out in EWT trials while still adapting and individualizing the intervention for AWS in clinical practice. Although no research has specifically looked at using EWT with AWS, existing research supports its use in this population, and provides preliminary guidelines for its application. Future research should seek to quantify benefits in this population, and should consider how best to use this approach as part of a larger overall treatment plan for clients to address all affective, cognitive, and behavioral correlates of stuttering.

Appendix A. Expressive Writing Therapy For Adults Who Stutter

Baseline Data Collection: Administer OASES and conduct informal interviews to gather data on client emotional states and behavioral patterns linked to communication-related anxiety.

Administration: *Say to the client:* Expressive Writing Therapy is an evidence-based intervention that has been shown to help individuals to process past and ongoing sources of stress and anxiety. For the next few sessions, we will engage in expressive writing activities that will engage some of your most upsetting stuttering moments.

Prompt: *Say to the client:* At this time, I would like you to write about your deepest thoughts and feelings about the most traumatic stuttering episode you can remember. In your writing, I'd like you to really let go and explore your deepest emotions and thoughts. You might tie your topic to your relationships with others, including parents, friends, relatives, or co-workers. You might consider how this event affected your past, present, and your future, or who you have been, who you would like to be, or who you are now. You may write about the same experience on all days of writing or on different stuttering episodes each day.[2]

Data Tracking: Examine the resulting narratives from each session to get a count of how many positive/negative emotion words and how many insight words your client uses. There are no magic numbers or proportions, but look for relative trends. Ideally, you

[2] Adapted from Pennebaker & Seagal, 1999

should see a moderate use of negative words in the first session. The number of negative words should decline over time relative to the positive emotion words used. The number of insight words should also increase over the course of therapy.

Scaffolding Client Narratives: If the lexical patterns above do not start to emerge by the second or third session, provide additional scaffolding, such as:

> Try to consider both positive and negative outcomes of your stuttering episodes.
> How has your perspective changed over time?
> How have you grown and what have you learned from these experiences?

Following each session, check in with the client to determine how he or she is feeling and encourage them to talk about the experience of writing.

Final Data Collection: Re-administer the OASES and conduct a final interview that addresses communication attitudes and behaviors associated with communication-related anxiety.

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