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Abstract

Selective mutism is more common than initially thought and afflicts immigrant language minority children at approximately three times the rate of monolinguals (Toppelberg, Tabors, Coggins, Lum, & Burgers, 2005). Children who have developmental language and/or articulation problems and children who are quiet due to anxiety or concerns about accents and limited fluency can suffer from selective mutism. This case study examines the efficacy of interdisciplinary treatment with three positive psychology interventions to treat an eight-year-old Spanish-English bilingual child with selective mutism. Pet-assistance therapy, music therapy, and laughter therapy were incorporated into the child's speech-language therapy sessions to increase verbal productions across 14 weeks. Results indicated that pet-assisted therapy revealed positive outcomes, with modest gains for music and laughter. Implications of outcomes, collaboration, and conclusions are discussed.

Keywords: selective mutism, positive psychology, second language acquisition

Introduction

Afflicting immigrant language minority children at three times the rate of monolinguals, selective mutism (SM) is more widespread than originally believed (Toppelberg, Tabors, Coggins, Lum, & Burgers, 2005). SM is manifest by a recurrent failure to speak in certain milieus. Children with this condition are able to speak, but remain deliberately silent when in the company of

specific people or when interacting in particular settings. Anxiety in the form of a social phobia is presumed to be an underlying feature (Lesser-Katz, 1986; Black & Uhde, 1992, 1995). Because bilingual children of immigrant families are much more prone to it than native-born children, it is believed that one of SM's causes stems from linguistic minority children's concerns about their accents and limited fluency and thus remain silent. Second language acquisition (SLA) researchers who are familiar with the relationship of foreign language anxiety (FLA) and willingness to communicate (WTC) may feel a bit of déjà vu in that they, too, have discovered links between anxiety and one's desire to speak when given the choice.

For example, Maclntyre (1994) proposed that one of the variables most closely related to whether a person will choose to interact in their first language (L1) is communication apprehension (e.g., an individual's level of fear or anxiety associated with either real or anticipated communication with others). People who experience high levels of fear or anxiety about communicating tend to avoid it—much like children with SM. He based his findings in part on McCroskey and Richmond's (1991) work which contended that communication apprehension is the leading predictor of an individual's WTC and that there is a significant negative correlation between communication apprehension and WTC: the greater the anxiety, the more likely the person will be UN-willing to communicate.

Applied linguists have made a recent foray into positive psychology as a means of attempting to undo the negative effects of debilitating emotions like anxiety. The inclusion of positive psychology (PP) in the context of this study is valuable because PP focuses on positive features and strengths in the human psyche and human experience, not at just the challenging and stressful facets that have long been psychology's focus (Gable & Haidt, 2005). PP, with its attention on well-being, does not disregard human complications, but it addresses them from a position of strength—the factors that make humans resilient rather than what debilitates them. According to Frederickson (2001, 2003, 2004), one of PP's leading researchers on emotion, adverse emotions restrict a person's reactions to those of survival rather than flourishing. Seligman (2011) cautioned that anxiety leads to a fight-or-flight response, a set of behaviors used for continued existence, but not necessarily thriving progress. The reason that PP interventions are considered in this present study is because they are very often designed with the idea of offering resilience to those with issues such as anxiety (Park & Peterson, 2008).

This case study report describes an interdisciplinary response, using the expertise found in applied linguistics, PP, and speech pathology to address the challenge of SM in an English-Spanish bilingual eight-year-old living in the United States, who we will call *Marco*.

About Selective Mutism

SM is usually noticed in children when they begin school. Its primary indicators include not speaking in particular social situations where speech is expected, like at school, even though the child verbally communicates in other places, like home. A child with SM does not suffer a lack of knowledge of the spoken language but rather studies indicate that it may be a symptom of social anxiety. The condition can have dramatically negative effects on social functioning (Gallagher, 2002). Currently, SM is seen as a condition of severe anxiety or phobia (Anstendig, 1999), although children may have concomitant speech articulation difficulties (Steinhausen & Juzi, 1996). For an SM diagnosis, the refusal to speak must last more than one month and can last anywhere from a few months to several years. The majority of youngsters affected by this condition exhibit timid and anxious behavior in exchanges with unfamiliar people, or in any circumstances in which they perceive themselves as the focus of attention or in which they feel they are being assessed or observed. In many cases, with increased comfort and familiarization with a given social milieu, they are more inclined to speak. Research suggests that such social anxiety is the fundamental source of the disorder. However, speech articulation problems are also partially responsible for SM which makes the disorder of concern to speech pathologists (McInnes, Fung, Manassis, Fiksenbaum, & Tannock, 2004).

Diverse treatment strategies for children with SM have been recommended, but an analysis of published case material (Dow, Sonies, Scheib, Moss, & Leonard, 1996; Wright, Holmes, Cuccaro, & Leonhardt, 1994) reveals that a systematic approach to treatment has not yet been established. According to Gallagher (2002), any effective treatment provided for SM will address the child's high anxiety in social situations and the limited opportunities the child probably has had for interaction with unfamiliar people. While individual psychotherapy, psychoanalysis, and therapies involving play and the family have often been suggested for children with SM and may be important in building greater confidence and a more relaxed orientation in life, there is no evidence to date that these types of treatment are likely to be of substantial benefit. Hence professionals are currently advocating for methods that reduce anxiety and build skills (Gallagher, 2002).

Selective Mutism and Bilingualism

Applied linguists and language teachers are acquainted with the "silent period" in second language acquisition which refers to a stretch of time in which learners who are unfamiliar with a new language are building up linguistic competence through actively listening and processing the language they hear

(Krashen, 1987). This nonverbal period is a frequent and quite normal stage of a child's second language acquisition process that usually begins when they become aware that their home language is not recognized at school and their second language (L2) proficiency is inadequate or nonexistent, thus causing the learner to stop speaking completely in that setting. The nonverbal period typically is shorter than 6 months (Tabors, 1997) and can be confused with SM in bilingual children, especially when considering that immigrant and language minority children are at a higher risk (by roughly three times) of SM than those that are native born (Bergman, Piacentini, & McCracken, 2002). Because learning an L2 takes a long time, one cannot be certain whether the youngster who meets other criteria for SM has achieved the right level of linguistic knowledge or familiarity to qualify for such diagnosis, because it is hard to ascertain where the silent period ends and SM begins.

When discussing the topic of SM, the pervasive myth that L2 acquisition in children is accomplished easily, quickly, and automatically is detrimental to understanding SM in bilingual children (Snow, 1997). Indeed, acquiring an L2 is a complex process involving elaborate cognitive and social strategies (Wong Fillmore, 1979). Such strategies transport learners from the preliminary nonverbal stage to developing the capacity to communicate in their new language. The usual evolution toward L2 proficiency progresses from silence to repeating words quietly and non-communicatively to practicing words and phrases in the L2, to finally "going public" with the new language (Toppelberg, Tabors, Coggins, Lum & Burger, 2013; Ervin-Tripp, 1974; Samway & Mckeon, 2002; Saville-Troike, 1988; Wong Fillmore, 1979).

Although children progressing through the normal nonverbal period progress uneventfully through the phases described above, those with SM display no progression. They get stuck in either persistent silence or uttering phrases quietly to themselves, refusing to verbalize in circumstances that necessitate "going public." Their mutism is selective, and becomes evident in relatively unfamiliar social situations. The signs may have a tendency to be more evident in the L2, due to its dominance in school—which is the most common unfamiliar venue for youngsters with SM.

Furthermore, individual differences, particularly personality, can be a mitigating factor in a bilingual child's SM (Tabors, 1997). Specific personality features that come into play are those that result in reticent behavior with the unfamiliar (Kagan, 1997). That is to say, timid, apprehensive, and/or reticent children who are put into unfamiliar L2 situations may be more prone to reacting with mutism than children without these personality traits. When a bilingual child's silence is acute and sustained, it merits the diagnosis of SM. For these children, mutism is manifest in both languages, in numerous unfamiliar settings, and for substantial time periods. On the other hand, normal children in the silent period of L2 acquisition typically remain nonverbal in one language, in

one or two settings, and for only a few months. Even when "normal" youngsters are extensively exposed to their L2, most will not feel fully comfortable interacting in that language for six months or so. However, for these children, this discomfort will probably not result in a failure to speak. In sum, the difference between a bilingual child experiencing a typical silent period and a bilingual child with SM is that the selectively mute child has a disproportionately prolonged period of silence even after extensive L2 knowledge and exposure, their silence is evident in both languages and is displayed in conjunction with anxious, shy, and/or reticent behavior. As opposed to the negotiation and acquisition that typifies the usual learner's silent period, SM is a condition that in part can be caused by severe social anxiety.

Positive Psychology Interventions Combat Negative Narrowing Emotion

Language learning is occasionally considered "a profoundly unsettling psychological proposition" (Guiora, 1983, p. 8). The majority of research concerning the emotion surrounding language learning focuses on negative emotions, especially learner anxiety (Dewaele & MacIntyre, 2014). Consequences of anxiety include decreases in cognition, self-confidence, and willingness to communicate (Dewaele & MacIntyre, 2014; Horwitz, 2001; Horwitz & Young, 1991; MacIntyre, Baker, Clément, & Donovan, 2002). In contrast, the goal of PP is to support people in their quest for well-being. Rather than taking a mollifying attitude toward pain reduction or coping with disturbing experiences, PP seeks to provide means by which to develop positive emotions and increased engagement (Seligman, 2011). It aims to provide another angle through which to perceive human psychology by creating mechanisms to increase strengths and attributes such as resiliency, happiness, and optimismApplied linguists in the past rarely addressed the topic of PP even though its application becomes clearly visible when reflecting on the practical human and social aspects of language learning. Sensitive language practitioners are cognizant of the value of humanizing learners' experiences of language learning by nurturing their motivation, perseverance, and resiliency, in addition to the positive emotions that are crucial for the extensive process of L2 learning. For these reasons, studying the role of PP interventions that explicitly enable the expression and development of strengths represents a valuable addition to current perspectives on L2 learning processes (MacIntyre & Mercer, 2014), especially when negative narrowing emotions like anxiety cause a person to resort to specific action tendencies that result in refraining to speak altogether.

Leading the theoretical development in the area of positive emotion is Barbara Fredrickson, whose influential work on the broaden-and-build theory has argued for a clear differentiation between positive and negative emotions

(Fredrickson, 2001, 2003, 2006). According to Fredrickson, specific negative emotions each tend to be associated with a specific action tendency, a compulsion toward a specific type of behavior. For example, anger leads to the urge to destroy obstacles in one's path, fear leads to protective behaviors, and disgust leads to rejection as in quickly spitting out spoiled food. Fredrickson's research proposes that positive emotions produce a different type of response.

> The broaden and build theory states that certain discrete positive emotions—including joy, interest, contentment, pride, and love—although phenomenologically distinct, all share the ability to broaden people's momentary thought-action repertoires and build their enduring personal resources, ranging from physical and intellectual resources to social and psychological resources. (Fredrickson, 2003, p. 219)

Positive emotion can help dissipate the lingering effects of negative emotional arousal, helping to promote personal resiliency in the face of difficulties. Positive emotions also facilitate exploration and play, leading to the opportunity to have new experiences and learn in an efficient way; this is the "broaden" side of Fredrickson's theory. The social dimension of positive emotions is closely connected with the "build" side of the theory. Because people tend to be attracted to others with positive emotions, and positivity engenders both goodwill and social bonds, positive emotions help a person build resources that collectively might be considered social capital (Adler & Kwon, 2002). Given the dependence that learners have on speakers of the language (parents, teachers, native speakers, advanced learners, and near peers), the presence of other people offers numerous resources that facilitate learning (Gardner, 1985; Gregersen, MacIntyre & Meza, 2016; MacIntyre, Baker, Clément, & Conrod, 2001).

The differentiation of positive emotion from negative emotion in the psychology literature raises the interesting question of the relationship between positive and negative emotions in L2 learning in particular: Are they two sides of the same coin, or are they different notions altogether? MacIntyre and Gregersen (2012) argued in favor of the latter position: "Positive emotion has a different function from negative emotion; they are not opposite ends of the same spectrum" (p. 193). They argue that learners' imaginations have positive-broadening power, a perspective that is consistent with Fredrickson's (2001) description of positive emotions as actively promoting health and well-being and not simply being the absence of negativity. With the engendering of positive emotions in mind, we now turn our attention to three PP interventions that hold promise to increasing one's well-being.

Three Interventions: Pet-assisted, Music, and Laughter Therapies

Pet therapy. Research suggests that interventions using pet assisted therapy are effective for achieving the goal of reducing emotional stress and for enhancing mood (Thompson, 2009). Studies demonstrate that children report less pain, want more interaction, and want a pet at home when asked for three wishes after pet assisted therapy (Braun, Stangler, Narveson, & Petteingell, 2009; Kaminski, Pellino, & Wish, 2002). Pets have been reported to alleviate emotional distress through empathy, nurturing connections which foster social skills, providing support for self-efficacy and strengthening one's sense of empowerment. The human-pet interaction helps develop social skills that can be transferred to relationships with people (Wisdom, Green, & Saeide, 2009). The integration of pets into a child's therapy provides an abundance of benefits due to the commonalities they both share: both children and pets are reliant upon and attentive of adults; they live in the present moment and provide honest feedback; their communication is principally nonverbal and concrete; and finally, animals and children know how to play naturally and to give freely (Zimmerman & Russell-Martin, 2008). Given these similarities, it is not difficult to understand that using pets in therapy is mentally advantageous by increasing a child's attention, developing leisure skills, increasing self-esteem, and reducing loneliness. Educationally speaking, pet interventions have been demonstrated to increase vocabulary, increase long and/or short term memory, and improve knowledge of concepts. Finally, in the realm of motivation, children whose therapy is assisted with pets tend to be more willing to be involved in group activities, interact with others more effectively, and to be more willing to stay in treatment.

For the purposes of this study, perhaps one of the most easily observable ways in which pet therapies can be beneficial is the reduction of anxiety. For children with SM or who have an anxiety disorder, one of the greatest challenges for them is to endure a situation where the focus of attention is almost entirely on them. Lamentably, therapeutic settings can provoke the very anxiety that is the root cause of the child's condition. For someone with SM whose silence is triggered by anxiety and/or interpersonal difficulties, the result of being the center of attention during therapy could prove to be paralyzing. Thus, the impact of an unintimidating, undemanding animal could potentially reap positive gains.

Music therapy. Music therapy is another PP intervention that could potentially help children with SM. According to researchers, music therapy is a psychoanalytically oriented response to children and adolescents who experience disturbances in perception, behavior, school-related issues, or physical activities. Music therapy provides children with the opportunity to communicate in the context of therapeutic play, helping them increase their expressive

ability and understand their unconscious motivations. Using improvisation of the instrumental, vocal, and movement variety offers experiences with variable tiers of emotional expression. The distinctive value of such improvisations in music therapy lies in their spontaneity and unpredictability. That is to say, even before the child's expression can be verbalized, their reaction is already being expressed through a different medium, which results in the child's increased ability to express feelings that had previously been impossible to verbalize. Although the purpose of treatments using music are often directed at inspiring emotional expression, there can be numerous additional goals like stress or anxiety relief, improvement of emotion and quality of life enhancement for illness sufferers. In experimentation, control group members who participated in music therapy (e.g., listening to a half-hour of soothing music twice daily for two weeks) demonstrated greater reductions in stress, anxiety, and depression than those who did not (Chang, Chen & Huang, 2008).

Laughter therapy. One's ability to manage and savor the positive in life is enhanced through humor. As a tool to cope, laughter and humor alleviate anxiety (Kuiper & Martin, 1993; Moran & Massam, 1999; Yovetich, Dale, & Hudak, 1990), thus protecting individuals from the repercussions of stress (Lefcourt & Martin, 1986; Martin & Dobbin, 1988; Martin & Lefcourt, 2004). Laughter helps to preserve a healthy perspective during difficult times and increases the visible expression of happiness, improving a person's capacity to cope with negative-narrowing experiences (Bryant & Veroff, 2007). Experiments in PP have provided evidence that positive emotions can undo the effects that linger following a negative emotion (Fredrickson & Levenson, 1998; Fredrickson, Mancuso, Branigan, & Tugade, 1999). Research suggests that two different positive emotions, contentment and amusement, share the capacity to reverse negative emotional arousal. Moreover, positive emotions may also undo the psychological or cognitive narrowing produced by negative emotions. This is most likely due to the notion that positive emotions broaden an individual's momentary thought—action repertoires in ways that are irreconcilable with the continuance of negative emotion (Fredrickson, 2000). Albeit contentment and amusement do not always result in laughter, when combining the body of literature on laughter we find it convincing enough to examine whether it has positive effects on the anxiety accompanying SM.

This study draws from applied linguistics, PP, and speech pathology. Considering the inverse relationship found in applied linguistics of anxiety and WTC (and in the case of a speech pathology diagnosis of SM—a serious UNwillingness to communicate) and the previous investigations that demonstrate the potential encouraging effects of PP interventions on lowering anxiety and increasing well-being, this study seeks to answer the question as to whether the incorporation of pet, music, and laughter therapies into speech pathology

treatment will increase the WTC of a bilingual selectively mute child and provide him with the courage and resilience to speak in situations in which he currently remains silent.

Method

Case Study Participant

Marco, whose family was originally from Mexico and subsequently moved to the U.S., was a 7-year, 8-month-old male at his initial assessment. He had a suspected diagnosis of SM and notable past medical and social history. He only spoke to family members and did not speak at school. Although somewhat withdrawn and rather fearful of social embarrassment, he did not present with social isolation and withdrawal as he was regularly observed nonverbally interacting with children on the playground and in the classroom. At home, Marco's mother and father spoke primarily Spanish to him (80% of the time), and his older Spanish-English bilingual brother spoke primarily English to him. Marco's mother reported she understood English relatively well but was more comfortable speaking in Spanish. However, when Marco chose to communicate, he primarily spoke in English.

Marco's medical history began with a premature birth that required hospitalization and ventilation for three months. Subsequently, he had bouts with otitis media requiring the placement of pressure equalization tubes when he was a year and a half old. He also suffered from asthma. For a club foot, he needed to wear specialized shoes. In terms of Marco's history with speech and language services, Marco began receiving attention at a community clinic around the age of four for difficulties with speech sounds and grammatical constructions, but therapy was discontinued due to adequate progress after a year and a half of weekly therapy. When he started kindergarten, Marco was identified for speech and language services because he was not using verbal communication, although he appeared to have adequate auditory comprehension skills. His mother brought recordings of Marco speaking in English at home to quell the supposition that he did not verbalize at all. After a full evaluation, Marco was diagnosed with SM, a mixed receptive and expressive language delay, and developmental delay by the speech pathology team.

Marco first arrived at the university clinic for an evaluation in the fall of his 1st grade year, where he attended an English-only elementary school in the Midwestern United States. He had repeated kindergarten due to the difficulties encountered by his teachers in assessing his abilities because of the absence of

verbal output. At school, Marco received English speech and language therapy services, focusing on the use of a PODD (Pragmatic Organization Dynamic Display) to communicate in the classroom with assistance from a special education para-educator. A PODD is a form of augmentative and alternate communication that provides visual support that permits communication. Marco's mother was most concerned that he was still not speaking at school, and she noted that he had difficulties pronouncing some sounds in English. Marco received three months of therapy at the university clinic with minimal to moderate gains in verbal communication in the therapy setting and at school. During his second semester of treatment, three positive behavior treatments were trialed in conjunction with his speech-language therapy, which is the focus of this study.

Procedures

Throughout the spring semester at the university speech and hearing clinic (which also is a training site for students in communicative sciences and disorders and provides services for individuals in the community who have communication and swallowing disorders), a graduate student clinician introduced different strategies to facilitate language with Marco. Pet-assistance, music, and laughter were each introduced systematically in conjunction with speech-language interventions to increase Marco's comfort and verbalizations throughout the semester.

Marco participated in a total of 26 one-on-one 50-minute sessions, over a period of three and a half months. Sessions were scheduled for twice a week across 15 weeks. Pet-assistance was introduced in the third week of therapy and incorporated weekly (every Monday), and music and laughter were introduced during the eighth week of therapy and incorporated (every Wednesday) on a rotating basis (e.g., one Wednesday laughter, next Wednesday music). Sessions were designed with 30 minutes of speech-language intervention with 10–20 minutes dedicated to one of the three PP interventions to facilitate communication. Speech-language intervention time focused on remediating Marco's phonological disorder and increasing nonverbal and verbal communication through books, games, and play activities. This was based on the research that up to 50% of children with SM present with concomitant speech and language impairment (Kolvin & Fundudis, 1981; McInnes, Fung, Manassis, Fiksenbaum, & Tannock, 2004; Steinhausen & Juzi, 1996) along with the social anxiety.

Pet-assisted therapy. A certified service dog, "Bumper," came with a pet caretaker once a week for 15–20 minutes of speech therapy for eleven sessions. An initial introduction was planned to see if the pet would be an appropriate match for Marco. At the first meeting, Marco was hesitant, but he

continued to participate more each session. Throughout the subsequent weeks, Marco engaged in different activities which required both nonverbal and verbal communication with Bumper and the graduate student clinician. For example, Marco was instructed by his clinician on how to command Bumper to retrieve items by saying "Ok, Bumper" while pointing to an object. He also verbally produced a few target phrases (e.g., "Get vest," "Get leash") to give commands to Bumper and to increase verbalizations. He also participated in book reading activities to increase language and literacy opportunities with Bumper present. See Table 1 for therapy progression.

In the fifteenth and final week of treatment (session 26), the graduate student clinician and supervisor visited Marco's school to participate in a small group activity with Marco and two of his peers, multiple educational support staff (e.g., school SLP, special education teacher, classroom assistant), Bumper, and the certified service dog's owner. A benchmark was met when Marco verbally commanded Bumper to fetch items in front of his peers and educational staff. Peer interaction during this group activity was facilitated, as a same-age peer helped Marco hide an item to be retrieved by Bumper. The team was thrilled when Marco demonstrated generalization of skills learned in the clinic setting to his school environment.

Music. Prior to the initiation of treatment, Marco's mother had reported that although Marco did not sing on request, she sometimes heard him singing in his room by himself. For this reason, the team thought that music therapy might potentially produce some positive results. Music was integrated for 10–20 minutes during three separate sessions, alternating weeks with laughter. Music sessions consisted of the clinician and Marco selecting instruments of their choice, and listening to familiar children's songs to facilitate opportunities for language. The graduate clinician initially led the music activities, choosing an instrument and playing it. Later, Marco chose instruments and kept the rhythm to a song (e.g., playing on a toy xylophone). After three sessions, the music activities did not facilitate as much language output as intended but were seen via Marco's enthusiasm and engagement to be affectively advantageous. The music provided opportunities for repetitive verbal scripts where the clinician started a song (e.g., "Old MacDonald had a Farm…."), and Marco verbally finished it (e.g., "e-i-e-i-o"). This was a "cloze" task, where the clinician initiated a verbal prompt and provided wait-time for Marco to fill-in-the-blank. Such cloze tasks were commonly utilized with and without music throughout the intervention. See Table 2 for examples of session content and progress for music and laughter.

Laughter. Laughter sessions lasted 10-20 minutes on three separate occasions, alternating weeks with music. Laughter sessions consisted of the clinician

and Marco participating in five yoga poses per session (e.g., sit like a lion and then laugh like a lion, "rawrrrahahar"). When Marco first came to the university clinic for speech therapy in the previous fall semester, laughter sessions had not yet been introduced. At that time, his laughter was inaudible; he produced the facial gestures of laughing without producing sound. When laughter was initially introduced, Marco was hesitant to participate and primarily watched the clinician and laughed at the clinician's silly laughing behavior. After the first session, he was more engaged and helped to select which of the five animal poses to complete. During the laughter sessions, Marco audibly laughed in a much louder manner. He appeared to enjoy these laughter sessions and demonstrated an increase in perceived loudness. See Table 2 below.

Instruments

To evaluate treatment progress, data were collected using the following: a) weekly clinical progress notes, b) parent questionnaire, and c) anecdotal information from cross-disciplinary collaborations.

Weekly clinical progress notes. Documentation for speech-language intervention involved clinical writing known as SOAP notes, which were written after each therapy session to describe **S**ubjective information, **O**bjective data of session goals, **A**ssessment of performance, and **P**lanning for the next session. SOAP notes were written by the graduate student clinician under the supervision of the certified SLP.

Parent questionnaire. To measure parent perception of Marco's communication abilities, a parent questionnaire was provided before and after intervention to broadly quantify pre- and post-treatment changes. Marco's mother answered 13 Likert-type scaling questions ranging from 1 (always) to 5 (never); questionnaire items focused on the frequency of communication at school (5 items), at home (4 items), and outside of school (4 items). For example, one school scaling question asked, "when called on by his/her teacher, my child would answer" (Letamendi, Chavira, Hitchcock, Roesch, Shipon-Blum, Stein, & Roesch, 2008). Items were from a previous study and translated into Spanish by one of the authors of the present study.

Cross-disciplinary collaboration. Cross-disciplinary collaboration included the communication between Marco's graduate student clinician, Marco's school SLP (via email correspondence), and updates from his mother. Only documented comments (i.e., SOAP notes, archived e-mails) were included to describe case progress.

Results

Triangulating both qualitative and quantitative measures, this case study focuses on describing the procedures and results of three PP interventions: pet-assistance, music, and laughter. Table 1 and Table 2 provide examples of treatment session content and outcomes collected from the weekly clinical SOAP notes. There were four absences (two missed sessions for the academic calendar's spring break; one clinician absence and one client absence for illness).

Table 1

Pet-Assistance: Example Session Content and Results from Clinical Writing SOAP Notes

Pet-assistance	
Session	**Findings**
Week 3 (session 4)	Marco was excited to discover that a dog would be present during the tx (i.e., treatment) session. Marco was hesitant at first but quickly warmed up to Bumper. Marco indicated he would enjoy tx, if Bumper continues to come. Marco instructed Bumper to perform four tricks (i.e., fetch leash, fetch vest, fetch treat, shake) for five individuals.
Week 5 (session 8)	When prompted from clinician (i.e., "Say it a little louder"), Marco used a louder voice and repeated the task. Marco was hesitant to command Bumper to "Get Leash" and "Get Vest" but did so hesitantly. Marco used his soft voice (a loudness rating of 2) to introduce Bumper to a new friend (i.e., another graduate student clinician). Marco verbally communicated in 5 out of 5 opportunities and used his voice (rated at a loudness rating of a 3) to ask a question. After one model (i.e., "Say bye"), Marco said "bye" to the clinician at the end of the session.
Week 8 (session 13)	Marco was hesitant to command the dog. Marco required multiple verbal cues while commanding Bumper. Marco produced words to finish cloze tasks during the book activity through verbal and visual prompts (e.g., clinician looked at Marco with puzzled face). Marco greeted the clinician at the beginning and end of tx session but required an elicitation (e.g., "what do you say?").
Week 13 (session 21)	Mom reported that Marco has a best friend at school, who he says 'hello' to everyday. Mom reported Marco has asked for a dog. Marco participated in pet therapy and commanded Bumper to fetch by saying "Ok, Bumper." Marco also completed a book activity, "Brown Bear, Brown Bear." Marco produced an 8-word sentence to the graduate student clinician (i.e., "red bird, red bird, what do you see?") when completing a repetitive book activity with Bumper during speech therapy.

Table 2

Laughter & Music: Example Session Content & Results from Clinical Writing SOAP Notes

Laughter		Music	
Early **Week 8** (session 14)	Marco was hesitant to engage in the yoga activity but participated more once he felt comfortable. Marco showed great emotion (laughing, rolling on floor, etc.) during the yoga activity. Marco also presented with balance [difficulties] during 3 out of the 5 yoga poses (Plane, Lion, Turtle, Giraffe, Lady Bug).	Early **Week 10** (session 16)	The clinician began playing the first song during music therapy and arranged the instruments. The clinician gave no instructions and began playing an instrument of her choice. Marco began playing with the clinician and continued throughout the whole activity.
Middle **Week 11** (session 18)	Marco displayed enjoyment and increased laughter during laughter therapy. Mom reported that Marco approached and said "hi" to one child on the playground during recess. She reported being very happy with the progress Marco has made.	Middle **Week 12** (session 20)	The clinician implemented the use of a "loud" and "soft" column to increase the loudness of Marco's verbalizations when conversing with unfamiliar listeners. This acted as motivation for Marco to get more checkmarks in the loud column. Marco enjoyed the music therapy and required to prompting to play with the instruments.
Late **Week 13** (session 22)	Marco displayed enjoyment and increased laughter during laughter therapy.	Late **Week 14** (session 24)	Marco participated in music. Marco used his quiet voice to say "hi" to the supervisor for the first time.

Parent Questionnaire

Table 3 presents pretest to post-test changes on the parent questionnaire. Overall, maternal perception (from total questionnaire items) resulted in significant changes from average Likert scale scores of 4.15 to 3.46 ($p < 0.01$). Differences were noted between the three areas of school, home and family, as well as outside of school.

Table 3
Parent Questionnaire Pre- and Post-test Likert Scales

Scale Areas	PreTest (Jan 2015)	PostTest (May 2015)	Delayed PostTest (Feb 2016)	Delayed PostTest (May 2016)
Total Items	**4.15**	**3.46**	**3.54**	**2.54**
School	4.6	3.8	3.4	3.0
Home & Family	2.75	2.0	2.75	1.0
Outside of School	5.0	4.5	4.5	3.5

Note. A school item example was, "*when called on by his/her teacher, my child would answer.*" The client's mother responded on scale of 1 (always) to 5 (never). Question items were adapted from Letamendi, Chavira, Hitchcock, Roesch, Shipon-Blum, Stein, & Roesch, 2008 and translated into Spanish by one of the authors.

Cross-disciplinary Collaboration

After the first pet-assistance session, Marco's mother had the annual IEP (individualized educational plan) meeting with the team at his school to review his progress. The following is an excerpt from the bilingual SLP supervising Marco's graduate student clinician (and author):

> The school reported he is talking more but not yet to the teacher or in a large group (but to his 1-on-1 assistant, as well as the 2 other boys who receive special education services). Mom shared with the school team how we trialed bringing the dog into therapy and that he spoke in a louder voice and spoke also with unfamiliar speakers, which he normally wouldn't do. The school said they'd be open to having the dog come – yay! (but teased that maybe the dog would have to come every day then).

The school SLP reported positive gains (e.g., Marco was observed to quietly say "hi" to a peer at school on the playground during Week 11 of treatment). Marco's willingness to communicate more in depth with the school personnel outside of the university clinic is one indication of progress. Additionally, the school and school district's cooperation to permit a visit with Bumper demonstrated the value of this experience.

Discussion

Results show that pet-assistance therapy facilitated the most gains, which may be due to the increased intensity (every week for additional minutes) in

comparison to the music and laughter. Although music demonstrated some added enjoyment, music did not appear to have the same positive changes in verbal communication as the other to positive psychology interventions. Laughter facilitated gains in the nonverbal domain by inciting voiced and audible laughter, as compared to previous inaudible laughter. To compare dosage intensity, pet-assistance included eleven, 15–20 minute sessions, while laughter and music only included three, 10–20 minute sessions each.

An important "side product" variable that transcended the interventions that may have contributed to Marco's advancing progress was the positive rapport that the graduate student clinician was able to establish with Marco, as evidenced by the favorable comments by Marco's mother. She saw the positive relationship built with the graduate student clinician as a key contributor to his progress and motivation in therapy. Research suggests that in fluency therapy for clients who stutter, the client-clinician therapeutic relationship contributes to 30% of change, 40% from the client and his/her environment, and only 15% from the selected fluency technique. The remaining 15% contribution of change comes from hope and expectancy (Asay & Lambert, 2004; Zebrowski & Arenas, 2011). A clinician's attributes of empathy, warmth, and genuineness are valuable as well (Guitar, 2014). Gregersen, MacIntyre, and Meza (2016) address issues of PP in L2 learning and attribute the development of rapport in the form of social capital as one of the main contributing factors to the success of their study's participants. In fact, they suggest that the effects of the PP exercises in their study were secondary to the effects of the relationships that were built.

One Year Follow-up

Marco continued with speech language therapy to address his speech sound disorder and continued limitations in verbal communication outside of the home setting. However, he continued to make waxing and waning gains. Due to the training setting of the university clinic, Marco had a new graduate student clinician in the fall semester after the inclusion of the three PP interventions. The change in clinician led to some initial regression in verbal communication at therapy. Over time and re-establishing client-clinician rapport, Marco began to make progress again. Therapy included stimulus fading, which consisted of gradually increased exposure to Marco's fear-evoking stimuli, combined with differential reinforcement (Muris & Ollendick, 2015) and the creation of a difficulty hierarchy of verbal and nonverbal communication. Marco began recording short verbal messages on his mother's cell phone at home and sending these messages to his graduate student clinician. This is notable progress as Marco recorded these messages with his 'full' voice in place of a whisper.

Also, one year post trial of the three positive behavior treatments, Marco's mother requested another session with Bumper.

Conclusion

Parallels can be drawn between the inverse relationship that applied linguists have found between language anxiety and WTC in an L2 and the social anxiety that often times serves as the catalyst for a child's SM. Moreover, positive psychologists have recommended interventions that are meant to increase a person's well-being and self-esteem. Among them are exercises that include pets, music, and laughter. In this inter-disciplinary case study, we reported the results of a selectively mute youngster whose speech pathology therapy included these three elements. In triangulating weekly clinical SOAP notes, the responses from a parental questionnaire and correspondence from the cross-disciplinary collaborative team, we could ascertain that positive steps had been made in increasing Marco's verbal output in those social milieus that had previously left him mute. We conclude that from a clinical perspective, pet-assistance, music, and laughter therapy may be clinical tools underutilized by speech language pathologists, as these therapeutic strategies are not typically within the scope and practice of that discipline. However, given the underlying anxiety children with SM may have, these resources may be incorporated as part of the inter-disciplinary team approach that is recommended for service provision (Giddan, Ross, Sechler, & Becker, 1997).

Epilogue

Marco's mother reported that an opportunity arose for Marco to adopt a dog of his own, which he was very excited about. Marco's mother also reported he will be attending a science camp in the summer, indicating his desire to participate despite his communication and social challenges.

References

Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, *27*(1), 17–40.

Anstendig, K. D. (1999). Is selective mutism an anxiety disorder? Rethinking its DSM-IV classification. *Journal of Anxiety Disorders, 13*(4), 417–434.

Asay, T. P., & Lambert, M. J. (2004). The empirical case for the common factors in therapy: Quantitative findings. In M. A. Hubble, B. L. Duncan, & S. D. Miller (Eds.), *The heart & soul of change* (pp. 23–55). Washington, D.C.: American Psychological Association.

Bergman, R., Piacentini, J., & McCracken, J. T. (2002). Prevalence and description of selective mutism in a school-based sample. *Journal of the American Academy of Child & Adolescent Psychiatry, 41*, 938–946.

Black, B., & Uhde, T. W. (1992). Case study: Selective mutism as a variant of social phobia. *Journal of the American Academy of Child & Adolescent Psychiatry, 31*(6), 1090–1094.

Black, B., & Uhde, T. W. (1995). Psychiatric characteristics of children with selective mutism: A pilot study. *Journal of the American Academy of Child & Adolescent Psychiatry, 34*(7), 847–856.

Braun, C., Stangler, T., Narveson, J., & Pettingell, S. (2009). Animal assisted therapy as a pain relief intervention for children. *Therapy and Clinical Practice, 15*(2), 105–109.

Bryant, F. B., & Veroff, J. (2007). *Savoring: A new model of positive experience*. Mahwah NJ: Lawrence Erlbaum Associates Publishers.

Chang, M. Y., Chen, C. H., & Huang, K. F. (2008). Effects of music therapy on psychological health of women during pregnancy. *Journal of Clinical Nursing, 17*(19), 2580–2587.

Dewaele, J-M., & MacIntyre, P. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching, 4*(2), 237–274.

Dow, S., Sonies, B., Scheib, D., Moss, S., & Leonard. H. (1995). Practical guidelines for the assessment and treatment of selective mutism. *Journal of the American Academy of Child & Adolescent Psychiatry, 34*, 836–846.

Ervin-Tripp, S. M. (1974). Is second language learning like the first? *TESOL Quarterly, 8*(2) 111–127.

Fredrickson, B. L. (2000). Cultivating positive emotions to optimize health and well-being. *Prevention & Treatment, 3*(1), 1a.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*(3), 218–226.

Fredrickson, B. L. (2003). The value of positive emotions. *American Scientist, 91*(4), 330–335.

Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions, Royal Society of London Series B Biological Sciences, 359,* 1367–1378.

Fredrickson, B. L. (2006). Unpacking positive emotions: Investigating the seeds of human flourishing. *Journal of Positive Psychology, 1*(2), 57–59.

Fredrickson, B. L., & Levenson, R. W. (1998). Positive emotions speed recovery from the cardiovascular sequelae of negative emotions. *Cognition and Emotion, 12*(2), 191–220.

Fredrickson, B. L., Mancuso, R. A., Branigan, C., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation and Emotion, 24*(4), 237–258.

Gable, S. L., & Haidt, J. (2005). What (and why) is positive psychology? *Review of General Psychology, 9*(2), 103–110.

Gallagher, R. (2002). About selective mutism: Profiles of silence. *Depression Forums*. Retrieved from http://www.depressionforums.org/anxiety-panic-disorders/111-generalized-anxiety-disorders/259-selective-mutism

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Arnold Publishing.

Giddan, J. J., Ross, G. J., Sechler, L. L., & Becker, B. R. (1997). Selective mutism in elementary school multidisciplinary interventions. *Language, Speech, and Hearing Services in Schools, 28*(2), 127–133.

Gregersen, T., MacIntyre, P. D., & Meza, M. (2016). Positive psychology exercises build social capital for language learners: Preliminary evidence. In P. D. MacIntyre, T. G. Gregersen, & S. Mercer (Eds.), *Positive psychology in SLA* (pp. 147–167). Bristol: Mulitlingual Matters.

Guiora, A. Z. (1983). Language and concept formation: A cross-lingual analysis. *Cross-Cultural Research, 18*(3), 228–256.

Guitar, B. (2014). *Stuttering: An integrated approach to its nature and treatment* (4th edn.). Baltimore: Lippincott Williams & Wilkins.

Horwitz, E. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics, 21*, 112–126.

Horwitz, E. K., & Young, D. J. (1991). *Language anxiety: From theory and research to classroom implications*. New York: Pearson.

Kagan, J. (1997). Temperament and the reactions to unfamiliarity. *Child Development, 68*, 139–143.

Kaminski, M., Pellino, T., & Wish, J. (2002). Play and pets: The physical and emotional impact of child-life and pet therapy on hospitalized children. *Children's Health Care, 31*(4), 321–335.

Kolvin, I., & Fundudis, T. (1981). Elective mute children: Psychological development and background factors. *Journal of Child Psychology and Psychiatry, 22*(3), 219–232.

Krashen, S. D. (1987). Applications of psycholinguistic research to the classroom. In M. H. Long, & J. C. Richards (Eds.), *Methodology in TESOL: Book of reading* (pp. 33–44). New York: Newbury House.

Kuiper, N. A., Martin, R. A., & Olinger, L. J. (1993). Coping humour, stress, and cognitive appraisals. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement, 25*(1), 81–96.

Lefcourt, H. M., & Martin, R. A. (1986). *Humor and life stress: Antidote to adversity*. New York: Springer-Verlag.

Lesser-Katz, M. (1986). Stranger reaction and elective mutism in young children. *American Journal of Orthopsychiatry, 56*(3), 458–469.

Letamendi, A. M., Chavira, D. A., Hitchcock, C. A., Roesch, S. C., Shipon-Blum, E., & Stein, M. B. (2008). Selective mutism questionnaire: Measurement structure and validity. *Journal of the American Academy of Child & Adolescent Psychiatry, 47*(10), 1197–1204.

MacIntyre, P. D. (1994). Variables underlying willingness to communicate: A causal analysis. *Communication Research Reports, 11*(2), 135–142.

MacIntyre, P. D., & Gregersen, T. (2012). Emotions that facilitate language learning: The positive-broadening power of the imagination. *Studies in Second Language Learning and Teaching*, (II–2), 193–213.

MacIntyre, P. D., Baker, S. C., Clément, R., & Conrod, S. (2001). Willingness to communicate, social support, and language-learning orientations of immersion students. *Studies in Second Language Acquisition, 23*(3), 369–388.

MacIntyre, P. D., Baker, S. C., Clément, R., & Donovan, L. A. (2002). Sex and age effects on willingness to communicate, anxiety, perceived competence, and L2 motivation among junior high school French immersion students. *Language Learning*, *52*(3), 537–564.

MacIntyre, P. D., & Mercer, S. (2014). Introducing positive psychology to SLA. *Studies in Second Language Learning and Teaching* (IV–2), 153–172.

Martin, R. A., & Dobbin, J. P. (1988). Sense of humor, hassles, and immunoglobin A: Evidence for a stress-moderating effect of humor. *International Journal of Psychiatry in Medicine, 18*, 93–105.

Martin, R. A., & Lefcourt, H. M. (2004). Sense of humor and physical health: Theoretical issues, recent findings, and future directions. *Humor, 17*(1/2), 1–20.

McInnes, A., Fung, D., Manassis, K., Fiksenbaum, L., & Tannock, R. (2004). Narrative skills in children with selective mutism: An exploratory study. *American Journal of Speech-Language Pathology, 13*(4), 304–315.

Moran, C. C., & Massam, M. M. (1999). Differential influences of coping humor and humor bias on mood. *Behavioral Medicine, 25*(1), 36–42.

Muris, P., & Ollendick, T. H. (2015). Children who are anxious in silence: a review on selective mutism, the new anxiety disorder in DSM-5. *Clinical Child and Family Psychology Review, 18*(2), 151–169.

Park, N., & Peterson, C. (2008). Positive psychology and character strengths: Application to strengths-based school counseling. *Professional School Counseling, 12*(2), 85–92.

Richmond, V. P., McCroskey, J. C., & Payne, S. K. (1991). *Nonverbal behavior in interpersonal relations*. Englewood Cliffs, NJ: Prentice Hall.

Saville-Troike, M. (1988). Private speech: Evidence for second language learning strategies during the 'silent' period. *Journal of Child Language, 15*(3), 567–590.

Seligman, M. E. (2011). *Learned optimism: How to change your mind and your life*. New York: Vintage.

Snow, M. A. (1997). Teaching academic literacy skills: Discipline faculty take responsibility. In M. A. Snow & D. M. Briton (Eds.), *The content-based classroom: Perspectives on integrating language and content* (pp. 290–304). New York: Addison Wesley Longman.

Steinhausen, H. C., & Juzi, C. (1996). Elective mutism: An analysis of 100 cases. *Journal of the American Academy of Child & Adolescent Psychiatry, 35*(5), 606–614.

Tabors, P. (1997). *One child, two languages*. Baltimore: Brookes.

Thompson, M. J. (2009). Animal-assisted play therapy: Canines as co-therapists. *Compelling Counseling Interventions: VISTAS*, 199–209.

Toppleberg, C., Tabors, P., Coggins, A., Lum, K., & Burger, C. (2005). Differential diagnosis of selective mutism in bilingual children. *Journal of American Academy of Children and Adolescent Psychiatry, 44*(6), 592–595.

Wisdom, J. P., Seadi, G. A., & Green, C. A. (2009). Another breed of "service" animals: STARS study findings about pet ownership and recovery from serious mental illness. *American Journal of Orthopsychology, 79,* 430–436.

Wong Fillmore, L. (1979). Individual differences in second language acquisition. In C. J. Fillmore, W.-S. Y. Wang, & D. Kempler (Eds.), *Individual differences in language ability and language behavior* (pp. 203–228). New York: Academic Press.

Wright, H. H., Holmes, G. R., Cuccaro, M. L., & Leonhardt, T. V. (1994). A guided bibliography of the selective mutism (elective mutism) literature. *Psychological reports, 74*(3), 995–1007.

Yovetich, N. A., Dale, J. A., & Hudak, M. A. (1990). Benefits of humor in reduction of threat induced anxiety. *Psychological Reports, 66*(1), 51–58.

Zebrowski, P. M., & Arenas, R. M. (2011). The "Iowa Way" revisited. *Journal of Fluency Disorders, 36*(3), 144–157.

Zimmerman, D., & Russell-Martin, L. (2008). Connecting with kids: The EAGALA model with young children. *EAGALA in Practice,* 18–21.

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Die Sprechangst und selektiver Mutismus bei einem zweisprachigen Kind – die der positiven Psychologie entnommenen Behandlungsmethoden

Zusammenfassung

Selektiver Mutismus ist ein Phänomen, das häufiger als man früher vermutete auftritt, und die Kinder der Immigranten etwa dreimal häufiger als einsprachige Kinder betrifft (Toppelberg, Tabors, Coggins, Lum & Burgers, 2005). Am selektiven Mutismus können leiden: Kinder mit Sprechstörungen und/oder Aussprachefehlern und die aus Furcht vor unrichtigem Akzent oder ärmlichem Wortschatz wortkargen Kinder. Die vorliegende Fallstudie untersucht die Wirksamkeit der interdisziplinären Behandlung eines achtjährigen Kindes mit Anwendung von den drei in positiver Psychologie angewandten Behandlungsverfahren. Logopädische therapeutische Sitzungen, an den der Patient 14 Wochen hindurch teilnahm, wurden um tiergestützte Therapie, Musiktherapie und Gelotologie erweitert. Ihre Ergebnisse zeigen, dass tiergestützte Therapie positive Resultate brachten, während Musiktherapie und Gelotologie nur ansatzweise dazu beitrugen, das Behandlungsziel zu erreichen. In dem Beitrag werden auch erörtert: Forschungsfolgen, Möglichkeiten weiterer Zusammenarbeit und Schlussfolgerungen.