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Psychosocial Impact of Living with a Stuttering Disorder: Knowing is Not Enough

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Abstract

Stuttering requires a multidimensional perspective given that, in recent years, researchers have shown the impact of the disorder to reach far beyond the surface components with demonstrated psychosocial and anxiety effects for the individual living with a stutter. This article explores the impact a stuttering disorder has on the individual (child, adolescent and adult), and on their family members (siblings, parents and partners). These experiences include behavioral and social difficulties, self-awareness, reactions to stuttering, communication difficulties in daily situations, and overall quality of life. The influence of stuttering on the most intimate relationships the person who stutters shares with others is presented.

An overview of stuttering across the lifespan is discussed in terms of stuttering in children and adolescents with significant levels of adverse impact as a result of living with a stutter described. In addition, the impact that the stuttering disorder has on the parents and siblings of children who stutter is also detailed through significant findings pertaining to lack of attachment and trust between the young people and their parents. The responsibilities and demands on parents and siblings in the family context are highlighted. Focus is also placed on the experience of living with a person who stutters from the perspective of their life partner. Perceived quality of life is explored with unexpected differences recounted between the quality of life experienced by the adult who stutters and their partner's perceptions of this disorder. Finally, the potential for a novel Acceptance and Commitment Therapy for individuals who stutter is presented.

Learning outcomes:

As a result of this activity, the reader will be able to

(1) Understand the reactions and speaking experiences of children and adolescents who stutter compared to those who do not stutter
(2) Appreciate the impact of the disorder of stuttering is not related to the degree of severity
(3) Discuss clinical outcomes including more realistic goals such as some stuttered speech and acceptance of "normal" reactions to speaking include reasonable levels of concern
(4) Appreciate how the quality of the sibling relationship differs when there is a sibling in the family who stutters

(5) Identify how the parent child relationship is impacted upon by the consequences of living with the stutter over time
(6) Recognize the themes that partners of adults who stutter share with their loved one while appreciating different quality of life perspectives.
(7) Appreciate the potential for Acceptance and Commitment Therapy for individuals who stutter

Key Words

Stuttering, psychosocial, parents, siblings, partners, quality of life, ACT

Multiple Choice Questions

1. For young people who stutter compared to their fluent peers:
    a) The life experiences are the same
    b) Lower levels of adverse impact are seen in young people who stutter
    c) Young people who stutter experience a reduced quality of life
    d) "Zero negative reactions" to speaking are essential for successful therapy outcomes
    e) Stuttering increases quality of life experiences

2. Frequency of stuttering and quality of life are possibly related in what way?
    a) Low frequency of stuttering is related to reduced quality of life
    b) Higher levels of stuttering is related to reduced emotional functioning
    c) Severity of stuttering is not related to quality of life
    d) People with more severe stuttering are more likely to be impaired physically
    e) None of the above

3. The sibling study revealed that the sibling dyads with a child who stutters compared to those with exclusively fluent siblings experience?
    a) Greater closeness, greater conflict and greater disparity
    b) Greater closeness, less conflict and less disparity
    c) Greater closeness, greater conflict and less
    d) Less closeness, greater conflict and greater disparity
    e) Less closeness, less conflict and less disparity

4. The parenting research compared parents and children who stutter with parents of children who do not stutter and found:
    a) Lower overall parental attachment, lower overall peer attachment

b) Lower overall parental attachment, higher perceived parental trust, lower perceived peer communication
c) Higher overall parental attachment, higher perceived parental communication, higher overall parental attachment
d) Lower overall parental attachment, lower perceived parental trust, higher perceived peer communication
e) Higher perceived parental alienation, higher perceived parental communication, lower perceived peer alienation

5. Research including the partners of adults who stutter revealed which of the following to be correct?

a) People who stutter reported more negative reactions to stuttering than their partners
b) There were differences in the responses of speakers and their partners in terms of quality of life responses
c) People who stutter reported less negative reactions to stuttering than their partners
d) Partners had difficult with acceptance of stuttering in their loved one
e) Partners had difficulty offering support to their loved one who stutters

6. The central aim of Acceptance and Commitment Therapy is to?

a) Suppress thoughts and control emotions
b) Promote psychological flexibility
c) Eliminate stuttered speech behaviors
d) Replace negative thoughts with positive ones
e) Engage in positive affirmations

7. Which of the following summarizes the core processes of Acceptance and Commitment Therapy?

a) Self-content, fusion, avoidance, mindfulness, goals and committed action
b) Self-concept, fusion, acceptance, mindlessness, goals and committed action
c) Self-content, defusion, avoidance, mindfulness, values and action
d) Self-concept, illusion, acceptance, mindfulness, values and committed action
e) Self-concept, defusion, acceptance, mindfulness, values and committed action

Answers: 1. C; 2. C; 3. A; 4. D; 5. B; 6. B; 7. E.

Stuttering as a Multidimensional Disorder.

Presumably, everyone who reads this special edition of *Seminars in Speech and Language* finds stuttering to be an intriguing disorder. It is well known that stuttering has been described as a speech motor disorder that interrupts the timing and/or coordination between the respiratory, laryngeal, and vocal tract subsystems of speech.[1-6] However, other authors have described the cognitive, linguistic and psycholinguistic components of the disorder that can influence a person's overall communicative competence.[7,8] The pervasive nature of stuttering defies a uniform definition, however, because stuttering includes core surface speech elements, such as repetitions, prolongations and cessations of sounds interwoven with elements that exist below the surface. Such covert or affective components include stress, anxiety, and negative reactions to speaking in general. These layers of difficulty often manifest in significantly reduced quality of life for the person who lives with a stutter on a daily basis.[9,10]

Many clinical researchers have noted there is more to the stuttering disorder than just the surface features.[10-19] Historically, Sheehan[15] described stuttering using an "iceberg" analogy in which the speaker's experience of the stuttering disorder is represented as the region "under the surface". The nature of stuttering has the potential to elicit ridicule, embarrassment, frustration and/or pity from the listener; therefore, it is inevitable that it is associated with some degree of fear, anxiety and/or frustration in the person who stutters.[20-23] Researchers and clinicians have argued for a more expansive model of stuttering, which presents not only the surface behaviours in an individual's speech, but also the psychosocial impact or consequences stuttering has on their life.[19,24-28]

This concept of looking at stuttering from a layered perspective appealed to the group of clinicians who work in the largest stuttering treatment clinic in Western Australia – the Curtin Stuttering Treatment Clinic at Curtin University in Perth. This is a specialised community-based clinic established for over 30 years as a student training facility. It embraces the lifespan of stuttering - treating toddlers through to senior citizens. Since inception, the clinic has treated over 8000 clients and presently there are 3 concurrent clinics managing over 50 clients per week.

The client and their family are involved in individualised therapy tailored to their specific fluency needs**.** In addition to individual treatment sessions, groups for school-aged children, adolescents and adults are run in afternoon and evening sessions with holistic psychosocial and

fluency objectives underpinning each group. The parents, siblings and partners accompany the person to their treatments and at various times, and there are support groups conducted for these family members as well.

The specialised nature of the clinic means that often clients with concomitant difficulties or complex, long-standing communication needs are referred on by other clinicians. Given the diverse range and complexity of the fluency difficulties with which we work, the concept and necessity of seeing beyond the stutter and managing more of the psychosocial issues evolved naturally for all of us working in the clinic. We undertook research that had a direct bearing on the clinical initiatives we were incorporating into our daily practice and this involved two primary fundamental principles:

1. If we are going to claim to support all aspects of a stuttering disorder, a holistic therapeutic model to treat stuttering is necessary. There needs to be a designated benefit in assimilating fluency techniques at the same time as the psychosocial impact and consequences that stuttering has are managed.
2. If we are going to administer truly efficacious therapy, we also need to address the influence that stuttering has not only on the individual, but on their family members as well. The most important emotional unit to which we belong, and the one that affects the course and outcome of our lives the most, is our family. Recent clinical research has shown that it is imperative to understand how the impact of a disorder, and responsibility for its treatment, is distributed among the entire family unit and all the members therein.

As our esteemed colleague Willie Botterill from the Michael Palin Centre wrote before she retired, no single component of the family can be understood in isolation from the others. Ultimately, the whole family, not just the isolated individual with the disorder, is described as the most accurate and correct definition of "client".[29]

The Impact of Stuttering on School-Aged Children and Adolescents.

To begin, we wanted to gain deeper insight regarding the effects living with a stutter has on our school-aged children and adolescents alike. Parental reports have indicated that children who stutter are aware of their stuttering shortly after its onset, and thus the potential for social interaction to be impaired can occur from an early age.[30,31] Children who stutter have been found to experience more negative attitudes towards speech than those who are normally fluent, even

as young as 3 and four years of age, and these negative attitudes appear to worsen with age and stuttering severity.[32-37]

To date, research has not delineated the nature or extent of the negative impact that stuttered speech has on the vulnerable school-aged and adolescent age groups. This age bracket has been described in health research as "invisible" as these children and teens are significantly at risk for mental health problems. Themes that have emerged in qualitative mental health research with such young people include those of secrecy, not wanting to talk to adults, very strong emotional feelings, and the conflicting need and desire for time to themselves or with other young people, but not with parents, teachers or counsellors.[38]

Thus, we wanted to know the ways in which negative experiences towards speaking affect school-aged children and adolescents and in terms of trajectory when these reactions emerge developmentally. In addition, we wanted to know if these experiences were unique to young people who stutter. These ages represent times of change in young people's lives, and it is not necessarily clear which aspects of the experience of stuttering are unique to stuttering and which are perhaps just part of growing up and learning to communicate with others. We chose to examine in detail the reactions and experiences of children and adolescents (N=95) who stutter, directly comparing them to a matched control group of young people who do not stutter (N=95).[39] The findings are more fully explored in two articles that I have written with my clinical research team.[38,39]

What we know about the experiences of young people who stutter, and why this is important in their treatment:

- These young people experience a reduced quality of life compared to their fluent peers.
- These young people are hurting because of their speech difficulties – particularly the adolescents.
- They experience greater adverse impact on their lives than do their fluent peers – particularly in their social interactions.
- They have greater concerns about speaking, magnified affective, behavioural and cognitive reactions to speaking and significantly compromised communication in daily situations.
- There is a significant association between stuttered speech frequency (%SS) and self-

awareness and knowledge of their stuttering experience (as measured by the Overall Assessment of Speakers' Experience of Stuttering-Standard Interview[40]) for children.

- But – interestingly, there is no significant correlation between %SS and other sections of the OASES for adolescents. That is, as the child gets older, adverse impact is not determined by overt speech disruptions.[38,41-42]
- The traditional surface severity of the young person's stuttered speech does not indicate how much they may be struggling with the impact of the disorder. The surface picture is potentially misleading – those who present as "mild" may well be suffering as much or more than those whose stuttered speech is more noticeable and visible.
- An important clinical implication emerged from the finding that young people who were fluent ***also*** had some degree of negative reaction to their speaking ability. Many people have unfavorable impressions of their speaking ability. Thus, the goal of therapy addressing negative reactions to stuttering does not necessarily need to seek an outcome of "zero negative reactions" in order to be successful. Helping a child achieve 'normal' reactions (which may include some low level of concern about speaking) may be a more reasonable outcome.
- Finally, inclusion of strategies for managing the psychosocial impact of stuttering as well as the stutter *per se* in a holistic approach to the treatment of young people who stutter appears to be imperative in setting up therapy goals. Clinical assessment regarding young peoples' attitudes towards their communication is a priority and psychosocial support to reduce anxiety levels and negative expectancies are equally important as strategies for fluent speech.

The Impact of Stuttering on Siblings.

What was evident in the families who attend the Curtin Stuttering Treatment Clinic is the fact that within the family constellation, the closest person to the individual who stutters is often their sibling. It has been suggested that the emotional ties between siblings are second only to those between children and their parents[43], and that these sibling relationships are unique in terms of their power and vitality in the child's wellbeing and development. Despite these findings, the impact of stuttering and stuttering therapy on the siblings of a child who stutters and the subsequent quality of the sibling relationship had previously not been thoroughly explored.

It has been suggested by Bank and Kahn[44] that siblings follow a particular relationship life cycle. In early childhood, they provide a constant source of companionship; during the school years, they extend themselves to others external to the family; and during adolescence, siblings demonstrate ambivalence regarding their relationship but still confide in and advise each other to a considerable extent.[45] Siblings, in general, share the majority of time with each other, especially during childhood, and often greater time with each other than with their parents[46].

Barr and colleagues[47] explored the experiences and impact that a speech impairment had on siblings in the context of a family-centered practice therapy. When others were present, the sibling tended to interpret and speak for the child with the speech impairment in order to protect them from being misunderstood and potentially embarrassed. Siblings described personal difficulties, including jealousy and concern about their sibling with the speech impairment. Positive features, however, were also described by these siblings, including such attributes as increased maturity and insight, tolerance, pride, advocacy, loyalty, strength and resilience.[48]

Thus, we were interested to know siblings' perspectives on the impact of stuttering on their sibling, their parents and on them. In addition, we wanted to know their views on the therapy being administered. In our 2012 study[49], we enlisted (N=12) sibling dyads and their parents where one child in the dyad stuttered plus matched control (N=12) sibling dyads and their parents where both siblings were fluent, for a total of 96 participants.

What we found and the clinical implications for siblings of young people who stutter:

- Fluent siblings exhibited strong emotions regarding their sibling who stutters – both positive and negative. The emotions described by the fluent sibling appeared independent of the stuttering severity ratings of their siblings, with children with mild stuttering generating the same reactions as those with severe stuttered speech.
- Three-quarters of the siblings reported that they had discussed stuttering with their parents, but only one child explained that their feelings and impressions about stuttering had been sought. Thus, stuttering had not been discussed with the vast majority of the siblings. The discussions with parents focused on ways to help the child who stutters, but the fluent sibling's insights and potential difficulties were not addressed.
- Children who stutter and their siblings demonstrated significantly greater closeness, and concurrently, increased conflict and status disparity, than did the fluent sibling dyads.

- Parents also demonstrated significantly greater partiality towards their children who stutter. No consistent partiality was found in the families of fluent children.
- Fluent siblings reported being frustrated by the child who stutters, but also being upset when they were bullied or teased by others.
- Half of the siblings often served as protection for the child who stuttered and identified this as a positive role with the potential to educate others.
- Two-thirds of the fluent siblings were involved in the therapy as a natural by-product of sharing more conversational interactions with the stuttering child than any other family members. Again, this was described as a positive and constructive role.
- Some siblings attributed their importance in the therapy program to their perception that they were 'looked up to' by the child who stutters.
- The majority of siblings reported a desire to be more involved in the therapy process than they currently were.
- Family-centered interventions are useful and effective, but such dependence on parents-as-clinicians may produce increased pressure in the home.[47,50] This is particularly important given that parent stress levels have been found to be a strong predictor of sibling adjustment difficulties.[50]
- Awareness and education regarding the potential impact of stuttering on the sibling relationship is imperative in successful and positive therapy. A better understanding of the impact of stuttering on siblings may lead to a healthier integration of the entire family in the treatment process and even enhanced support from siblings in the clinical process.

The Impact of Stuttering on Parents.

The most complex partnership of all is that of the child who stutters and their parents. In our team discussions regarding this area of research, an impression that emerged consistently was that there are parents who can definitely be identified early in the therapeutic process as having great positive potential to work with the child's stutter. On the other hand, there are those who undoubtedly bring challenges to this process as well. We wanted to understand more clearly the methods underpinning different parenting styles, so that we could better equip ourselves to work with different styles of parenting and to potentially modify our practices and procedures to

accommodate these differences across families.

Previous research in stuttering disorders has emphasised facets of parent-child attachment such as communicative styles of the parent, parent speech characteristics, their attitudes and their knowledge of stuttering. But, knowledge of the ***impact*** of stuttering on parents has been limited by a lack of empirical investigation. As Yairi and Ambrose stated in 2005, "…the continuous influence of stuttering…on the child's family has largely been overlooked by investigators."[51] Therapy traditionally has focused on what the parent can do to help their child rather than on the crisis created for the family by the child who stutters.

School-aged children between the ages of 6 and 12 years old have unique psychosocial, affective and behavioural developmental patterns that set them aside from pre-schoolers and adolescents. They are bridged between the two. Moving towards adolescence, they show increasing independence from their parents at the same time as an increasing dependence on their peers for social, emotional and academic support.[52] School-aged children also demonstrate preliminary notions about their sense of self and personal identity in a growing awareness of future socialisation. Consequently, the disruptive nature of stuttering may hamper the way young people engage in and practice social discourse.[53] The growing demands placed on the school-aged child for increasing adult-like social competence can exacerbate communication anxiety.[54]

Therefore, the quality of the parent-child relationship plays an increasingly important role in providing the child with models of social competence, coping strategies and motivation in life. Evidence from psychology and psychiatry has suggested that optimal parenting equips children with effective social adjustment and coping resilience.[55-57] Securely attached children are more enthusiastic and have better problem-solving skills than others without the same degree of attachment with their parents.[58]

Our study[59] aimed to examine whether measures of parenting styles, parent and peer attachment patterns, and parent and self-reported child behaviour could differentiate school--aged children who stuttered from their fluent peers. In the light of such previous findings in other disciplines, the question revolved around whether or not distinctive parenting styles and resultant unique parent-child attachment patterns existed for a population of school-aged children and their parents compared to their fluent peers and their parents. The goal was not to look for blame or responsibility in the parent-child relationships, but rather to explore the impact that stuttering

has on important family processes. From our clinical waiting list for treatment, school-aged children who stutter (N=10) and their parents (N=20) were compared to matched control normally fluent (N=10) children and their parents (N=20).[59]

- In terms of parenting styles, there were no significant differences found between those of the parents of children who stutter and those of parents of normally fluent children. The separate evaluation of particular parenting styles of mothers and fathers also yielded no statistically significant results.
- Parents of children who stutter rated these children as showing significantly more behavior difficulties than their normally fluent children.
- Children who stutter rated their parents with significantly lower parental attachment than fluent children did for their parents.
- Children who stutter perceived their parents with significantly lower parental trust than did their fluent peers. Such findings are consistent with the possibility that the continued experience with stuttering over time impacts on the quality of the relationship between a parent and their child.
- The majority of children who stutter reported frustration with the manner in which their parents attempted to manage their stuttering episodes.
- Young people who stutter reported frustration not only with the ways their parents attempted to shape their fluency, but were also frustrated by how the parents disclosed information regarding their stuttering. There was general consensus that the child would have preferred more autonomy in these decision-making processes.
- The majority of children who stutter reported that their friends were aware of the stutter, but were not unduly concerned by it. They also reported friends who helped them with their speech, and appreciation of these attempts to help manage their fluency. This is in contrast to the aggravation these same children expressed when reflecting on their parents' management attempts.
- The results demonstrated the serious consequences of stuttering intruding on and interfering with natural family communication.

- It is likely that the chronic nature of stuttering over time may impact on or alter parenting styles. Parents of children who stutter have to work harder to engage their children and compensate for their difficulties, than do parents of normally fluent children.
- The finding that children who stutter perceive their parents with significantly lower attachment than their fluent counterparts highlights the importance of clinical management for these families to include the nature and quality of the interactions between the parent and their child.[60] Given the pervasive influence that parents have on their children, educating them to recognise the potential impact their actions can have on the child is a crucial and enormously satisfying aspect of the therapeutic process.
- The collective findings from this study highlight a need to address a broader conceptualisation of stuttering. The complexities of the stuttering disorder and its impact on life relationships were reported by every participant and their parents alike. For clinicians, there is a need to be cognizant of the psychosocial impact of the stutter on the entire family constellation.
- Because each family dynamic is unique, there is no "one size fits all" in the management of childhood stuttering; clinicians will need to individually assess and then problem-solve the unique and complex relationship issues among their children who stutter, their parents, and their siblings.

The Impact of Stuttering on Partners.

The adult stuttering treatment we undertake evolved from a family system's philosophy in that the partner is typically involved in the therapy process. Because of this viewpoint and the large numbers of adults with whom we work, the priority emerged for us to gain a greater appreciation and understanding of the experiences of these partners. In looking at the research to date, it has explored others' perceptions of the person who stutters from the point of view of teachers, professionals, employers and peers. However, there is limited information regarding the impact on the most intimate relationship of all – that between the adult who stutters and their life partner.

Adults often view their stutter as an obstacle to developing relationships with potential partners.[61,62] Hallmark research was conducted in the 1990's by the Bobergs through their investigation of the "Other Side of the Block" from the spouse's perspective.[63] Further, Julia

Boberg and Deborah Kully raised awareness regarding the pivotal role that the spouse could play in fluency therapy.[64] Other research has recognized that supportive relationships serve as a critical element beneficial to the overall experience of therapy.[65] Still, specific issues related to how a stuttering disorder might affect the quality of life of fluent partners, or how the presence of a fluent partner might affect an individual who stutters, have yet to be examined. We were interested in exploring the nature of the role of the fluent partner and the range of their personal experiences which are relatively unexplored in a study that we recently completed.[66] Participants (N=20) included working couples in their twenties through to retirees in their sixties. There was a cross-section of couples; some with children, some without and some who were grandparents.[66]

What we found and the clinical implications for both partners and adults who stutter:

- Key findings from our research with partners included that facts that people who stutter and their fluent partners reported similar knowledge of stuttering, similar personal reactions to stuttering, and reported a similar degree to which stuttering affects communication. There was great congruence in their responses, in that they viewed stuttering in the same way.
- Qualitative results indicated that the participants shared life experiences regarding reactions to stuttering. Strong emotive issues were raised by personal accounts from both partners. There were similar significant concerns expressed with social interactions and anxiety. Nearly half of the partners expressed feelings of overprotection towards their loved ones and anguish as they watched them speak.
- The fluent partners reflected on and explained the support that they felt they provided to their stuttering spouse on a regular basis. This type of support varied from explicit provision of a target word during moments of dysfluency in conversation, to broader concepts of patience in allowing the person who stutters to express themselves without pressure. Further, most fluent spouses encouraged their spouse to seek therapy, and described the support they provided regarding the range of decisions their partner made in the pursuit of fluency.
- Participants referred to the notion of “acceptance” of the stutter without regarding it as a limitation in their relationship.

- Honesty and integrity were articulated as important relationship components on a consistent basis.
- However, no relationship was seen between the two groups (stuttering spouse and fluent partner) in terms of perceived impact on quality of life. This implies that partners may still not be fully aware of the true extent of the adverse impact that stuttering has on their loved one's overall quality of life.
- Spouses' comments also highlighted the intricate and complex changes that therapy can bring about.
- Across disciplines, the literature indicates that a positive treatment outcome for an individual is directly related to the family's commitment to and involvement in the treatment process. Luterman demonstrated in 1996 that, if you "take good care of the spouse, the identified patient will also do well."[67] The findings from our research seem to support Carlisle's suggestion[68] that many adults who stutter are indeed fortunate in their choice of life partner.
- We believe that the potential for partners to be agents of change to augment our treatments is powerful and undeniable and that more successful therapy results from encouragement and involvement of the spouse.
- Our findings provide support for a broad-based clinical program for adults who stutter that includes the fluent partner as a support in their treatment efforts. Over their lifetime, the partner usually spends more time with this person than anyone else. It makes sense that they are a logical and valuable resource. A more complete understanding of the therapy process is achieved by involving the spouse from the outset.

Knowing about the Psychosocial Impact is Not Enough:

We have described the affective, behavioral, and cognitive impacts of stuttering, in addition to the adverse effect on overall quality of life, which arise from living with a stuttering disorder. In our work, it is clear that stuttering has an impact on relationships within the family, in particular for the sibling, the parent and the partner of the person who stutters. However, the relationship between speech fluency and these impacts is not transparent: The traditional surface severity of stuttered speech does not indicate how much the person may be struggling with the impact of the disorder. Clinical assessment regarding the person's attitude towards their

communication is a priority and psychosocial support to reduce anxiety levels and negative expectancies is equally important as the actual strategies for fluent speech.

Further clinical insights arose with each population studied. For example, the school-aged children who stuttered reported frustration with the nature in which their parents tried to manage their stuttered speech. In addition, they wanted to be present when their stutter was explained to their teachers. Such seemingly minor yet important practical considerations endorse future family- based interventions.

The papers presented in this submission have highlighted the need and value for stuttering treatments to include a psychosocial management component. The demonstrated impacts that stuttering evokes, provide the groundwork for treatments that support psychological flexibility. Consequently, research conducted in the Curtin Stuttering Treatment Clinic has recently investigated the effectiveness of a novel integrated Acceptance and Commitment Therapy (ACT) program for adults who stutter.[69,70]

In addition, the motivation for this effectiveness based study was clinical in nature. The Curtin Stuttering Treatment Clinic is a center offering specialized clinical expertise and is respected as a second opinion clinic for previously unsuccessful stuttering treatments. Each adult had formerly been provided with speech pathology therapy intervention, but it had been deemed not to have achieved significant improvement or success.

Previous adult treatment outcome studies have documented the use of cognitive behavioural therapy (CBT) for adults who stutter.[71-73] Such CBT treatment components specifically target increasing optimistic attitude, and decreasing negative cognitive appraisal through direct attempts to change maladaptive attitudes towards communication and social anxieties. The literature however indicates that efforts to repress undesired thoughts may be unworkable and even counter-productive. Efforts to eradicate unwanted thoughts, seem to highlight and reinforce them further which results in increases in unwanted thoughts especially in times of stress.[74-76] Considering the chronic environmental stressors in the life of a person who stutters, we thought it appropriate to explore a different approach to the management of experiential avoidance through a treatment model that encourages psychological flexibility instead of control. The six core processes that contribute to psychological flexibility in the ACT model are self-concept, defusion, acceptance, mindfulness, values and committed action.[69,77]

ACT as a treatment option has been shown to expand behavioural choices, reduce emotional reactivity and improve quality of life for individuals having chronic medical and psychological issues in other disorders.[78-80] To date however, no research had investigated how the core processes of an integrated ACT model could help adults who stutter deal with the impact of the disorder more effectively.

The integrated ACT program that we wrote focused on effective communication techniques for improving frequency of stuttering at the same time as strategies addressing psychosocial functioning, readiness for therapy and change, utilization of mindfulness skills, and psychological flexibility for adults who stutter.[69,70] The results for the 20 adults who stutter (10 men and 10 women) showed that all participants experienced significant reductions in the adverse impact of stuttering on their lives, an increase in their readiness for change, an improvement in their mindfulness skills and a reduction in their overall frequency of stuttering.[70] Further, these psychosocial and fluency gains were maintained for a three month period after the treatment ceased.[70]

The program helped people who stutter focus on their personal values through a flexible treatment paradigm that incorporated both speech changes and psychosocial changes in an ACT framework. It led to consistent, positive changes for a wide range of individuals who stutter.[70] The results showed us how the impact of stuttering on the speaker and others in their environment has the potential to be managed through a novel and beneficial integrated treatment philosophy.

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