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Cognitive Behavioural Therapy (CBT) for Stuttering Disorder. A Case Study.

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Abstract

This paper examines the benefits of using CBT-techniques as a therapeutic tool within the treatment of stuttering. Stuttering is a complex disorder that involves not only speech disfluencies but also psychological and interpersonal problems as a consequence of the interaction of thoughts, emotions and behaviour. This case study describes CBT carried out with a young woman with stuttering difficulties who experienced sustained improvement in psychological functioning as a result of the therapy. The therapy consisted of ten weekly sessions and five booster sessions. The therapist systematically used a number of different cognitive interventions together with her specific knowledge of stuttering in guiding the client. The client´s experiences of therapy outcome were obtained on three different occasions, and the last was obtained three and a half-year´s after the last session. The present paper argues that the field of stuttering treatment would benefit from combining the established methods and principles in speech-language pathology with the theoretical framework and methodology of CBT.

Key words

Cognitive behavioural therapy, CBT, stuttering, stammering, case study, speech-language pathology and therapy

Background

The purpose of the present paper is to investigate whether Cognitive Behavioural Therapy (CBT) can be a useful tool in the treatment of stuttering difficulties and to describe the application of CBT to the stuttering treatment through a case-study.

Stuttering is a speech fluency disorder also referred to as stammering. The phenomenon of stuttering appears in all cultures and is mentioned in sources at least 4000 years old (Guitar, 2006). The disfluencies usually appear in early childhood. Early childhood stuttering may be either transitory, disappearing spontaneously within 18 months with no or minimal treatment, or persistent, where the child continues to stutter during a minimum of three years (Guitar, 2006). Stuttering may become more severe as the child grows into adulthood. The prevalence of stuttering is about 1 % and the incidence is about 5 %. The male to female ratio in school children and adults is about 3:1. Stuttering has no single known etiology and may be caused by factors which vary from person to person. A multifactorial perspective includes constitutional, developmental and environmental causes. In the young individual, stuttering may begin somewhat uncomplicated, manifested mainly as speech disfluencies, but gradually becoming more complex as the person reacts to the disfluencies by developing escape and avoidance behaviours, as well as personal coping strategies. Stuttering thus develops into a multifaceted disorder, manifested not only in speech disfluencies but also in various psychological and social consequences, i.e., secondary problems. There is considerable evidence that chronic stuttering in adolescence and adulthood is commonly associated with higher than normal levels of social anxiety (Messenger, Onslow, Packman, & O'Brian,2004; Blumgart, Tran, & Craig, 2010; Mulcahy, Hennessey, Beilby, & Byrnes, 2008; Iverach, O'Brian,et al., 2009).Thoughts, emotions and behaviours are interwoven and interactive as they shape the "picture of the problem". Feelings of frustration and helplessness usually accumulate over the years, leading to coping behaviours and a lifestyle that may be highly constraining. The experience of negative listener reactions from communication partners (Mulcahy et al.2008) can further aggravate the symptoms. The discomfort listeners experience can manifest itself in a large variety of nonverbal behaviours like wincing, rolling one`s eyes or avoiding eye contact, holding one`s breath, turning or walking away or looking afraid or pained. Another manifestation of discomfort takes the shape of the "conspiracy of silence"; not talking about the stuttering or even acknowledging its existence (Starkweather & Ackerman, 1997).

The complex phenomenon of stuttering has engaged researchers and clinicians over the years (Sheehan, 1970; Van Riper, 1971; Starkweather et al., 1990; Guitar, 2006; Rustin et al, 1995, Shapiro1999, Manning 2001, Zebrowsky et al, 2002, Alm, 2005). Stuttering, like other kinds of disorders with psychological underpinnings of anxiety and depression, can best be understood in terms of the functioning of the whole organism rather than as an isolated disorder (Van Riper, 1971). The core behaviors of stuttering are repetitions, prolongations and blocks (Guitar, 2006). The psychological/social manifestations associated with stuttering can be divided into four different subtypes, cognitive, behavioural, physiological and affective. Typical cognitive distortions are for example s*elective perception* in which the individual might be concerned with the fact that he or she stuttered on one particular word while ignoring the fact that s/he got the message across with relativ fluency. *Self-focused attention* is another cognitive symptom in which the person who stutters becomes more and more increasingly absorbed with the thought of getting the message across as fluently as possible, oblivious to the negative impact this narrow focus has on the interaction with the communicative partner. Typical behavioural symptoms are *escape and avoidance* which may involve avoiding particular words or situations, and *taking control*, for example, by not allowing the conversational partner to enter the conversation. Physiological symptoms involve typical physiological reactions to fright, such as trembling, palpitation, blushing and

muscular tension**.** Affective symptoms may vary from person to person. A common denominator in persons who stutter is that negative feelings influence their lives in a disproportionate way. *Fear and anxiety* may spring from the fact that the person does not know when and if s/he is going to stutter and is unwilling to expose her/his stuttering, thereby creating a mindset of insecurity and fear. Individuals often experience anxiety when they overestimate the probability of occurrence of a feared event and its potential cost while simultaneously underestimating their own ability to cope (Beck & Emery, 1985). Feelings of anxiety and uncertainty easily become a vicious circle, which, in turn, can result in a constant feeling of *depression*. A common emotion associated with stuttering is *anger,* either directed inwards, towards the person her/himself, or towards impatient conversational partners. Other typical emotions associated with stuttering are feelings of *shame and guilt*. The person is ashamed of not being accepted as a non-fluent speaker and feels guilty about distressing the conversational partner. Unexpected episodes of stuttering may also lead to a sense of *helplessness* and *loss of control*. Gradually, in the course of the therapeutic process, it is common for a sense of *sorrow* to appear. This feeling springs from the realization of lost opportunities in life due to negative choices.

Existing methods of intervention focus either on the speech, i.e., on reduction of the core behaviours, or on reducing the impact of stuttering on communication and life. So called *fluency shaping therapies* attempt to achieve fluency through speech therapy. The focus of intervention is rhythm, tempo, breathing, articulation and relaxation. Another method is to use an electronic delayed auditory feedback (DAF) devise, which induces the user to speak slowly and fluently as a result of hearing his or her voice delayed by a fraction of a second (Kalinowski & Saltuklaroglu, 2006). Secondary stuttering symptoms, including speech-related fears and anxieties, are not treated since it is assumed that these will disappear as the person who stutters learns to speak fluently. These methods are known for producing fluency in the low-stress contexts of the speech clinic while being ineffective in stressful "real-life" situations outside of the speech clinic. Within another established stuttering methodology in speech-language pathology – *stuttering modification therapy* - the goal of intervention is to help clients accept their stutter, reduce speech-related fears and anxieties and help clients to become better, and more confident, communicators despite stuttering. The most well-known stuttering modification therapy is the *non-avoidance therapy* developed by Charles Van Riper (1973).

CBT has an approach that fits very well with the second type of intervention methodology: the stuttering modification therapy. Cognitive aspects of stuttering have been recognised for some time (Sheehan, 1970; Van Riper, 1971). "The success of CBT in treating a wide variety of behavioural disorders, including communicative anxiety, should be viewed as endorsement of the wisdom that they can be used to combat speaking fears and anxieties in stuttering" (Ratner, 2005, p.178). In CBT the stuttering behaviours can be placed within a wider perspective and there is also an additional main focus, namely the resources of the client. The therapist looks beyond the diagnosis and the symptoms with the aim of discovering what cognitive symptoms the client suffers from as well as her/his personal strengths. Each client thus has a profile of psychological and/or interpersonal vulnerabilities which are triggered by different situations and contexts. In addition, most individuals with stuttering symptoms suffer from feelings of shame and guilt. It is important to emphasize that while CBT focuses on psychological

problems, a cognitive framework does not in any way exclude the incorporation of fluency techniques within the treatment. CBT has been increasingly used in the treatment of individuals who stutter in the U.K. (Biggart & Cook, 2005, Fry 2005, Biggart et al., 2006) as well as in Australia (Menzies & Co, 2008, Menzies & Co, 2009) and in India (Reddy et al, 2010). In these studies cognitive treatment was associated with sustained improvements in psychological functioning. In Sweden CBT is a quite new approach within the area of speech and language pathology. This case study is a first attempt to show that a cognitive approach can be successfully applied to therapy with a client with stuttering symptoms.

More specifically this study aims to:

1. describe the therapeutic process
2. illustrate applications of different kinds of cognitive and behavioural techniques at different stages in the therapy
3. identify cognitive distortions made by the client
4. describe and identify manifestations of professional speech- and language expertise
5. show how the client experienced therapy outcome.

Method

Therapist

The therapist (the author) was a speech and language therapist who had a basic education in CBT. Her superviser was an experienced speech and language therapist and researcher with no formal education in CBT. During the entire therapy the therapist also received supervision from an authorised therapist specialised in CBT.

Client

Informed consent for participation in the study was obtained from the client. Following the guidelines set out by Clifft (1986), the case material in this article has been modified to protect the client confidentiality and privacy. However the basic aspects of the symptoms and problems have not been altered.

The client was a 25-year-old woman with problems related to stuttering. She had two academic degrees but worked in an office with tasks that she was over-qualified for. She had a boy-friend and many friends. Her overt stuttering was considered mild to moderate. Her eye-contact was good. She had speech anxiety in different situations and low self-confidence. The client avoided certain words, people and social situations which she felt worsened her stuttering. Her most feared situations, in which her stutter was particularly severe, were when presenting an opinion at work and while talking on the phone. She could not remember the age of onset of stuttering but she had some embarrassing and painful memories from primary school. She never went to a speech therapist because her parents had told her that she would grow out of it. The following citation is from her auto referral:

> *My stuttering has had a strong impact on my entire life. My stuttering is a handicap in many situations such as telephone conversations, oral exams, job interviews as well as in life in general. My way to cope with the difficulties is to avoid certain difficult situations.*

Design and analyzis of the study

The therapy consisted of ten weekly sessions, 45 minute, at the speech clinic at Lund University Hospital and five additional booster sessions three months after the termination of therapy. The data consist of *session notes* written by the therapist, *audio recordings* and *written comments* made by the client. All material was examined and analyzed by the author and her supervisor separately.

Session notes

During and after each session the therapist kept notes regarding both reflective comments and specific problems described by the client. The therapist also wrote down the client's verbal conclusions after each session including the client's suggestion of "today's theme". Added to the session notes were written documentation made by the client, describing the outcome of the homework between sessions. The notes were thoroughly read and analysed independently by the author and an experienced speech-language pathologist in order to describe contents and processes of the therapy as well as to find examples to illustrate central concepts in CBT and to identify evidence of speech-language expertise.

Audio recordings

Ten of the therapy sessions were audio recorded with the original aim to be used for supervision of the therapist. The treatment was carried out in Swedish and all quotations have been translated into English by the author.

Four out of ten recordings were selected for subsequent analyses; one from the early phase of therapy, two from the middle phase and the very last session. The selected recordings were transcribed orthographically and analyzed independently by the author and an experienced speech-language pathologist focusing on dysfunctional/less helpful thoughts also known as *cognitive distortions* and *cognitive* and *behavioral clinical interventions* (Beck et al., 1979, 1985; Beck, 1995, 2005; Freeman, 1990). In addition, examples of the therapist's *speech-language expertise* were identified in the session notes, and analyzed. These consisted of manifestations of knowledge concerning language use, pragmatics and communication in general and topics related to stuttering in particular.

Written comments

The client was asked to write down her thoughts concerning the therapy she received a) after the first ten sessions, b) after five additional booster-sessions and, c) three and a half years after the termination of the therapy. The question the client was asked to consider was: "How did you perceive the Cognitive Behavioural Therapy?"

Results

The therapeutic process

The analysis of the session notes made by the therapist was made primarily in order to describe the therapeutic process. In the first session the aim, contents, and frame of CBT were introduced. It was clarified that the therapy would not provide the client with a

cure, but with a greater understanding of her problems and enlarged focus on her resources in order to better cope with challenges in real life. The client was encouraged to inform the therapist of important aspects of her case history, in relation to stuttering as well as to her life in general. The client was also asked to formulate what problems stuttering caused her at this particular time of her life, as a basis for setting up therapy goals.

Beginning in the second session, the client was trained by the therapist to make a first analysis in order to identify her automatic thoughts by using a DTR (Dysfunctional Thought Record scheme; Beck, 1995). Table 1 shows the first analysis made by the client in co-operation with the therapist.

Table 1. Self-monitoring in order to identify automatic thoughts.

Situation	*Automatic thought(s)*	*Emotion(s)*	*Outcome*
I am in conflict with my boss. I want to state an opinion.	There is a big risk that I'm going to stutter. He is going to laugh at me. I'm a coward for being afraid of saying what I want to say.	Anger towards the boss because he doesn't understand. Anger towards myself. Fear of making a fool out of myself. Fear of not to be taken seriously.	I´ll talk to him another time.

During the consecutive sessions the therapist and client continued to work with a number of DTR schemes in order to identify the most frequently occurring dysfunctional thoughts the client had experienced and to gradually substitute dysfunctional thoughts with more functional and realistic ones. Some of the client's *intermediate beliefs* (Beck, 1995) linked to stuttering were also examined. These included ”Stuttering is something to be ashamed of”; “Stuttering seems ridiculous to some people”; ”I'm not like other people”, “People who stutter are handicapped, embarrassing and shameful.” The therapist assumed that an underlying *core belief* (Beck, 1995) of these might be: “I'm defective” since the client frequently used the word “perfect”.

The main part of therapy can be characterised by the following changes in the therapeutic process: gradually, the client was able to more easily recognise her *automatic thoughts* (Beck et al., 1979, 1985; Beck, 1995; 2005; Freeman, 1990) and more independently make subsequent analyses. Other changes were that the client through her *homework* (Beck et al., 1979, 1985; Beck, 1995, 2005; Freeman, 1990) practised alternative patterns of behaviour in combination with her new cognitive appreciations, like challenging her fear in different situations instead of avoiding them. In collaboration with the therapist the client examined interpretations of the comments concerning her stuttering made by other persons. The analysis also included how the client regarded herself, other people, and the future (the *Cognitive Triad*) (Beck et al.,

1979, 1985) in her idiosyncratic manner. Characteristic statements from the client were: "I'm defective"; "Other people are condemning – they find it ridiculous to stutter" and "The stuttering prevents me from obtaining the job I want".

During this middle phase of the therapy the therapist frequently used *Socratic questioning techniques* (Beck, 1995). As the client became more confident and increased her awareness of her *cognitive distortions* she began to work more independently. She experimented with different DTR schemes as homework. One of the schemes is shown in table 2.

Table 2. Self-monitoring in order to identify automatic and alternative thoughts.

Situation	*Automatic thought(s)*	*Emotion(s)*	*Alternative thought()*	*Alternative feeling(s)*	Outcome
I have to make a phone call at work to order a specific item beginning with a vowel.	This won't work. I don't want to. I always stutter on words with initial vowels. I will block on these words. Maybe I can order by e-mail instead, but it might take much longer time.	Aversion Nervousnes s Stress	Ok, I know that vowels are difficult sounds and I might stutter but who cares? Before I make the phone call I can sit down for a while and relax, concentrate and breathe calmly and then I can make the phone call.	Indifferenc e Less anxiety	Make the phone call

At the next session, the client told the therapist that she was very pleased to actually have made the phone call. In addition, the call was okay. "I stuttered a little but I didn't care so much".

One example of homework (to challenge: "I'm afraid to stutter among other people who stutter") was to visit a meeting of the local Association for Persons with Stuttering Problems. Another was to talk to one of her parents about her stuttering. She also read an educational book on cognitive therapy (*bibliotherapy*; Beck, 1995) and tried to recognise some of her own cognitive distortions. One assigned homework of bibliotherapeutic character was to read a booklet on stuttering and analyse her reactions to the content ("Interesting how a small booklet, with the only purpose to be informative can cause such strong feelings in me" was one of her reactions). Another homework was to write down how she experienced other persons` reactions in relation to her stuttering ("People often interrupt me because they get impatient", "People think I'm less talented because I stutter") and to analyse possible alternative interpretations in co-operation with the therapist.

Each session was concluded by asking the client to write down her idiosyncratic idea of the theme of today's session ("What did you perceive was the theme of today?"). Issues that were discussed were: perfectionism, normality, and shame compared with guilt. She was also asked to write down "today's insights" *(cognitive repetition*). Examples of such

conclusions were: “I’m the only person who can fight against my fear”; “It takes time to change”; “I usually succeed when I concentrate on something special”.

Applications of cognitive and behavioural techniques
The analysis of audio recordings was made mainly to illustrate the application of various forms of cognitive and behavioral techniques during different stages in the therapy process in order to describe and to identify manifestations of speech- and language expertise.

Cognitive interventions
Various cognitive interventions used by the therapist were identified and charted during the four sessions. Every identified instance of intervention consisted of a single utterance or a sequence of utterances. As shown in Table 3 some techniques, such as identification and modification of cognitive distortions and clarification of idiosyncratic meaning, occurred more frequently during the first analysed session. Other cognitive techniques were examining facts, reattribution, decatastrophising and alternative interpretations.

Table 3. The frequency of different cognitive interventions.

Cognitive interventions	Session 2	Session 5	Session 9	Session 15
Identifying and modifying cognitive distortions	7	1		1
Clarifying idiosyncratic meaning	7	2	2	1
Examining facts	3	2		
Reattribution	1	1	2	1
Decatastrophising	3		1	
Listing alternatives		1	4	1
Enlarging perspective		1	1	
Cognitive repetition			1	1

The following example from session five illustrates how the client was guided to identify and modify a cognitive distortion:

> *Client:* *I’m worried about not knowing what I do and how I look when I stutter. I don’t even know what I might want to change.*
> *Therapist:* *We can make a video recording?*
> *Client:* *Never!*

Therapist: Do you think you can change something if you don't know what the problem is?
Client: Hmm.
Therapist: Do you think you can change your stuttering when you don't know exactly what you are doing when you stutter?
Client: Aha, you mean that I need to know? Aha, now I see (laughter).

The next examples from three different occasions show how the therapist tries to clarify the idiosyncratic meaning of certain expressions used by the client:

Therapist: What do you mean by /"bad treatment" /"bad things"/ "crowd of people"?

After the therapist had used *reattribution* the client expressed the insight: "Other people's bad feelings about my stuttering are not only my business. They have to take care of their feelings and I have to take care of mine".

Behavioural intervention
In between sessions the client practised alternative patterns of behaviour. On the other hand, the therapist used a behavioural intervention only once in the four transcribed sessions. On that occasion, a visual analogue scale, VAS (Wewers et al., 1990) was used in order to measure the client's communicative problems in different situations.

Cognitive distortions
Different cognitive distortions, orally expressed by the client, were found in all four sessions. These were identified as *dichotomous thinking, catastrophising, disqualifying the positive, emotional reasoning, personalization, arbitrary inference* (the most frequent) and *fortune telling.*

Professional speech-language expertise
During three out of four recorded sessions examples were found of how speech-language expertise was applied by the therapist. Some of these examples dealt with communication competence in general such as requirements of a well-functioning conversation. Others were related to more specific problems such as deliberate substitutions of words. Still other concerned more specific topics, such as information about genetic factors in stuttering, the origins and development of stuttering, presentation of alternative stuttering therapies and information about the local Association for Persons with Stuttering Problems.

The client's experience of therapy outcome
Information regarding the client's evaluation of the intervention was obtained by the client's written comments on three different occasions.
An excerpt from the client's written evaluation after the tenth session:

I've partly changed my way of thinking. As a consequence, I'm able to expose myself to new challenges. I have learnt to think in alternative ways when I block. I don't speak fluently and I'm as good as everybody else. It is not the way I say something that is important, but that I actually say what I want to say. It feels good to have discovered that it is possible for me to change my stuttering problem. My sorrow is bigger

than my fear. I have not achieved my original goal: to inform my colleagues that I stutter" but I have discovered new goals during the course of therapy. Still, I'm unsatisfied not having achieved my original goal (to tell her colleagues about her stuttering).

An excerpt from a second written evaluation made after four months when the client had received five additional booster sessions:

I have obtained more knowledge and that makes me feel more secure. I have begun to accept that I stutter. I am not that kind of person anymore. I do not accept to be treated like I was nobody.

The client's written evaluation three and half-years after the last session:

When I was first offered stuttering treatment within a cognitive framework, I accepted with some hesitation. My personal goal at that time was something entirely different, namely to get rid of my stuttering. In my earlier studies in psychology I had read about cognitive therapy without realising how that method could be of any use to me. In the beginning of the therapy I thought that the conversations between my therapist and me was intellectually stimulating and challenging. I found a person to whom I could address my questions and who sometimes dared to ask me provoking questions about my stuttering. I was allowed to be angry and to cry. The most strange thing, however, was that I could look at myself and at my situation with a sense of humour. My personal goals have changed over time and today, three and a half years after ending therapy, I am a person with greater experience and with good self-confidence. Basically my ways of thinking have changed. I always try to pay attention to the way I think and if I return to negative thinking. Whenever that happens, I try to use the cognitive methods that I have learnt. Most important for me was to discover that "what matters is not ***how*** *I speak but* ***what*** *I say". I am fortunate to have met a good therapist in whom I have a great confidence. Today, when teaching teenagers with bad self-esteem, I have great use of her advice and the work we did together in therapy. Cognitive therapy demands hard work during a long period of time. Today my stuttering is acceptable to me. If my needs will change in the future, I know that cognitive therapy is a helpful tool that works for me.*

Discussion

In spite of the methodological concerns, mentioned below, it was possible, as a first attempt, to discern crucial aspects of the therapeutic process.
One purpose of trying to quantify cognitive as well as behavioural interventions on the basis of the transcriptions from the audiotapes was to explore how types and occurrence of interventions might change during the course of the therapy. The Socratic questioning strategies were not easy to demarcate and separate from each other since they were not always explicitly expressed in single utterances. Practising CBT is more a question of a general Socratic approach than using specific techniques. The therapist systematically used a number of different cognitive interventions. Interestingly, very few behavioural modification techniques were used during the fifteen sessions but the client's homework

consisted mostly of behavioural tasks. There was no occurence of fluency-shaping techniques. One likely explanation for this is that the client experienced her overt manifestations of stuttering as mild to moderate. Another likely explanation is: by working with the anxiety the client indirectly experienced more fluency.

The author does not claim to have charted all cognitive distortions or therapeutic interventions and does not believe it possible to do so. Instead that this and future qualitative studies might contribute to a deeper understanding of the complexity of stuttering as well as to the development of new therapeutic skills in stuttering therapy.

The extent to which the therapist used her professional speech-language expertise constituted another part of the analysis. Not unexpectedly, not only specific knowledge of stuttering but also topics concerning general communicative competence, like "the importance of eye-contact" and " the difference between speech, voice and language" were found. Further studies may point to frequently existing themes/topics that cognitive therapists without speech language expertise would benefit from learning about if they want to treat persons who stutter. Examples of speech-language expertise were found in all written sessions. This indicates, tentatively, that having a therapist who is competent in the field of speech-language therapy as well as CBT might be very helpful when treating persons with stuttering problems. This also shows that established stuttering methodology in speech-language pathology can be successfully combined with the overall theoretical framework and methodology in CBT.

The client made written comments on her treatment at three different points in time. Directly after the tenth session she made an evaluation indicating that she had acquired new cognitive insights even though she had not achieved her original goal, which was to tell her colleagues about her stuttering. During the course of therapy, the client set up other goals, which were fulfilled. The second evaluation was made after another four months when the client had had five additional booster sessions. This evaluation indicates that the client had not only increased her self-awareness but was also gradually on her way to accept her stuttering. The third evaluation, made three and a half years after the fifteenth session, showed that CBT not only provided the client with new insights and skills but also offered the possibility of self-guidance. It is obvious that successful therapy does not end with the formal termination of therapy, but continues as an internalised inner dialogue. The overall purpose of CBT is to acquire tools as well as insights. The client expressed that her self-image had changed in a positive way, which in cognitive terms entails that her negative assumptions in relation to herself and her stuttering had changed in a more positive and realistic direction. There are several influential factors that contributed to the positive evaluations made by the client. She showed a good ability for introspection, her motivation was high and she took a great responsibility in both the therapy sessions and in carrying out her homework between sessions. The client and the therapist, referring to the third evaluation, seemed to have had a good therapeutic alliance.

The session notes consisted of data collected from both client and therapist. All notes were shared with the client and a copy was handed over after the last session. This illustrates the *collaborative working alliance* (Beck, 1995) between therapist and client with a transition from a more traditional asymmetrical to a more symmetrical discourse. The written evaluations indicate that a lasting improvement when challenging stuttering problems involves many changes not only in how we speak but in the way we feel and

think about speaking and about stuttering, as well as what we think about ourselves. Of future interest might also be to study how clients' overt stuttering behaviours are related to therapy outcome and/or how they might change over time.

CBT for stuttering disorder

Results from the present and earlier studies (Lundskog, 2000; Lundskog et al., 2004; Lundskog et al., 2005; Riskaer, 2000; Biggart & Cook, 2005; Fry 2005; Biggart et al., 2006; Menzies & Co, 2008; Klein, 2004, Reddy et al, 2010) indicate that CBT is a useful method for persons with different problems related to stuttering. The method has a predefined structure, which helps both the client and the therapist to focus on well-defined goals of intervention. The collaborative way of working calls upon self-reflection in both the therapist and the client which, in turn, paves the way for personal development. The analysis of problems goes hand in hand with an analysis of the client's personal resources. In cognitive therapy the perspective is extended towards problems in communicating with other people rather than on individual stuttering symptoms.

CBT offers an opportunity to address all areas highlighted by the ICF, i.e., body structure, body function and activities and participation (Yaruss, 2007). The evaluations above show how therapy affected these aspects in this particular case. Another important aspect of CBT is the time limitation. One can speculate whether short-term intervention is sufficient for an adult who has experienced problems in stuttering for many years. It is impossible to give a simple answer to this question since problems as well as resources are individually based and, as a consequence, the goals with intervention vary to a great extent. CBT does not offer a cure for stuttering but offers tools for working with stuttering problems. The therapy promotes an increased awareness preparing the client with a readiness to handle new and unexpected challenges during her/his course of life in a more functional way. Thus it is not enough to realize that something is working, it is also important to understand why and in what ways CBT works for that particular individual. It should also be emphasized that the learning of fluency shaping techniques is not contradictory within a cognitive framework. The difference is that the client undergoing CBT hopefully will learn to identify strategies of treatment effects "What works for me under what conditions?" (Kreamer, Wilsson Fairburn, & Agras, 2002) and realizes "when" and "why" fluency shaping techniques can or cannot be applied in different speaking situations.

The significance of professional speech-language expertise should not be underestimated when working within a cognitive framework with a disability like stuttering. This applies with reference to aetiology and development of stuttering and also to the intrinsic features of the person who stutters, which include loss of control, helplessness and fear. It is also important to have a more general knowledge of interpersonal communication. Experience of working with clients with different kinds of communicative disabilities can probably offer a deeper understanding of the multidimensional disability of stuttering.

Conclusions

The findings presented in this paper together with other reports indicates that CBT strategies can be effective in reducing severity of social and anxiety problems related to stuttering, reducing the dysfunctional attitude and in enhancing assertiveness and improving quality of life. The method emphasizes the importance of working with

underlying thoughts, emotions, attitudes and beliefs without ignoring overt behavioral aspects of the stuttering problems. CBT is based on a collaborative relationship that helps the individual client to focus on problem solving in a structured and systematic way. Using a Socratic approach encourages the individual to find her/his own problem solving strategies rather than have them handed over by the therapist. By drawing on and adding to existing coping-skills the therapist can provide the individual with a greater self-reliance and confidence in managing changes in her/his life. The method is flexible and adapted to the individual and changing needs of each client. The ultimate goal of CBT is for the client to be able to deal with her/his problems in a more functional way.

The various forms of written documentation increase the possibility of achieving a coherent understanding of cognitive therapy and its application to clinical practice. Future research will expand the understanding of cognitive factors, which is likely to result in enhancements within the methods used to help people adjust to stuttering, as well as in other forms of intervention. In addition, qualitative methodology enables the incorporation of the client's perspective, a feature that is less explored in quantitative studies (Leahy, 2004)

In future studies it would also be relevant to use standardized evaluation instruments, both regarding stuttering problems e.g., the Wright & Ayre Stuttering Self-Rating Profile (WASSP)(Wright et al, 2000), but also regarding depression, anxiety and social phobia. Overt stuttering could also be measured in different ways.

In the future it would be interesting to compare different therapies for persons who stutter; a combination of CBT and speech and language interventions with CBT only and with speech and language interventions only. The importance of specific knowledge of stuttering and communicative skills may be facilitating for the cognitive therapist. In addition, the author believes that CBT may have a great future potential not only for stuttering intervention but also for other disorders within the field of speech and language pathology.

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