Chapter 9

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Multidimensional Individualized Stuttering Therapy (MIST): An effective approach for people who stutter

Purpose of the chapter

The main purpose of this chapter is to present an approach which emphasizes individual-centered care and personal values in daily life settings. This approach is termed *Multidimensional Individualized Stuttering Therapy*, with the acronym MIST. The therapy format in MIST is individual and holistic, and it is grounded in practice-based evidence. Based on personal feedback from people who stutter (PWS), MIST was developed and systematized by Sønsterud (Sønsterud, 2020; Sønsterud, Halvorsen, Feragen, Kirmess, & Ward, 2020).

MIST combines value- and awareness-based elements from *Acceptance and Commitment Therapy* (ACT) with stuttering and speech modification interventions. The value-based focus in the approach is anchored within pluralistic, goal-led therapy (McLeod, 2018), and within the ACT perspective (Harris, 2019; Hayes, Strosahl, & Wilson, 2012). This chapter does not cover all aspects of MIST. However, some philosophical principles and clinical considerations are highlighted, as well as describing in more detail the elements in the therapy. The MIST approach is grounded in the idea that the speech-language therapist (SLT) is merely a guide or a provider of resources, which someone might benefit from at a specific time point during his or her life journey. The approach is experience-based, and the person's experience of exploring therapy elements and/or tasks and finding them helpful, or not, is highlighted in the evaluation process. In many ways, the person who stutters and the SLT should aim to construct something meaningful together, to reflect this collaborative perspective. In MIST, the SLTs are regarded as improvisers, crafters, or designers (McLeod, 2018), who can learn from clients. In MIST, the SLT must work flexibly, and in collaboration with the person him- or herself, to achieve significant changes in daily personal life contexts. The MIST approach

is integrated, and combines various therapy elements to form a multidimensional, individual package.

Integrative stuttering therapy considered within a broader perspective of outcome goals

The stuttering literature often divides stuttering treatment into two main traditions, 'Fluency Shaping Therapy' and 'Stuttering Modification Therapy'. At the same time, a number of therapy approaches combine various elements from the two therapy traditions, which some authors have called 'integrated' or 'integrative' therapies (Guitar, 2014; Logan, 2015; Shapiro, 2011; Ward, 2018). These often highlight the principle that stuttering treatment should be tailored to each person's needs and wishes. Integrated or combined therapy approaches are already well established within the field of fluency disorders, and people who stutter often benefit from a mixture of behavioral and emotional- or cognitive-based approaches (Beilby, Byrnes, & Yaruss, 2012; Langevin, Kully, Teshima, Hagler, & Narasimha Prasad, 2010; Menzies et al., 2019). However, to optimise therapy outcomes, the relative weighting given to specific elements in combined approaches needs to vary from individual to individual (Manning, 2010; Shapiro, 2011; Sønsterud et al., 2020; Ward, 2018). Stuttering- and speech-modification elements explored in therapy might therefore be used differently and flexibly, if the aim is to maintain changes to speech, communication and/or social behavior, either permanently, or during a period of importance for the person. Stuttering treatment often requires careful clinical management of both the stuttering itself and its associated psychological consequences, in order to prevent the development of psychological and/or social difficulties (Iverach et al., 2017). In clinical practice, one can often observe that a focus on stuttering and speech modification approaches can contribute to a reduction in the level of fear, an increase in self-esteem, and acceptance of oneself as a person who stutters. Similarly, a reduction in the level of fear and an increase in acceptance and self-esteem can facilitate improved communication skills and ease of participation in daily-life-settings (Jørgensen, Sønsterud, & Reitz, 2008).

Carter et al. (2017) found that self-efficacy emerged as a strong positive predictor of quality of life for adults living with stuttering, while studies by Hayhow, Cray, and Enderby (2002) and Sønsterud, Feragen, Kirmess, Halvorsen, and Ward (2019) found that gaining control over stuttering was highly valued by the majority of participants in their cohorts. Lack of control, as perceived by the speaker, has often been associated with stuttering (Helgadottir, Menzies, Onslow, Packman, & O'Brian, 2014). There is also some evidence suggesting that the subjective experi-

ence of speech control can be a significant predictor for a positive therapy outcome (Craig & Andrews, 1985; De Nil & Kroll, 1995). Individual stuttering approaches may also require a substantial amount of self-discipline and home-based practice over time in order to maintain positive changes.

It is assumed that a wide range of factors can influence the treatment process and outcomes for people who stutter. These relate to individual clients, clinicians, support (or lack of) from others, social and environmental aspects, the quality of the therapeutic alliance, etc. (Sønsterud et al., 2019). For many people who stutter, daily life with a speech disorder that potentially affects their social interactions can exact a psychosocial and psychological toll. According to Craig, Blumgart, and Tran (2011), there are three unique contributors to adaptive outcomes: self-efficacy, social support and healthy social functioning. Clinical experience suggests that the individual's general social functioning can be a decisive factor affecting therapy outcomes. Other factors include the degree of awareness, social and communication skills, overall speaking ability, and self-discipline. The intensity of therapy, the types and degree of obstacles experienced in daily life, and the individual's level of motivation and willingness to invest time in independent training are also influential. The structure of the therapy process is also important – for example, some elements may need to be introduced and established within the clinic setting before they can be successfully transferred to other environments.

Ease of participation in everyday communication settings

The individual's experience of their own ability to communicate is an important factor and, according to Karimi et al. (2018), the person's satisfaction with communication in everyday speaking situations is a primary therapy outcome reflecting "a fundamental treatment gain that overarches all stuttering treatments" (p. 82) . To address these issues as part of the treatment, SLTs need to explore speaking situations that matter the most to the person who stutters. If we consider the meaning of the word 'communication', the origin Latin word is 'communicare', and means 'to share'. However, several definitions are needed to cover this concept more broadly. Communication is to exchange information by speaking, writing, or using some other medium (Summers, 2009), and is also conceptually related to the successful conveying or sharing of ideas, thoughts, and feelings. According to Hayes (2005), people use language in both public and private domains: public use includes forms such as talking, gesturing, writing, painting, singing, dancing and acting, while private use includes forms such as thinking, imagining, day-dreaming, visualizing, planning, fantasizing and worrying. I believe it is a common un-

derstanding that improving communication skills by sharing thoughts and feelings and actively participating in a value-based and meaningful life, may be the most important goal of therapy, regardless of whether you are working within the stuttering field or not.

Communication is multi-faceted, and much of our communication is achieved through non-verbal means, or expressed through prosodic factors such as tone of voice. According to DeVore and Cookman (2009), only about 7% of our meaning is conveyed through the words we use, while tone of voice conveys 38% of meaning, and body language the remaining 55%. Nevertheless, it seems that the focus for many people who stutter is the level of fluency they experience when speaking words and sentences. It is essential to keep this perspective in mind when working with people who stutter. Finding our most natural or most efficient voice is an important factor in speech and communication settings. Effective speech production requires coordination between three interrelated motor speech subsystems: the respiratory system (lungs), the phonatory system (larynx) and the articulatory system (oral and nasal cavities, tongue, lips, teeth and soft palate) (DeVore & Cookman, 2009).

The aim for many SLTs is to best serve the people who seek help. When people who stutter approach a clinic, they usually want to change something in their lives, and whatever best serves this purpose can be considered as the truth in this helping process (Ramnerö & Törneke, 2008). Bothe and Richardson (2011) use the term *personal significance* to refer to goals, and changes that are of high value to the individual. Ingham and colleagues suggest that therapies may require changes that are designed to deal with what is especially significant for the individual (Bernstein Ratner, 2005; Bothe & Richardson, 2011; Finn, 2003; Ingham, Ingham, & Bothe, 2012), on which the MIST approach is based.

Clients' motivational readiness for change

Psychologists have proposed a variety of theories to explain motivation (Cox & Klinger, 2004). Based on Seo et al.'s 'work motivation model' (Seo, Bartunek, & Barrett, 2010), a person's feelings may play an important role in motivation. This model includes three core components of motivation: generative-defensive orientation, effort, and persistence. *Generative-defensive orientation* is characterized by active engagement to achieve anticipated positive outcomes, or it can indicate the opposite – defensiveness. The generative orientation might be reflected in behaviors such as exploring, innovating or risk-taking. *Effort* refers to how much time and energy a person devotes to complete a given task, and *persistence* re-

fers to maintaining an initially chosen course of action over time (Seo et al., 2010). People who stutter need to be ready for change. In the study of Sønsterud et al., (2019), the person's motivation was strongly correlating with treatment outcomes six months after the end of therapy. In MIST, motivation is regarded as comprising both psychological and socially, and refers to all goal-related components described above.

Multidimensional Individualized Stuttering Therapy (MIST) – some basic principles

The collaboration between the person who stutters and the SLT should be based on an agreed consideration of the individual's hopes and goals. MIST emphasizes the importance of working collaboratively, and regards the client as an active researcher in his/her own condition and everyday life. McLeod (2018) suggests that the client can be active in investigating the therapy process itself, and in developing opinions on what has been helpful or unhelpful in treatment sessions. The feedback from the 'investigator' (client) is incorporated into the MIST process, and it is important that the SLT makes space for the client's feedback, because each person is his/her own control and should be invited to give feedback throughout the whole therapy process. If the expected outcome is not achieved during the therapy sessions, the approach needs to be modified according to the person's own therapy goals and wishes.

Tailoring the right approach to each person's individual needs and goals is one major challenge in the field of fluency disorders, as well as in the MIST approach. With regard to stuttering management, Bloodstein (1997) highlights that the SLT should not disparage a person's goals and choices, as the person him/herself is competent to weigh the costs and benefits when considering therapy (Curlee & Siegel, 1997). However, in creating individually-tailored therapies, a broader definition of what constitutes 'improvement' is required, as well as SLTs needing to acknowledge the validity of a variety of outcomes (Bernstein Ratner, 2005). The World Health Organization's (WHO) (2018) classification system, the International Classification of Functioning, Disability and Health (ICF), is often used as a framework of stuttering (St. Louis & Tellis, 2015). It considers the effect of function, disability and health across a wide range of factors, and different aspects of life, including impairment in body function, activity limitation and participation restriction, and environmental factors (World Health Organization, 2018). The ICF has provided a framework for understanding and assessing stuttering and stuttering therapy in a contextual setting. This includes quality of life, overall well-being,

self-stigma, and social aspects which may be regarded as particularly important for people who stutter (Boyle & Fearon, 2017; St. Louis et al., 2017; Sønsterud, Feragen, et al., 2019; Yaruss, 2010).

MIST – an individualized, goal-led approach

Stuttering identity, stuttering acceptance and avoidance-behavior may be regarded as three important concepts in the field of stuttering, and may influence the clients' priorities regarding the goals and desired outcomes of therapy. Indeed, there is a need to be careful in defining what exactly 'improvement' entails for each individual in general (Sønsterud et al., 2020; Ward, 2018). Sønsterud et al. (2019) states that an individualized goal-setting approach in many ways mirrors the client's optimal level of functioning, and this was the main purpose of developing an extended form of the 'Client Preferences for Stuttering Therapy' (CPST-E). The CPST-E is one tool used within the MIST approach (McCauley & Guitar, 2010; Sønsterud, Howells, & Baluyot, 2017).

The original CPST covers a brief overview of therapy goals, the person's own considerations regarding their speech fluency, their ease of participation in different speaking situations, and being in-control. Items are rated on a Likert scale ranging from 1–5 (not at all important – very important). The extended version developed by Sønsterud et al. (2017) also includes two additional sections which measure motivation and expectations for therapy in more detail than the original version. The section 'Motivation and expectations' addresses five questions regarding personal characteristics, including aspects related to the person's motivation based on Seo et al.'s (2010) 'work motivation model'. It comprises questions probing: a) people's level of persistence (the maintenance of an initially chosen course of action over time), b) their degree of motivation to work actively with their stuttering, c) the amount of time they are willing to set aside for independent training, d) how much help and support they expect during the therapy period, and e) their expectations of the outcome. The CPST-E also includes open text units where people who stutter can specify their own goals and desired outcomes of therapy, their needs in order to achieve those goals, and other factors they consider important in their collaboration with the SLT. The form contains the following main question: '*Describe, using your own words, your goals and wishes for the therapy*'. This form is available in English, Norwegian and Swedish, and fits well with the ICF framework regarding personal and environmental factors as discussed by, for example, Yaruss and Quesal (2004), Logan (2015), and McCauley

and Guitar (2010). The form is available for anybody who is interested, and can be obtained by contacting the author.

According to Logan (2015), people "function most effectively when their daily activities are aligned with the goals or destinations that they hope to reach" (p. 469). McLeod (2018) claims that a person's goals can be stated, but cannot always be easily evaluated. The goals or tasks may therefore need to be broken down further into specific, meaningful and measurable sub-goals or tasks. This statement is in accordance with the work of Sønsterud et al. (2019, 2020), and is also integrated into the MIST approach. Pre-treatment reflections should take into account both personal goal-setting and decision processes which, in many ways, are integrated into the 'working alliance philosophy' (Horvath & Greenberg, 1989), which reflects the quality of the relationship between clinicians and clients. Thus, the direction of therapy must be taken from the people who stutter, at least when adolescents and adults are concerned.

As a form of behavior therapy which addresses emotions, MIST can involve committed action by the individual in work, educational, or social settings. MIST incorporates exposure-based strategies, and it is assumed that the choice to explore and transfer speech- and/or awareness-based actions into daily life settings may improve a person's speaking ability, confidence in communication, and quality of life. The principles of practice-based evidence are required in all interventions, and I therefore believe that treatment efficacy should be based on multi-factor measures, and should include client perspectives and functional outcomes (Baxter et al., 2015; Bothe & Richardson, 2011). Functional outcomes are of importance in MIST, and some examples of positive outcomes regarded in a broader perspective may be given here: being able to use the telephone, increasing social participation in life, finding a partner, or starting a meaningful education.

The importance of the working-alliance in stuttering therapy

The quality of the working-alliance is one of the causal agents which may influence therapy outcomes. Flückiger and colleagues (2018) describe how the "alliance represents a proactive collaboration of clients and therapists across sessions and in moment-to-moment interactions" (p. 330). The concept of the working alliance has its roots in psychodynamic theory (Wampold, 2015), and can be formally described as a proactive collaboration between clients and therapists across treatment sessions (Flückiger, Del Re, Wampold, & Horvath, 2018). It was Bordin (1979) who first named the relationship between a person seeking support and a clinician as the

'working alliance'. It has been suggested that the working alliance has its foundation in the following three processes: a) the emotional *bond* between the client and clinician, b) the extent to which the client and clinician agree on the *goal* of treatment, and c) the extent to which the client and clinician consider the treatment tasks as relevant (*task*).

According to Flückiger and colleagues (2018, 2019), it has been demonstrated that a client's opinion of treatment as effective or ineffective is influenced by their experience of the collaborative process in clinic (Flückiger et al., 2018; Flückiger et al., 2019). This is in line with the work of Manning (2010) and Plexico, Manning and Dilollo (2005, 2010). According to Zebrowski and Kelly (2002), individual stuttering therapy "allows the SLT and client to develop rapport – a trusting, cooperative, and respectful relationship that facilitates disclosure and change" (p. 41). It is therefore reasonable to believe that the therapeutic alliance also is of importance in stuttering therapy. It is worth questioning what is it that makes this relationship between the person seeking support and the therapist successful or unsuccessful. Process evaluations in stuttering therapy should incorporate consideration of the clinician-client relationship, and perhaps in particular from the perspective of the person who stutters (Sønsterud, Kirmess, et al., 2019). As the study of Sønsterud et al. is documenting, the relationship between people who stutter and SLTs affects the course of therapy and its outcomes. Therefore, the relationship really matters, and this importance is acknowledged within the wider community of people who stutter.

However, although there is already consensus that SLTs should openly and honestly discuss an individual's goals and expectations for therapy in general, there has been little previous investigation of the impact of personal motivation and the working alliance for people who stutter (Sønsterud, Kirmess, et al., 2019). Fortunately, over recent years, there has been an increasing interest in the therapeutic relationship as an evidence-based component of interventions in speech and language therapy. The findings of Sønsterud, Kirmess, et al. (2019) suggest that the working alliance that grows from describing, discussing and agreeing goals and tasks between a person who stutters and a SLT, is a critical element in successful stuttering therapy. Based on this research, it is recommended that evaluation of the working alliance, particularly from the perspective of the individual seeking support, should be incorporated into stuttering therapy. The findings indicate that how you feel about your SLT, and the content of the stuttering therapy, really matters (Sønsterud, Kirmess, et al., 2019). It is important for the person who stutters and the SLT to understand the specific goals, so that the SLT can identify appropriate approaches or activities. If something does not feel 'right' or relevant, it is important for the person to speak out – and the SLT to make room for this, and

to listen carefully. The MIST approach highlights the importance of open discussion around not only the person's goals for therapy, but also the tasks or activities to be incorporated in that therapy. It further suggests that incorporating evaluations of the working alliance at an early stage in the therapeutic process may help ensure that relevant goals have been identified and agreed, and that meaningful tasks are in place. Such evaluations can also help therapists and people who stutter to identify, acknowledge and repair challenges more easily if they arise. Tools for evaluating the working alliance are available, for example the Working Alliance Inventory – Short Revised version (WAI-SR) (Hatcher & Gillaspy, 2006). This tool was used in the study by Sønsterud et al. (2019) referred to above. WAI-SR is quick and easy to use, and explores the working alliance across the three domains of *bond*, *goal* and *task*.

The importance of personal and context-sensitive feedback

A prerequisite for change is that people who stutter themselves perceive the stuttering therapy as appropriate, effective and meaningful (Binder, Holgersen, & Nielsen, 2010; Bothe & Richardson, 2011; Collier-Meek, Fallon, & Gould, 2018; Ingham et al., 2012). However, according to Lambert, Whipple, and Kleinstäuber (2018), clinicians tend to hold overly optimistic views of their clients' treatment progress in relation to measured change. In an effort to counter this, they recommended Routine Outcome Monitoring (ROM), whereby client progress is regularly measured with standardized self-report scales throughout therapy, thus providing clinicians with this information *during* the therapy process (Lambert et al., 2018). Contextualized feedback suggests that the value of client feedback through session-by-session assessments is the way in "[...] which the information provided goes beyond what a clinician can observe and understand about client progress without such information." (Lambert et al., 2018, p. 521). Egan (2014) suggests that one way to collect information about how clients perceive therapy, is simply to ask regularly whether the help is really helping. This may also help facilitate and validate clients' awareness of their values, preferences and needs regarding their treatment plans and goals. This also fits well with individual-oriented therapy approaches which emphasize that each person should receive the best therapy related to their own goals, and which further contribute to positive changes in their daily life and communication settings (Baxter et al., 2015; McLeod, 2018). The identification and exploration of therapy elements which may be meaningful and context-sensitive for each person, is regarded as the most important focus in MIST. As McLeod (2018) suggests, the client is also active in investigating the therapy process itself, and

developing views on what has been helpful or unhelpful in therapy sessions. This suggestion is incorporated into MIST where each person has the opportunity to give both written and oral feedback throughout the therapy process. For example, the therapy preferences of a person who stutters are supposed to be identified through ongoing dialogue between them and the SLT. A *Therapy Preferences Form* (TPF) is developed to document preferred elements and the effect of the therapy elements or strategies adopted, and this form is a good tool for the SLTs for designing an individualized therapy plan. The use of the TPF can be regarded as 'routine' outcome monitoring, as described by Lambert et al. (2018). In MIST, clients are invited to rate the success of each element across two dimensions, using the Likert scale ratings 1–7: (1) How useful they find the specific element, and (2) How often they use the elements in their home-based practice/training. A range of relevant elements, strategies or tasks – which are regarded by the person as useful and relatively easy to transfer into daily life – may be recorded and summarized in the TPF. If the person finds the exercises helpful, they are then invited to practice these exercises at home, or in social, work or educational settings. Where the expected outcome is not achieved, it is expected that the SLT should modify or withdraw therapy elements, based on the person's feedback.

Overview of the key elements of MIST

MIST is a stuttering therapy approach that combines value- and awareness-based elements from *Acceptance and Commitment Therapy* (ACT), and elements from stuttering and speech modification interventions (Sønsterud et al., 2020). Between 2009 and 2012, a case study was conducted, based on explorative clinical work. It included a male aged 39 who stuttered, and who received individual, multidimensional therapy. He evaluated the following elements as being most valuable: a) 'anchoring' the breath deeper in the body to improve speech control, b) flexible speech rate (including increasing awareness of slowing body movements in general), and c) conscious exhalation ('breathing-out') (Sønsterud & Løvbakk, 2012). According to the participant, the 'breathing-out' maneuver was particularly valuable in helping him improve his ease of speaking. Thanks to external research grants from the Dam Foundation (the Norwegian Extra Foundation for Health and Rehabilitation), the single-case study was further extended, and in 2016 an A-B-A multiple case study was conducted. The therapy format in the treatment study was grounded in practice-based evidence.

Several researchers and clinicians within the field of stuttering consider non-judgemental awareness and self-acceptance as essential components of therapy for stut-

tering (Beilby et al., 2012; Boyle, 2011; Cheasman, Simpson, & Everard, 2015, Sønsterud et al. 2020). The words 'Multidimensional' and 'Individualized' within MIST emphasize the value of the interaction between personal values, awareness, and physical processes, as shown in Figure 1.

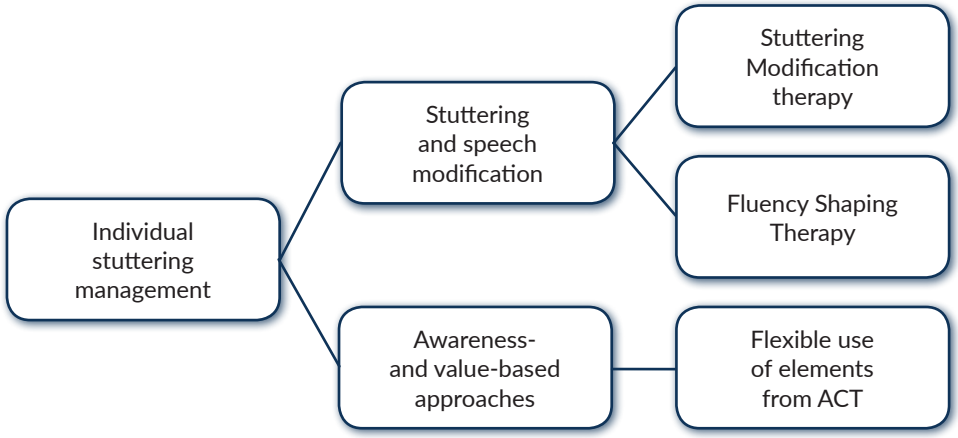

Figure 1. A simplified model of *Multidimensional Individualized Stuttering Therapy* (MIST)

One of the main reasons for incorporating awareness-based elements into MIST, was to facilitate stuttering management at both psycho-social and sensory-motor levels, in order to improve a person's ability to cope with and manage stuttering. The value-based focus in the approach is anchored within pluralistic, goal-led therapy, and within the ACT- perspective, is maintained and enhanced by participants' awareness of personal values (Harris, 2019; Hayes et al., 2012). The concept of awareness is incorporated in different ways, which will be described in more detail below. MIST works through a combination of clinician and client selection from a range of factors across five areas.

The elements in MIST are systematized partly in accordance with the three interrelated motor speech subsystems, termed respiratory, phonatory and articulatory (DeVore & Cookman, 2009), and partly from ACT and general presentation skills used in clinic (see below for more details). A pentagon is used to conceptualize the individualized nature of the approach, with the relative weighting of different sub-components varying from individual to individual. As can be seen in Figure 2, internal pentagons (in blue) can vary in shape and size.

Figure 2. A pentagon with internal, individual pentagons within.

During the therapy period, multiple therapy elements are introduced and explored in collaboration with the people who stutter, and include (although not limited to) awareness, breath support, softer phonation, block release and/or general presentation skills. This approach has five main areas of focus: 1) general breathing patterns and body tension, 2) breathing patterns during speech production, 3) vocal features in speech production, 4) value- and mindfulness-based strategies, and 5) general communication and/or presentation skills. These five areas are described in the Sønsterud et al. (2020), and further listed below.

1) General breathing patterns and body tension
For example, this might involve the introduction of slower body movements, or the practice of paying mindful attention to the breath, with the aim of improving general well-being or proprioceptive awareness, or for general stress management.

2) Breathing patterns during speech production
For example, this might involve monitoring changes in abdominal wall positioning during speech, considering breath support while speaking, or experimenting with calm, smooth breath flow (passive or active) when speaking, with the aim of attaining relatively steady exhalation and general low levels of respiratory effort and tension during speech.

3) Vocal features in speech production
Examples here include experimenting with stretched/prolonged speech, gentle onset, continuous phonation, softer articulatory contacts (including easy or soft

onset), awareness of pitch range (high or low pitch range might involve more tension in the vocal folds), changes in voice intensity (varying loudness of voice tone) (Ward, 2018), and other speech modification methods such as a pull-out from a moment of stuttering (Van Riper, 1973). To release stuttering blocks by 'pulling out of' disfluent words, either via a smooth build-up of phonation ('voicing-out') which mirrors the 'pull-out', and/or easing or smoothing out blocks by releasing the airway through consciously exhaling ('breathing-out') could, in this context, be considered as a modified version of Van Riper's pull-out. The main aim of area 3 is to make speech and communication less effortful, so as to expend less energy in speech production.

4) Value- and mindfulness-based strategies

Examples here include: observing or paying attention to inner experiences ('the observing self'); working with 'the choice point' which is a form were you are supposed to choose between values-consistent and values-inconsistent behaviors (described by Harris (2019) among others); developing in-the-moment awareness ('the being mind' as opposed to 'the doing mind'); exploring kindness, self-compassion, and value-focused perspectives; developing greater states of calmness; and accepting thoughts without judgements attached.

5) General communication and/or presentation skills

Examples include individually-tailored use of pauses; variable speech-rate, intonation or prosody; flexible use of stress within sentences to emphasize words; eye contact adapted to contexts; and body posture.

Focus areas may sometimes overlap, particularly areas 1 and 4, and depend on the person's individual response and preferred area(s) of emphasis. For example, one way to develop in-the-moment awareness is to turn one's attention to one's breathing pattern, and simply follow the breathing while exhaling and inhaling. For the specific purpose of practicing mindful attention to breath, this task would be organized within area 4, whereas when the aim is more to improve general well-being or assist general stress management, the task would be organized within area 1. However, the nature of a multi-faceted, individualized approach means that the relative weighting of different sub-components in therapy needs to vary from individual to individual. MIST is, to some extent, reflected in the work of Logan (2015) and Ward (2018), who take a synergistic view, noting that changes or adjustments in one part of the motor speech system are likely to lead to changes in other parts of the system. Furthermore, by making small changes to specific aspects of the motor speech system, people who stutter may be able to effect larger changes in their speech, experiential avoidance, and emotional regulation.

Stuttering management through awareness- and value-based work

Many stress management programs teach body awareness and deep breathing as a primary technique for stress reduction, relaxation, and general well-being. Mindfulness-based approaches have become popular interventions in the stuttering field (Boyle, 2011; Cheasman, Simpson, & Everard, 2013, Sønsterud et al., 2020). Based on Kabat-Zinn's (2003) definition of the term, mindfulness means paying attention in a particular way that is deliberate, in the present moment, and non-judgmental. According to Boyle (2011), mindfulness practice might decrease avoidance behavior and increase emotional regulation.

Mindfulness has been described and defined by many clinicians and researchers (Kabat-Zinn, 2003; Teasdale, Segal, & Williams, 2003). Aiming to further develop and improve the precision and specificity of a definition for clinical research, Bishop et al. (2004) developed an operational definition of mindfulness. Mindfulness begins by bringing awareness to current experiences, and attending and observing thoughts, feelings and bodily sensations from moment to moment by regulating the focus of attention. According to Bishop et al. (2004), the self-regulation of attention also fosters non-elaborative awareness of thoughts, feelings, and sensations as they arise. Rather than getting caught up in ruminative thoughts about one's experiences, implications and associations, mindfulness involves a direct experience of events in the mind and body. Instead of instructing the client to produce a particular state or to change what he or she is feeling, the client is instructed to "make an effort to just take notice of each thought, feeling, and sensation that arises in the stream of consciousness" (p. 231). The authors (ibid.) propose a model of mindfulness that involves adopting an orientation toward one's experiences in the present moment; an orientation that is fostered by curiosity, openness, and acceptance (Hayes et al., 2012). According to Bishop et al. (2004), mindfulness is a process of self-observation, and differs from a mindfulness-meditation technique. The authors (ibid.) further consider that mindfulness is, rather, a mode of awareness that is evoked when attention is regulated. MIST does not include any specific mindfulness-meditation techniques, but is, rather, aiming to improve awareness skills relating to different aspects of the body and/or mind, regardless of whether one intends to speak or not. Examples of awareness-based tasks in MIST may include use of the 'dropping anchor' exercises, observing or paying attention to inner experiences ('the observing self'), and/or working with 'the choice point', where people are invited to define their own '*away*' and/or '*towards'* move, where 'away' moves are 'unworkable', and 'towards' moves are 'workable' behavior, thoughts, and situations. Integrating the choice point into therapy may help clients become more aware of what matters in life, and help them in moving toward

a richer and more meaningful life. Awareness skills, both within and between persons who stutter, seem to vary greatly, yet awareness skills should be measured more systematically both in clinical and research settings in the future.

In MIST, as with other mindfulness-based approaches, there is an ongoing invitation to 'just notice', for example, breathing or body sensations. Inviting people to improve awareness skills, to 'be present', 'open up', and 'do what matters' may help them to develop *psychological flexibility*. This can be defined as the ability to 'be present' with full awareness and openness to experiences in life, and to take action guided by one's own values (Harris, 2019). Behavioral awareness in the context of MIST refers to the extent to which a person can feel, and be consciously aware of, what he or she is physically doing when speaking and/or stuttering. Awareness-based approaches may demand a level of familiarity. For example, mindfulness-based approaches focus on awareness of present moment experiences (Hayes et al., 2012), and when awareness-based approaches are used within speech therapy, it may therefore be necessary for the SLT to create an environment where the individual carries out a specific task, action or change whilst simultaneously observing their own thoughts, feelings and physiological experiences in the moment. During the therapy process, rather than providing detailed verbal instructions of changes which people could make or experiment with, the SLT should be encouraging people to observe and feel their own experience, and to continue practicing and developing awareness of self, both in and outside the clinic. However, for an individual to be consciously aware of physical sensations, while at the same time remaining present and responsive within their social environment, requires a high degree of skill.

Collaborative work in this area involves supporting a person in improving their awareness of factors such as breathing patterns, voicing, and/or physical sensations in the body. This process might involve experimenting with, and purposefully adjusting, airflow, tension, and/or voicing, while remembering at all times to acknowledge that people themselves are best placed to decide what they find optimal in their own daily life settings. Modifying particular speech or breathing patterns or consciously regulating vocal production for speech, whilst simultaneously striving to increase in-the-moment awareness may, at first glance, appear to impose an impossibly high cognitive load (Sønsterud et al., 2020). However, reminding clients that skills develop with practice over time, and anchoring the concept of 'good enough for now', may support and encourage continued mindfulness practices. Further research is needed to disentangle potential associations between awareness skills and stuttering therapy outcomes.

Conclusion

MIST is unique in that the overall goal is not to teach fluency-enhancing techniques, but rather to facilitate a greater awareness of tensions in the body, breathing and voice mechanisms, and to reduce acquired tensions by finding alternative and less effortful ways to speak and communicate. MIST is including assessment of the persons level of satisfaction, and the approach has been co-designed with persons who stutter. Tailoring therapy to the unique needs and preferences of each person has become a strategy for many interventions, and is increasingly becoming a feature of health care in general. The rationale underlying MIST is that adherence and effectiveness will be greater if the intervention accommodates personal variability. Within this perspective, SLTs need to be sensitive to clients' motivation, needs, goals, values, and responses to therapy. This in turn accentuates the need for clinicians to be able to work flexibly and to be more open towards therapy elements which seem to work.

Multiple choice questions

1. Communication is multi-faceted, and is expressed through verbal and non-verbal means. According to DeVore and Cookman (2009):
   a) About 38% of our meaning is conveyed through the words we use, tone of voice conveys 7% of meaning, and body language the remaining 55%.
   b) About 7% of our meaning is conveyed through the words we use, tone of voice conveys 38% of meaning, and body language the remaining 55%.
   c) About 55% of our meaning is conveyed through the words we use, tone of voice conveys 38% of meaning, and body language the remaining 7%.
2. Karimi and colleagues (2018) state that the following factor constitutes the primary therapy outcome, reflecting a fundamental treatment gain that overarches all stuttering treatments:
   a) Improved quality of life.
   b) Improved self-confidence.
   c) Satisfaction with communication in everyday speaking situations.
   d) Ease of participation.
3. The term 'working alliance', described as a proactive collaboration between clients and therapists across treatment sessions, was first named by:
   a) Wampold.
   b) Bordin.
   c) Flückiger and colleagues.
   d) Horvath.

4. The number of main focus areas in the *Multidimensional Individualized Stuttering Therapy* (MIST) is:
   a) 4.
   b) 6.
   c) 5.
   d) 3.

Suggested reading

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