

Chapter 8

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Integrating Clinical Practices to Address the Overall Stuttering Experience of the School Age Child. The *Lexipontix Programme* Paradigm

Introduction

It is a common experience among clinicians who work with school age Children Who Stutter (CWS) to feel devalued, frustrated or disempowered by the lack of progress as well as relapse (Hancock & Craig, 1998). In many cases, children are able to speak fluently in therapy but are unable to generalize this (Webster, 1979). They may be oversensitive to a listener's evaluation and may have unhelpful thoughts about communication despite their improvement in fluency (Plexico, Manning & DiLollo 2010; Tilling, 2011). They may lose motivation and become "bored" of therapy after some time. Often, a focus on fluency makes speech techniques part of the problem rather than part of the solution (Murphy, Yaruss & Quesal, 2007). Parents report being unable to help, and many times they are trapped in unhelpful roles such as urging the use of speech techniques, and challenging the therapy and the clinician's skills (Langevin, Packman & Onslow, 2010).

The Lexipontix Therapy Programme attempts to introduce an alternative approach to stuttering therapy by:

- eliciting clients' Best Hopes from therapy and facilitating children and their parents to move towards them (George, Iveson, & Ratner, 2013);
- exploring the overall stuttering experience of children and their parents in order to individualize therapy according to their overall needs and expectations, as well as available resources;
- merging well known and evidence-based theories and clinical practices into a coherent whole;
- introducing therapy as a role-play game based on a theme, making therapy meaningful and fun;
- using child-friendly material, enjoyable activities and card games;



- investigating the benefits of the use of different *Speech Tools* for speech management and functional communication;
- building therapeutic relationships, engaging the child, their family and significant others, and making best use of the expertise of each participant;
- focusing on solutions; on the successful part of the client's experience of life, communication and/or therapy;
- being brief and minimal, making decisions that bring about the biggest possible change in the shortest time;
- making best use of the resources of the family and the child;
- facilitating the change process by attempting optimal use of the child and family's Extra-therapeutic Factors (Imel & Wampold, 2008).

A key element of the *Lexipontix Programme* is the *Lexipontix Assessment Protocol* (LAP) (Furlas & Marousos, 2018). Every candidate for the *Lexipontix Therapy Programme* is initially assessed following the LAP. This Protocol is based on the *International Classification of Functioning Disability and Health* (ICF) (WHO, 2001). It aims to map the overall stuttering experience of a child in a way that enhances understanding of the needs and resources of the child and family. It is also used as a guide when considering available therapy options as well as selecting between available clinical modules in the application of the *Lexipontix Therapy Programme* (Furlas & Marousos, 2014; 2019). The LAP may be administered to any school-age child who stutters, irrespective of the therapy programme to be followed. It constitutes an autonomous, well-structured, comprehensive, clinically-tested, evidenced-based assessment protocol, within the ICF framework.

The present chapter provides a taste of how the *Lexipontix Programme* integrates theories, clinical practices and tools within the ICF framework, in order to activate the resources of the child and family and facilitate them in making steps towards preferred changes.

Exploring the Overall Needs of the Child and Family – The Formulation Chart

“What are your Best Hopes from therapy?”, *“What would you like to achieve by coming here, what difference would that make in your life?”*

Parents' expectations may be:

- to support their child's communication, social interaction, learning and welfare in the best possible way;
 - to feel more confident and optimistic about the future of their child, and
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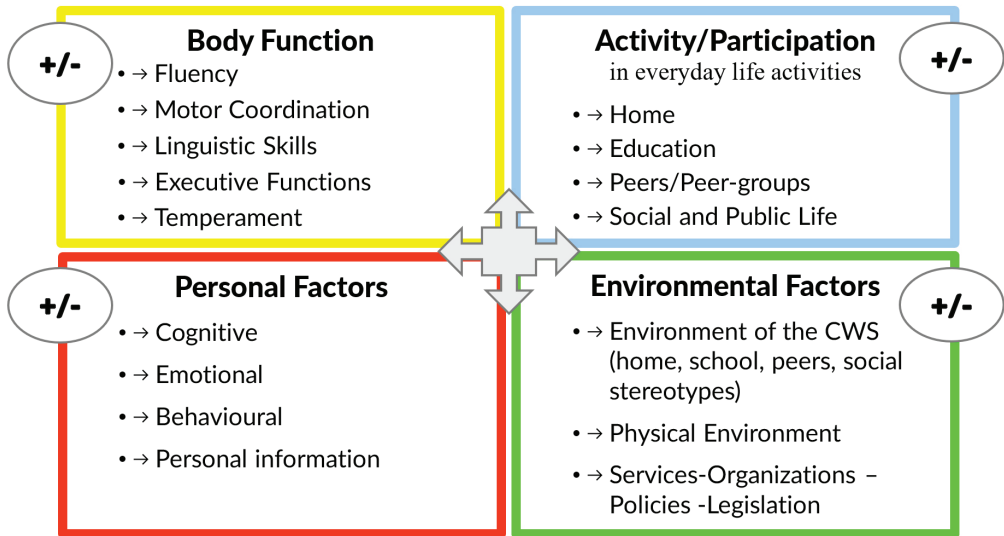


Figure 2: The Formulation Chart – Descriptive Presentation

Body Function

There is a body of research that indicates areas of interest within the Body Function Category. These areas may include:

- a) quantitative and qualitative characteristics of verbal and non-verbal stuttering behaviors conditioned to the moment of stuttering (Guitar, 2013). Measurements include non-stuttering like dysfluencies (Ambrose & Yairi, 1999; Conture, 2001; Furlas, 2011; Tumanova, Conture, Lambert, & Walden, 2014; Yairi and Ambrose, 1992) and articulatory rate (Van Zaalen-op't Hof, Wijnen, & De Jonckere, 2009a), to be used both as fluency-related data and for differential diagnosis purposes (St. Louis, Myers, Bakker & Raphael, 2007; Van Zaalen-op't Hof, Wijnen & De Jonckere, 2009a; 2009b);
- b) speech naturalness (Kelly & Conture, 1991; Yaruss & Conture, 1995);
- c) oro-motor coordination skills (Alpermann & Zückner, 2008; Cook, Rieger, Donlan & Howell, 2011; Riley & Riley, 1979; Van Lieshout, Hulstijn & Peter, 1996);
- d) language skills (Alpermann & Zückner, 2008; Anderson & Conture 2000; Arndt & Healy, 2001; Bernstein-Ratner & Silverman, 2000; Dworzynski, Howell & Natke, 2003; Blood, Ridenour, Qualls & Hammer, 2003; Ntourou, Conture & Lipsey, 2011; Yaruss, LaSalle & Conture, 1998; cf. Nippold, 2012);

- e) executive functions (Anderson, Pellowski, Conture & Kelly, 2003; Anderson & Wagovich, 2014; Anderson, Wagovich & Hall, 2006; Bakhtiar, Ali & Sadegh, 2007; Carlson, 2005; Ntourou, 2014; Eggers, De Nil & Van den Berg, 2010; 2013; Embrechts, Ebben, Franke & van de Poel, 2000; Hakim & Bernstein-Ratner, 2004; Heitmann, Asbjørnsen & Helland, 2004; Johnson, Conture & Walden, 2012; Ntourou & Anderson, 2015; Ofoe, Anderson & Ntourou, 2015; Reilly & Donaher, 2005; Sasisekaran & Byrd, 2013), and
- f) temperament dimensions (Anderson, Pellowski, Conture & Kelly, 2003; Eggers, De Nil & Van den Berg, 2009; 2010; 2013; Johnson, Walden, Conture & Karrass, 2010; Jones, Choi, Conture & Walden, 2014; Karrass et al., 2006; Lewis & Goldberg, 1997; Ntourou, 2012; Ntourou, Conture & Walden, 2013; Schwenk, Conture & Walden, 2007).

The Body Functions Assessment Protocol (Furlas & Marousos 2018) is a structured assessment tool, especially designed for the *Lexipontix Programme*, to collect data on the aforementioned subcategories. Formal and informal tests may be additionally used for the assessment of specific parameters in motor coordination, language skills, executive functions and temperament. Clinicians are advised to collect data for the areas under consideration by making use of the LAP or any other assessment instruments they are familiar with. This allows the incorporation of assessment procedures which clinicians already use and are familiar with.

Activity and Participation

The Activity/Participation category of the Formulation Chart explores the impact of stuttering on a child's everyday life. For school-age children who stutter, the impact of stuttering should be thoroughly explored during assessment, and addressed in therapy (Healey & Scott, 1995; Raming & Bennet, 1995; Yaruss, Coleman & Quesal, 2012). Subcategories in the Activity/Participation Category are specified on the basis of research focusing on communication and interaction in different environments, where the functioning of the child who stutters is not necessarily analogous to the observed fluency difficulty. These environments are home, school and peer-group environments, in social and public life communication contexts (Ahlbach & Benson, 1994; Beilby, Byrnes, & Yaruss, 2012; Blumgart, Tran, Yaruss, & Craig, 2012; Bobrick, 1995; Carlisle, 1985; Hood, 1998; Jezer, 2003; Johnson, 1930; Koedoot, Versteegh, & Yaruss, 2011; St. Louis, 2001; Yaruss & Quesal, 2006). The LAP (Furlas & Marousos 2018) proposes the use of specific assessment instruments for data collection regarding the activity and participation of the child who stutters in everyday life circumstances. Some informal instruments of the LAP such as the structured interviews for the parents and the child, and the Teacher's Questionnaire, are especially desi-



igned for data collection purposes. Others, such as the Palin Parent Rating Scales (Palin-PRS) (Millard & Davis, 2012) and the OASES-S (Yaruss, Coleman & Quesal, 2010), constitute well known and widely used instruments. Additional or alternative assessment instruments may also be used.

Personal Factors

The Personal Factors category of the Formulation Chart encompasses a child's personal information. It is more focused on the child's cognitive, emotional and behavioral responses to his/her stuttering experience. These responses may be automatically elicited as spontaneous, impulsive reactions to external events. The very same responses often reveal more personal, pervasive and permanent internal states such as core beliefs, emotional diatheses, and behavioral repertoires developed over the years of stuttering experience. There is abundant literature looking at the communication attitudes of school-age children who stutter (Blumgart, Tran, & Craig, 2010; Bricker-Katz, Lincoln & McCabe, 2009; Brutten & Vanryckeghem, 2007; Clark & Wells, 1995; Guttormsen, Kefalianos & Næss, 2015; Iverach et al., 2009; Menzies, Onslow, Packman, & O'Brian, 2009; Messenger, Onslow, Packman, & Menzies, 2004; Mulcahy, Hennessey, Beilby & Byrnes, 2008; Ntourou, Marousos, Paphiti, Fourlas, Vanryckeghem, 2016; Yaruss & Quesal, 2004). Negative communication attitudes of children who stutter are often regarded as contributing factors to stuttering chronicity (Guttormsen, Kefalianos & Næss, 2015). Affective reactions to stuttering may positively or negatively influence participation in daily activities (De Nil & Brutten, 1991a; 1991b; Guitar, 2013; Lev-Wiesel, Shabat & Tsur, 2005; Stewart & Brosh, 1997; Yaruss, 2001; Yaruss, Coleman & Quesal, 2010), and may impact overall quality of life by engendering avoidance behaviors (Plexico, Manning & Levitt, 2009; Powers, Vörding & Emmelkamp, 2009; Ryff, 1995; Ryff & Keyes, 1995; Starkweather & Givens-Ackerman, 1997). LAP instruments such as the Child Interview, the Parents' Interview and a projective assessment procedure for the elicitation of emotions related to stuttering experience are used for data collection, in addition to clinical instruments such as *Communication Attitude Test* (CAT) (Vanryckeghem & Brutten, 2020) and *Blob Tree* (Wilson & Long, 2009).

Environmental Factors

Environmental Factors may be related to a child's home or school environment, to the wider social and physical environment, as well as to social services, organizations, policies and legislation. Parents have a strong influence on their children's personalities and thought patterns (Calkins, 1994; Kagan & Snidman, 1991). They also

have an influence on the child's stuttering experience and the stuttering moments per se (Guitar, Kopf-Schaefer, Donahue-Kilburg & Bond, 1992; Guitar & Marchinkowski, 2001; Newman & Smit, 1989; Winslow & Guitar, 1994). Although parents do not cause stuttering (Nippold & Rudzinski, 1995; cf. Yairi, 1997), a child's stuttering may increase parental anxiety (Biggart, Cook & Fry, 2007; Zenner, Ritterman, Bowen & Gronhord, 1978), and this in turn often gives rise to behaviors which have a negative impact on the child's fluency (Kloth, Janssen, Kraaimaat & Brutten, 1998; Meyers & Freeman, 1985a; 1985b).

The stigma of stuttering (Blood, Blood, Tellis & Gabel, 2003; Craig, Tan & Craig, 2003; St. Louis, Reichel, Yaruss, & Lubker, 2009) often feeds on stuttering stereotypes evident in the school environment (Dorsey & Guenther, 2000; Evans, Healey, Kawai & Rowland, 2008; Frank, Jackson, Pimentel & Greenwood, 2003) and society (Craig, Tan & Craig, 2003). Children who stutter may internalize this stigma (McAdams, 1993), and may feel disempowered (Blood & Blood, 2004). They may experience bullying and teasing by some peers (Davis, Howell & Cooke, 2002; Hugh-Jones & Smith, 1999; Langevin, 2009; Langevin, Bortnick, Hammer & Wiebe, 1998), or have the acceptance and support of other peers and significant others (Hearne, Packman, Onslow & Quine, 2008; Langevin, Kully & Ross-Harold, 2007).

Data for the Environmental Factors category in the Formulation Chart is collected by making use of the LAP instruments such as the parent and child structured interviews, and the projective test for the elicitation of parental emotions related to stuttering experience. A Teacher Questionnaire, included in the *Lexipontix Assessment Manual* (Fourlas & Marousos, 2018), records information related to the school life of the child. Administration of the Palin PRS gives insight into parents' perception of the impact of stuttering on the child, the severity of stuttering and its impact on the parents, parental knowledge of stuttering, and confidence in managing it.

Using the Formulation Chart

By bringing together all significant information in a holistic perspective, the *Lexipontix* Formulation Chart guides the assessment process. The use of the *Lexipontix* Formulation Chart addresses the questions of "what" needs to be included in an assessment protocol of a school age child who stutters, and "why". In contrast, the LAP deals with the "how" questions of the assessment process.

Data collected during the assessment process are transferred into the Formulation Chart. Color coding is used in all assessment instruments provided by the LAP, to help with mapping data onto the four categories of the Formulation Chart, i.e., Body Function, Personal Factors, Environmental Factors, and Activity and Partici-



pation. The goal is to end up with a chart that organizes data in a brief yet functional way, that makes sense and illustrates potential therapy routes to meet clients' Best Hopes from therapy.

Mapping data into the Formulation Chart is a collaborative process that involves the child, parents and the therapist. It is based on the acknowledgement, evaluation, interpretation, clarification, classification, correlation, understanding, and validation of all the information revealed in the assessment process. This process enhances understanding of, and consensus upon, the child's stuttering experience, that enables the formulation of valid clinical hypotheses and guides to taking management decisions.

Making use of the Formulation Chart assessment, findings are discussed with the child and parents, and therapy goals are set, in collaboration with all participants. The Formulation Chart is the "dynamic compass" which navigates the therapist while planning, selecting, activating and delivering the relevant "Modules" of the *Lexipontix Programme*. Modules are distinct entities containing interrelated clinical tools and practices. Different Modules are implemented according to each child's individual needs, as mapped on the Formulation Chart. For example, a high CAT score or comments and narrations indicative of negative attitudes, which are recorded in the assessment interviews, highlight the need for CBT Modules. High counts in stuttering behaviors – that is involvement of Body Functions – point towards the utilization of more speech techniques Modules. The heightened involvement of Environmental Factors related to parental behaviors points to an increased need for implementation of Alliance Modules. In a following section (Case Studies), case studies of selecting Modules to cover individual needs are presented.

Change is expected as a result of therapy, for it to be considered effective. Assessment is an ongoing process in therapy, and the Formulation Chart is used as a change monitoring tool. Formulation Chart updates are encouraged and anticipated, and are indicative of a child's current needs and resources. Information mapped in the Formulation Chart during initial assessment forms the baseline for pre- and post- treatment comparisons, for monitoring treatment results and for planning additional therapy.

Therapy in a Meaningful Context – *The Factory of Mind*

The *Lexipontix Programme* helps a child to initiate positive changes in activity and participation in everyday life circumstances, and to improve quality of life. Therapy is built on a theme, it is fun and it makes sense; it is about exploring and un-

derstanding the stuttering experience, finding alternative ways of management, and producing meaningful changes (Botterill, 2011; Fry & Cook, 2004; Fry & Farants, 2003). The Programme aims at Communication Restructuring, i.e., a person is enabled to:

- reconstrue their communicative role;
- alter the definition of communicative success and failure;
- respond in a functional and meaningful way to the demands of a communicative event.

As a result of Communication Restructuring, the child experiences a rationalized and harmonious relationship with their stuttering, and stuttering no longer poses a worrying threat.

The *Lexipontix Programme* combines well-known theories and clinical practices that are commonly used and have been proven as effective in Stuttering Therapy: *Parent-Child Interaction (PCI) Therapy* (Eyberg et al., 1999; Kelman & Nicholas, 2008; 2020), *Cognitive Behavioral Therapy (CBT)* (Beck, 1967a; 1967b; Beck, 1995), and speech management techniques – both Stuttering Modification (Van Riper, 1971; 1973) and Fluency Shaping (Ingham & Andrews, 1973). These provide the theoretical scaffolding which supports most clinical practices and tools of the Programme.

School-age children are familiar with fictional characters, and often empathize with them. The protagonists in the *Lexipontix Programme* are the child, in the role of a *Superhero* who tries to defend his *Factory of Mind* (figure 3), and a naughty mouse called *Lexipontix*, which tries to *Intrude into* or *Invade* the *Factory of Mind* and *Sabotage* the *Factory Machines*. The child is empowered by *Allies* and *Tools*, and is involved in *Missions* and *Experiments* in order to deal with the activity of *Lexipontix*. There are four interrelated *Factory Components* that work synergistically in communication, before, during and after a communicative event: The *Machine of Thoughts*, the *Lab of Emotions*, the *Body Sensors* and the *Machine of Actions and Words*. These *Components* correspond to the key elements of the CBT cycle: Thoughts, Emotions, Somatic Reactions, and Behaviors (Beck, 1967a; 1967b;). The *Factory* is regulated by the *Control Centre* which is the central control panel of the *Factory of Mind*. It continuously receives and sends information, keeping all *Factory Components* in equilibrium.



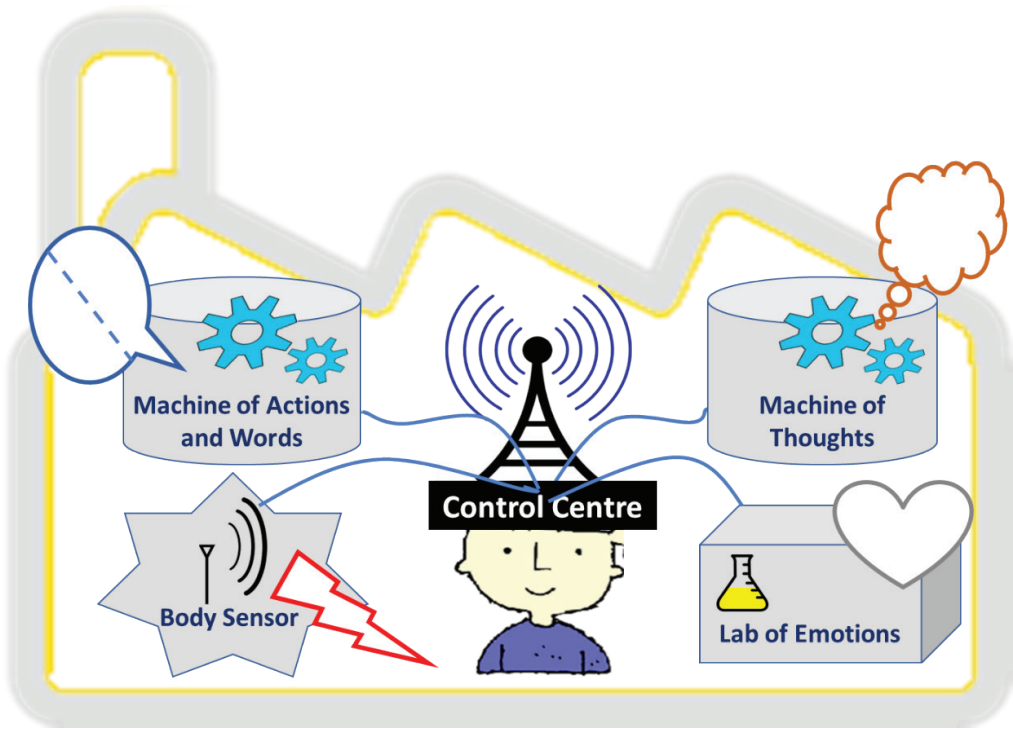


Figure 3: The Factory of Mind

Lexipontix is a well-known visitor who represents both internal as well as external threats. The former corresponds to the organic and personal (affective, cognitive and behavioral) factors of stuttering; the latter to environmental and communicative variables. Against *Lexipontix* is a *Superhero*, the child who stutters. Stuttering occurs when *Lexipontix* attempts to *intrude* into the *Factory of Mind* (anticipation of a stuttering event), *Sabotages* any of the *Factory Machines* (the experience of a stuttering event), or *Invades* the *Control Centre* of the *Factory*. For example, the Negative Automatic Thought “*I will stutter and all my classmates will laugh at me*” produced at the very moment the child is asked to read aloud in the class, is an example of an attempt of *Lexipontix* to *intrude* into the *Factory of Mind*. In case the child perceives this thought as a fact or as the only possible scenario, a *Sabotage* takes place in the *Machine of Thoughts*. An *Invasion* may happen if the child asks to go to the toilet in order to avoid his turn to read aloud. *Invasion*, as a result of a successful *Sabotage*, triggers a vicious cycle leading to avoidance, or to a moment of stuttering. As therapy progresses the child is empowered to self-discover his own super-role in therapy, his *Super-Powers*, potentials and skills, which he uses to dominate *Lexipontix*.

Like most superheroes, the child has a supporting network of friends or co-workers. This is the therapeutic *Alliance* which the child gradually builds and broadens. Parents enter the *Alliance* from day one, together with the therapist, and they are amongst the founding members of the *Alliance*. Parents and child are engaged in therapy as equal partners (Anderson & Gehart, 2007; Biggart, Cook & Fry, 2007). Parents are allocated their own cognitive, emotional and behavioral therapy aims. They are empowered to develop a shared understanding of their child's difficulty (cognitive level), to empathize with the child by recognizing their thoughts and emotions (emotional level), and to act as fluency and communication facilitators (behavioral level). The child gradually *Recruits* into the *Alliance* teachers, classmates, relatives and friends. Recruitment of new Allies involves the child (a) talking openly about stuttering and the therapy experience, and (b) asking potential allies to make specific adaptations when interacting with them, such as doing *Experiments* together, giving time, stuttering openly, or practicing with *Speech Tools*. The expansion of the *Alliance* brings about positive attitudinal changes to both the child, and to people in their environment. Assertiveness skills are enhanced, desensitization grows, and social stereotypes are deconstructed. Research on resilience and stuttering indicates that social support is one of the 'protective factors' against the adversity of chronic stuttering (Craig, Blumgart & Tran, 2011).

In *Lexipontix* terminology, therapy aims to empower the child to gain, maintain or regain control over the *Control Center* of the *Factory*. In this way *Lexipontix* is kept under control, and his *Invasions* are prevented from having a significant impact on the functioning of the *Factory of Mind* (Fourlas & Marousos, 2014). The child gradually experiences a rationalized and harmonious relationship with his stuttering, and stuttering becomes not a worrying threat anymore. This aim is compatible with the chronic nature of stuttering, and the ultimate goal of Communication Restructuring.

Selecting Clinical Tools

The Programme develops in two phases. Phase A (figure 4) lasts for 13 sessions. Progress is then assessed, and additional therapy may be recommended in Phase B according to individual needs. For children in no further need of therapy, follow-up sessions are scheduled in 1-, 3-, 6- and 12-months' time. Most children and parents experience significant change by the end of Phase A, and follow the path of the follow-up review sessions. Phase A consists of a Core Structure and a Modular Structure, which consists of several optional Modules. Modules are interrelated clinical tools and practices adjacent to the Core Structure. There are three types



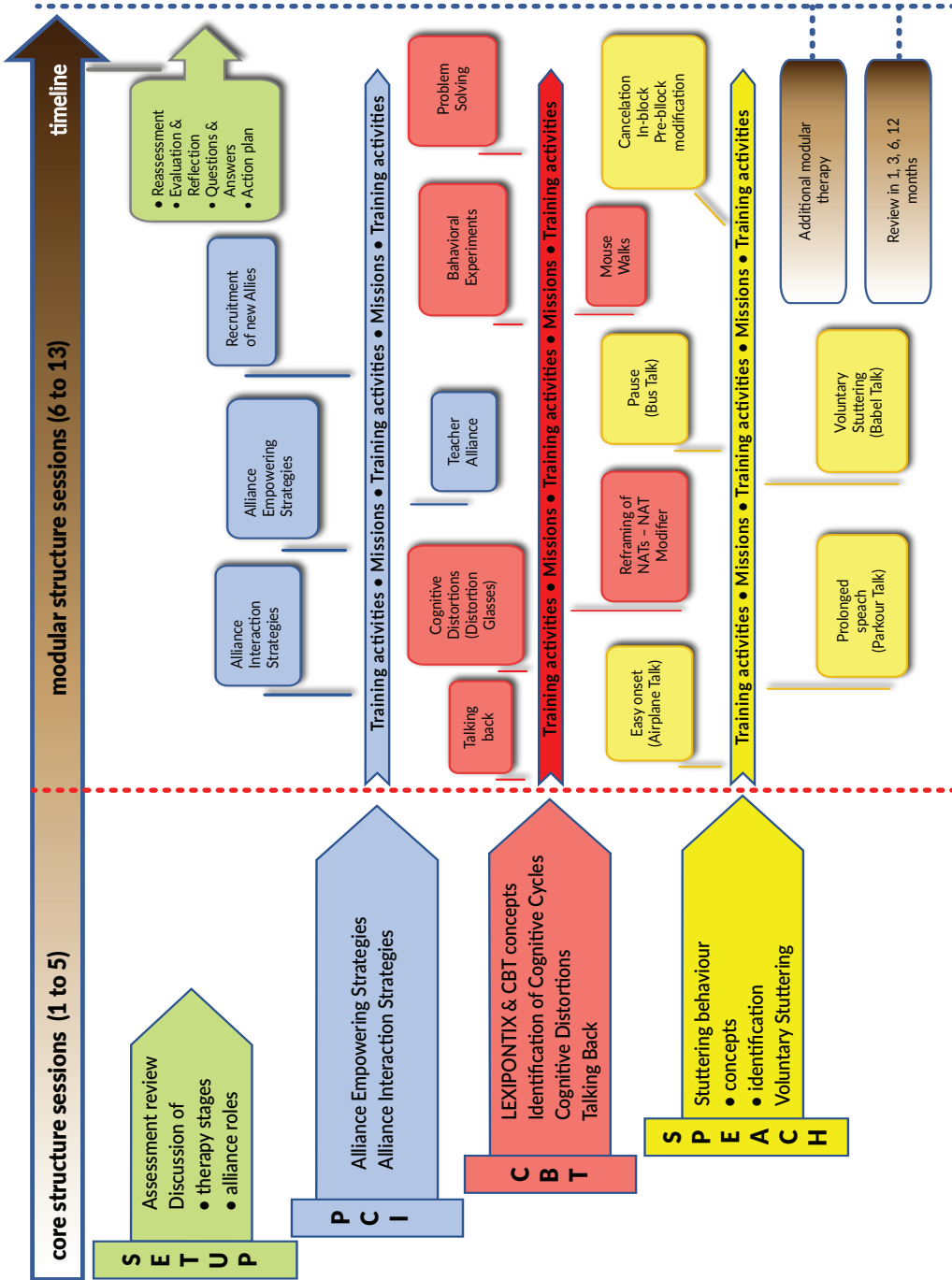


Figure 4: Lexipontix Programme Core & Modular Structures: Modules & Treatment Plan (Fourlas & Marousos 2015)

of *Tools* that are incorporated in the Core and Modular Structures: *Blue*, *Red* and *Yellow Tools*, which correspond to the *Parent-Child Interaction Therapy*, the CBT and the speech management components of the Programme, respectively. In Phase B, additional Modules are implemented sharing therapy principles and clinical practices in common with Phase A.

All participants in the *Lexipontix Programme* follow the same Modules in the Core Structure, but in the Modular Structure, the Programme is highly adjustable to the needs of each child/family. This adaptable 'Modular Structure' provides the Programme with the necessary flexibility to meet individual needs. The selection of Modules follows certain principles:

- Modules are selected using data recorded in the Formulation Chart during initial assessment or the course of therapy.
- Modules are selected on the principle of "minimal-sufficient-effective". The Modules that are expected to make the biggest change in the shortest time, making optimum use of the resources of the Alliance, will be selected.
- Selection of Modules is a collaborative process that involves all the Alliance, with the child having the final call.

Blue Tools

The *Parent-Child Interaction Therapy* component (Eyberg, 2005; Eyberg et al., 1999; Kelman & Nicholas, 2008 & 2020; Querido, Bearss, & Eyberg, 2002; Zisser & Eyberg, 2010) is introduced in the form of Alliance Interaction Strategies and Alliance Empowering Strategies. A highly significant Alliance Empowering Strategy is Special Time. Special Time is introduced from session one to:

- help the child and the family to make best use of their potential by practicing Alliance Interaction Strategies that enhance fluency (Millard, Nicholas & Cook, 2008);
- help the therapist get additional information at an early stage in the Programme on individual strengths, and on family dynamics and communication;
- prepare the ground for family Board Games;
- strengthen the *Alliance* relationships;
- build a safe and desensitized environment for practicing *Yellow Tools* and *Red Tools* (i.e., *Tools* for speech and *Tools* for thoughts and emotions, respectively).

Two additional Alliance Strategy Modules which are activated in the Modular Structure are the Recruitment of new Allies Module, and the Teacher Alliance Module. The former empowers the child to *Recruit* more members in the *Alliance*, and the latter empowers the child to educate their schoolmates and the staff of the school, so as to create a positive communicative environment at school.



The Core and Modular Alliance Strategies of the Programme are presented in Table 1.

Table 1: Alliance Strategies in the Core and Modular Structures

	Alliance Interaction Strategies (list not exhaustive)	Alliance Empowering Strategies (list not exhaustive)	Recruitment of new Allies	Teacher Alliance
Core Structure	<ul style="list-style-type: none"> • <i>child takes the lead in play</i> • <i>child regulates/leads the Alliance</i> 	<ul style="list-style-type: none"> • <i>special time</i> • <i>praise</i> • <i>desensitization/openness about stuttering</i> 		
Modular Structure	<ul style="list-style-type: none"> • <i>communication rate modification</i> • <i>linguistic modifications</i> 	<ul style="list-style-type: none"> • <i>desensitization/openness about stuttering</i> • <i>turn taking</i> 	<ul style="list-style-type: none"> • <i>advertising</i> • <i>recruiting Allies</i> • <i>assertiveness</i> 	<ul style="list-style-type: none"> • <i>educating school mates and staff</i> • <i>recruiting allies at school</i>

Red Tools

By applying the CBT model in stuttering therapy, children who stutter are helped to gain insight into automatically elicited responses associated with the moment of stuttering and derived from their stuttering experience. These responses can be cognitive (“*they will think I am stupid if I stutter*”), emotional (anxiety, fear), physical (sweaty palms, raised heart rate) or behavioral (increased stuttering or avoidance behaviors).

In the Core Structure of the *Lexipontix Programme*, the CBT component involves:

- identification of feelings and attitudes;
- identification of Negative Automatic Thoughts (NATs) (Beck, 1967a; 1967b);
- initial processing of NATs by means of Talking Back (Cook & Botterill, 2009);
- identification and challenging of Cognitive Distortions (Beck, 1995).

Games and therapy activities have been developed to serve the above aims. Certain clinical tools and practices have been incorporated, including Socratic Questions (Padesky, 1993), Anxiety Meter (similar to Worry Dial; Scott, 2010), Rating Scales, Identification and Challenging of NATs, and Progressive Exposure (Beck, 1995).

There is also a choice of *Red Tools* – Modules to be activated in the Modular Structure. These Modules are:

- Cognitive Distortions (*Distortion Glasses*), i.e., the identification of exaggerating or irrational thought patterns, which impose a negative bias in thinking (Beck, 1995);
- Problem Solving (Stallard, 2005; 2019);
- Behavioral Experiments (Menzies et al., 2008; Menzies, Onslow, Packman & O’Brian, 2009; Stallard, 2005; 2019);
- Talking Back (Cook & Botterill, 2009; Stallard, 2005; 2019);
- Reframing of NATs by means of Modification (*The NAT Modifier Tool*) (Cook & Botterill, 2009; Scott, 2010, Stallard, 2005; 2019);

- Voluntary Stuttering (*Mouse-Walks*) i.e., dealing with Cognitive Cycles triggered by practicing Voluntary Stuttering in real communicative situations.

Yellow Tools

Yellow tools are related to Speech Techniques. In *Lexipontix*, Speech Techniques are used on purpose and to produce meaningful results. They are used to serve certain communicative demands and to enhance functional communication (Fourlas, 2011). Contrastive Production, that is talking using the Technique and the Anti-Technique, is practiced to increase proprioceptive feedback and control over the articulatory movements. Children are guided to self-discover which Technique best serves the communicative demands of a specific communicative event. In addition, they learn how to make use of the Techniques in Missions and Behavioral Experiments in order to challenge cognitions and control emotional reactions. Missions are collaboratively designed actions for practicing *Red* and *Yellow Tools* in real-life communicative events. Both Fluency Shaping (Ingham & Andrews, 1973) and Stuttering Modification Techniques (Van Riper, 1971; 1973) are included in the Programme. Different Speech Techniques constitute separate Modules. The following Modules have been incorporated:

- Parkour Talk – Prolonged Speech;
- Airplane Talk – Easy Onset;
- Bus Talk – Pause;
- Rebound Talk – Cancellation;
- Instant Parkour Talk – In-block Modification, and
- Cassandra Talk – Pre-block modification.

To encourage familiarity, reflection and insight, children are encouraged to negotiate and set up their own jargon related to Speech Techniques and not necessarily use the proposed terms.

Case Studies

Three clinical cases of school-age children who stutter will be discussed, as examples of integrating clinical practices in order to address the unique overall stuttering experience of each individual child, in the context of the *Lexipontix Programme*. A close look at the Formulation Charts of Mary, 8 yrs. (table 2), Peter, 9 yrs. (table 3), and Giannis, 11 yrs. (table 4) reveals that each child experiences a different and unique stuttering experience. All three children demonstrate speech dysfluencies, but they are different in all other parameters related to their stuttering as well as their abilities and skills. They also differ in terms of their overall needs.



Table 2: Mary's Formulation Chart

Formulation Chart: Mary, 8 years	
Body Function	Activity / Participation in everyday life activities
<p>Family history of anxiety disorders (mother, grandmother).</p> <p>Fluency: %SS=3 and SR=7/10. Mostly blocks. Physical concomitants evident at stuttering moments: tension at forehead, eyelid twitches, slapping face.</p> <p>Language: word finding difficulties, phonological difficulties (palatalization: palatal realization of alveolar fricatives).</p> <p>Typical articulatory rate and naturalness of speech, Oro-motor coordination difficulties attributed to premature birth.</p> <p>Temperament: Negative reactivity, oversensitivity to social evaluation, low flexibility ("she wants things her way"), impulsivity, impatience.</p> <p>Good executive functions – no difficulties identified.</p>	<p>At home: active participation in family conversations, lies occasionally and gets easily irritated in arguments.</p> <p>Parents express worries, fear, insecurity, and concern about stuttering.</p> <p>At school: high achievement in written tasks, low participation in oral tasks – more active occasionally.</p> <p>In peer-groups: Hesitation or reluctance to interact/communicate. Avoidance of stuttering: change of sounds, words and avoidance of speaking situations.</p> <p>Social & Public life: Experience of unpleasant feelings: fear, embarrassment, anger, anxiety. Stuttering restricts participation in social occasions (parties, outings, extracurricular activities). Life satisfaction is negatively affected (OASES-S score=3.55).</p>
Personal Factors	Environmental Factors
<p>Mary's Best Hopes from therapy: Words to come out easier, not to feel embarrassed, to have more courage talking to others. Attends 3rd grade in primary school – high grades.</p> <p>Followed speech therapy which targeted phonology of speech for 1 year.</p> <p>Perfectionist. Low self-confidence. Familiar cognitive reactions: "I will fail. I will get teased". Emotional reactions: Anxiety, fear, embarrassment. Behavioral reactions: Avoidance, stuttering is not openly discussed. Headaches are reported when reading aloud in class.</p> <p>Self-invented speech strategies: pause for breathing, word repetition. Cognitive strategies: imaginary image of the family.</p> <p>Personal attributes: inventive, courageous, resilient, persistent.</p> <p>Negative attitudes to communication: CAT score: 22/33.</p>	<p>Parents' Best Hopes: Words to come out easier, Mary to gain confidence and calmness.</p> <p>Father works long hours. Mother unemployed, mainly at home. Oldest brother, aged 11. Mother reports being a perfectionist herself.</p> <p>Stuttering is discussed openly at home.</p> <p>Palin PRS: Low parental knowledge and confidence in managing stuttering, severe impact of stuttering on parents.</p> <p>Anxiety gives rise to frequent parental prompts: eg 'speak slower/clearer'.</p> <p>No SLT at school. Supportive teacher, open to learn and collaborate.</p> <p>Social stereotype: Stuttering is a serious psychological disorder.</p> <p>Teasing for stuttering and weight-related teasing, at school.</p> <p>Insurance company covers speech therapy expenses. Specialized fluency therapy provision available in the area of habitation.</p>

Table 3: Peter's Formulation Chart

Formulation Chart: Peter, 9 years	
Body Function	Activity / Participation in everyday life activities
<p>Familial history of cluttering – father is a person who clutters.</p> <p>Fluency: spontaneous speech %SS=7, reading %SS=4 and SR=4/10. Mostly sound and syllable repetitions and mild prolongations. No physical concomitants. High frequency of NSLD (mostly part phrase repetitions). Long hours of sleeping associated with better fluency. Typical to fast rate of speech. Good naturalness.</p> <p>Good oro-motor coordination skills.</p> <p>Language skills: low narrative skills, lack of organization in long utterances, for argumentation, and giving explanations.</p> <p>Temperament: Sensitivity, low self-regulation, good adaptability to novelty.</p> <p>Executive Functions: difficulties in sustaining attention, inhibitory control, working memory, organization and goal-directed work.</p>	<p>At home: Stuttering has an adverse impact on parents: nervousness, sadness, couple conflicts, guilt. Peter is less affected by his stutter: “<i>Stuttering is not a big deal</i>” for him.</p> <p>Motivated to participate in family daily works (e.g., shopping, cleaning). Few opportunities offered.</p> <p>At school: Exclusion from oral participation has been agreed between parents and teacher.</p> <p>In peer-groups (classmates/friends/social interactions): Popular child: has many friends, highly involved in social interactions, never stays alone. Peter enjoys the company of others and has a good time with them (well-being and satisfaction with life).</p> <p>‘Mild’ Stuttering impact according to OASES-S (score=1.32).</p>
Personal Factors	Environmental Factors
<p>Peter's Best Hopes from therapy: “<i>To learn how to help my talking by speaking slowly. This will make my parents and me happier</i>”.</p> <p>Cognitive reactions: “<i>Speech is not always easy. Others wouldn't like speaking like me, I delay people talking to me. My parents help me talking. I will learn slow talking and therefore not stutter</i>”.</p> <p>Emotional reactions: Optimism. “<i>Stuttering will go with time</i>”.</p> <p>Behavioral reactions: Avoidance of oral participation at school. Long discussions with friends despite stuttering. Talking slowly helps – although rarely used.</p> <p>Extra-curricular activities: Sailing, Foreign language lessons.</p> <p>Personal attributes: sociable, happy, diplomatic, persistent, athletic.</p> <p>Attends 4th grade in primary school – medium grades.</p> <p>Low score in <i>Communication Attitude Test</i>: CAT score = 6/33.</p>	<p>Parents' Best Hopes: Peter to manage his fluency better and we, as parents, to feel less anxious & more confident regarding Peter's future.</p> <p>Peter is the only child. Both parents work in the mornings.</p> <p>Both parents present with fast articulatory rate on their own speech.</p> <p>Palin PRS: High parental anxiety. Low parental knowledge and confidence in managing stuttering.</p> <p>Parents try to support Peter by (a) saying the word for him when he finds it difficult (b) answering themselves to other's questions. Parents' main concern for Peter is not to be stressed. Daily conflicts regarding school study and homework assignments.</p> <p>School: Supportive Teacher. Seeks ways to help. Peter's exclusion from oral participation was decided to protect Peter from exposure.</p> <p>Social Stereotype: Stuttering is a stigmatizing weakness.</p> <p>Public insurance covers therapy expenses.</p>



Table 4: Giannis's Formulation Chart

Formulation Chart: Giannis, 11 years	
Body Function	Activity / Participation in everyday life activities
<p>Familial history of stuttering – grandfather stutters.</p> <p>Fluency: spontaneous speech %SS=18, reading %SS=12.3 and SR=7/10. Syllable and sound repetitions, blocks and prolongations mostly initiating phrases. Physical concomitants: Sudden hand movements at blocks.</p> <p>Articulatory rate: Typical rate of speech with sudden spurts which negatively affect speech naturalness.</p> <p>Language skills: Average scores in formal tests.</p> <p>Executive functions: Difficulties in projects requiring sustained attention, organizational skills, and goal-directed actions.</p> <p>Good oro-motor coordination and diadochokinesis.</p> <p>Temperament: Good self-regulation. High negative reactivity.</p> <p>Premature birth. No milestones delay.</p>	<p>At home: All family members (including Giannis) interrupt each other – difficulties in taking turns are reported. Giannis fully participates in family conversations and answers all incoming phone calls at home. Sometimes, Giannis' speech becomes unintelligible due to high frequency of stuttering events.</p> <p>At school: High participation in school lessons and events. He raises hand eagerly. He does not give up, even on days with severe stuttering.</p> <p>In peer-groups: Few bound friends – classmates from kindergarten. Easy, effortless communication with peers. Feels uncomfortable to answer questions about his stuttering – does not know much.</p> <p>Social & Public life: Often invited by classmates to parties – always responds. Less eager to communicate with friends at the village. He avoids going to his mother's village at the weekend.</p> <p>Mild to medium stuttering severity in OASES-S (score=2.14)</p>
Personal Factors	Environmental Factors
<p>Giannis's Best Hopes from therapy: <i>"Speech to come out easier so that teasing to be eliminated"</i>.</p> <p>Attends 6th grade at school – average school achievement.</p> <p>Negative attitude towards speech & language therapy: <i>'boring'</i>. Four years in speech therapy with phonology and fluency goals.</p> <p>Cognitions: <i>"I do not speak well, like other children. Speech is hard. My parents worry for my speech. Stuttering is my fault"</i>.</p> <p>Emotions: Disappointment and fatigue.</p> <p>Behaviors: Stuttering is openly discussed. Practices with speech techniques (reading aloud in slow rate) frequently but techniques are not used functionally in daily communication or in reading aloud in class.</p> <p>Personal attributes: sincere, sensitive, conscientious, supportive.</p> <p>Communication attitudes – CAT: Score 9/33.</p>	<p>Parents' Best Hopes: Speech to improve so that Giannis feels emotionally strong.</p> <p>Family of four – younger sister 6 yrs old. Parents work long hours – at home in the evenings. Grandmother is involved in childcare.</p> <p>Palin PRS: Parent's knowledge and confidence in managing the stammer – Moderate. Parents feel moderately anxious.</p> <p>Parental prompts: <i>"You must try, using the speech techniques you learned in speech therapy"</i>.</p> <p>School teacher not available for consultation.</p> <p>Classmates are supportive. Giannis experiences teasing by children in the village every summer.</p> <p>No social stereotypes identified: <i>"Stuttering is just a hinderance to communication"</i></p>

Data presented in the Formulation Charts of the three clinical examples above indicates differential activation of Modules. The *Lexipontix Programme* allows for adaptations to the implementation of the Programme according to the individual needs of each child. Specific Modules are activated to address the most significant parameters of the stuttering experience that is evident for Mary, Peter and Giannis, as shown in table 5, below. In the columns on the right of the table, ticks indicate the proposed *Lexipontix* Modules for each child.

Table 5: Selected Modules for the Modular Structure (sessions 6–13). for Mary, Peter and Giannis

	Mary	Peter	Giannis
Alliance Strategies – Blue Tools			
1. Alliance Interaction Strategies		X	X
2. Alliance Empowering Strategies		X	X
3. Recruitment of new Allies	X	X	X
4. Teacher Alliance	X	X	
CBT Modules – Red Tools			
1. Talking back	X		
2. Cognitive Distortions (Distortion Glasses)	X		
3. Reframing of NATs (NAT Modifier)	X		X
4. Behavioral Experiments	X		
5. Voluntary Stuttering (Mouse Walks)	X	X	
6. Problem Solving	X		X
Speech Modules – Yellow Tools			
1. Voluntary Stuttering (Babel Talk)			X
2. Prolonged Speech (Parkour Talk)		X	
3. Easy Onset (Airplane Talk)	X		X
4. Pause (Bus Talk)			X
5. Post-block modification / Cancellation (Rebound Talk)	X		X
6. In-block modification / Pull out (Instant Parkour Talk)			
7. Pre-block modification / Preparatory sets (Kassandra Talk)			
8. Other			



In the Modular Structure of the *Lexipontix Programme*, the selection of Modules is driven by the child's Formulation Chart. The clinical rationale behind selection is based on the initial assessment data given above. In this perspective, the Modules selected for Mary, Peter and Giannis are provisional. The Formulation Chart is updated session by session, and the initial selection of Modules is reconsidered based on ongoing data.

In Mary's Programme, there will be an emphasis on CBT Modules (*Red Tools*) due to her strong cognitive and emotional reactions, and her pervasive use of stuttering avoidance behaviors which restrict her academic achievement, communication and quality of life. The decision to focus on CBT Modules is supported by her perfectionistic profile, temperament characteristics, and her family history of anxiety disorders. Furthermore, Mary's Best Hopes from therapy are pointing towards increased emotional resilience, which also points to CBT Modules.

In addition to CBT Modules, Mary's therapy Programme will incorporate Alliance Strategies (*Blue Tools*) and Speech Modules (*Yellow Tools*). Recruitment of new Allies will help Mary to keep an open attitude about stuttering with friends. The Teacher Alliance Module will help her benefit from the support of her caring teacher. These Alliance Strategies are selected to create a supportive network at school, which is expected to enhance Mary's oral participation, and improve her quality of life. In addition, activation of a speech Module is required to facilitate speech control and management of the stuttering moments. Post-block Modification (*Kassandra Talk*) is one of the available options to be introduced. This Module can build upon the word repetition strategy already invented and used as a coping mechanism by Mary. Practicing Post-block Modification (*Kassandra Talk*) requires acknowledgement of the moment of stuttering, and this may also facilitate the desensitization process. The Easy Onset (*Airplane Talk*) Module is another option which, if selected, may facilitate an easy, relaxed approach to the initial sound of the word in order to enhance speech management and to reduce tension in Mary's physical concomitant behaviors.

Considering the selection of Modules for Peter's Modular Structure, it becomes evident that emphasis is laid on Alliance Strategies (*Blue tools*). All four Alliance Strategies Modules are introduced. Alliance Interaction Strategies (such as Slow Parental Speech Rate, Letting the Child Direct the Play) as well as Alliance Empowering Strategies (such as building Confidence, enhancing Autonomy / Internal Locus of Control) are expected to bring positive changes. These strategies are also expected to facilitate optimum parental support, to minimize daily conflicts at home, and support all family members to achieve their Best Hopes from therapy. The practice of Alliance Interaction Strategies in Special Times is expected to have positive impact on articulatory rate, self-regulation, executive functions and language skill-

ls. Such changes are expected to reduce pressures on fluency imposed by factors cited in the Body Functions category of Peter's formulation chart.

The Recruitment of new Allies Module, takes advantage of Peter's popularity and wide social network. This Module will help Peter to create a supportive network for himself, which is expected to increase his resilience even further. Peter's teacher has already tried to play a supportive role in class by excluding Peter from oral tasks. The activation of the Teacher Alliance Module may induce joint decisions for alternative means of support. A possible CBT Module (*Red Tool*) to be activated in Peter's case is the Voluntary Stuttering (*Mouse Walks*) Module. This is expected to help all family members to deal with their unhelpful cognitions and unpleasant feelings related to stuttering. The Prolonged Speech (*Parkour Talk*) Module is also suggested for activation. This *Speech Tool* seems to be in accordance with Peter's cognition that "*talking slowly helps*" and it is expected to contribute to a better handling of his speech disfluencies.

In the case of Giannis, more emphasis is given to the Speech Modules (*Yellow Tools*). Giannis presents with a high percentage of stuttered syllables, frequent physical concomitants and high severity ratings for his stutter. His speech naturalness is affected by sudden speech spurts. Giannis reports that he feels tired by his severe stutter and that his speech becomes occasionally unintelligible. Speech Modules will pursue increased speech management in everyday communicative situations, making talking easier for Giannis. His good oro-motor coordination as well as his advanced self-regulation skills are considered facilitatory parameters in mastering speech management techniques. The selection of a speech management Module such as Prolonged Speech (*Parkour Talk*) may build on Giannis' slow rate reading practice experience. Prolonged Speech may help him to better manage his sudden speech spurts. The fact that most of Giannis' stuttering moments occur at the beginning of a phrase is an indicator for the activation of the Easy Onset (*Airplane Talk*) Module. The Voluntary Stuttering (*Babel Talk*) Module could also be an alternative or additional Module. This Module may help Giannis to gain proprioceptive awareness of articulatory movements and increased control over the motoric aspects of speech. This knowledge may gradually help voluntary blocks, and sound or syllable repetitions to turn into a mechanism for speech-control over involuntary stuttering behaviors. Giannis, having a long history of practicing Speech Techniques and of having therapy, reports fatigue and low motivation for additional therapy. His motivation to participate in a new course of therapy probably depends on the therapy making sense, and being fun, motivating and different. Giannis will use Speech Techniques intentionally, to produce meaningful results, to serve certain communicative demands, and to enhance functional communication. He will be able to experiment with different *Speech Tools* in order to explore ways that they can serve his



communicative or speech management aims. Together with his *Allies* (parents, siblings, other relatives, and friends), Giannis will participate in *Yellow Tools* Missions. Reflecting on the use of *Speech Tools* in real-life circumstances at the end of Missions, Giannis and his *Allies* may discover for themselves the difference that *Speech Tools* make in communication and communication-related parameters.

Despite emphasis being given to speech management Modules, Giannis's Formulation Chart indicates additional therapy needs. The ability to deal with teasing was stated as one of his Best Hopes from therapy. The introduction of the Alliance Strategies (*Blue Tools*) will help Giannis to deal with teasing and move towards this expectation. Activation of Modules, such as Alliance Interaction and Alliance Empowering Strategies as well as Recruitment of new Allies, are expected to facilitate turn-taking in communication at home and enhance knowledge on stuttering, as well as increasing the parents' confidence in their supporting role. *Blue Tools* will also help the parents to experience and explore more helpful roles in supporting Giannis than just prompting him to use Speech Techniques.

The Lexipontix Programme – Efficacy research

Based on clinical trials, the *Lexipontix Programme* was developed following a multi-dimensional validation process described in an early report (Furlas & Marousos, 2015). The current version represents the 3rd revision of the Programme. It is supported by an Assessment (Furlas & Marousos, 2018) and a Treatment Manual (Furlas & Marousos, 2019) as well as clinical material, forms and games in electronic form. Manuals, official training and supervision are means of maintaining consistency in the implementation of the Programme.

Published case studies of two of the children who participated in the initial clinical trial period are paradigms of the validation process. They are also indicative of the expected outcomes of the *Lexipontix Programme*. In both case studies, parents report positive changes, and comparisons of pre- and post-therapy assessment results revealed important changes (Furlas & Marousos, 2015).

Two further studies provide evidence of the efficacy of the *Lexipontix Programme*. In the first study, pre- and post-therapy measurements (%SS and Severity Rating for spontaneous speech and reading, OASES-S, CAT, Palin PRS) were compared for a sample of 26 children and their parents who participated in the *Lexipontix Programme*. A statistically significant difference was found in all measurements (Furlas & Ntourou, 2020; 2021). The results demonstrate that children who completed the *Lexipontix Programme* presented with reduced stuttering frequency, and a more positive attitude towards their speech at the end of treatment (Phase A). Further-

more, they demonstrated significant improvement in communication activities, participation in daily activities, and overall quality of life. Parents were also found to acknowledge these improvements in their child, to feel more confident in managing stuttering, and be less worried about it.

The second study (Fourlas, Ntourou, Spyridis & Batzifoti, 2021) explored the parental perspectives and expectations of, and experiences with, the *Lexipontix Programme*. Results demonstrate that parents' expectations for *Lexipontix* were largely fulfilled. Parents rated different aspects of the Programme highly, and they reported positive changes in various domains (e.g., cognitive, affective, motoric, environmental). These domains correspond to the related fields of the Formulation Chart, and as such, are indicative of changes in the overall stuttering experience of parents and child.

Conclusion

Everybody has won, and all must have prizes

Carroll, 1865

Research has uncovered the so-called “Dodo Effect”, which describes that – with rare exceptions – there is little significant difference in effectiveness between different psychotherapeutic approaches (Tallman & Bohart, 2004). Research has shown that it is the similarities – the “Common Factors” – rather than the differences between approaches that account for the observation that all approaches are, in general, effective. (Herder, Howard, Nye & Vanryckeghem, 2006; Law, Garrett & Nye, 2004; Robey, 1998; Zebrowski, 2012). The Common Factors that account for the effectiveness of an approach and their contributing percentages, are:

- the Therapeutic Relationship (the strength of the Therapeutic Alliance between the therapist and client) – accounts for 30%;
- the Extra-therapeutic Change (the resources of the client and his system, characteristics of the child and family that facilitate or hamper progress) – accounts for 40%;
- the Technique (evidence based, theoretically orientated, therapeutic methods, strategies, or tactics) – accounts for 15%;
- the Hope/Expectancy (how much the client becomes hopeful and believes in therapy as well as how much the therapist believes in the credibility of the treatment) – accounts for 15% (Assay & Lambert, 1999; Bernstein Ratner, 2005; Franken, Kielstra-Van der Schalk & Boelens, 2005; Hubble, Duncan & Miller, 1999; Lambert & Bergin, 1994; Miller, Duncan, & Hubble 1997).



Right from the beginning, the *Lexipontix Programme* explores the participants' expectations and Best Hopes from therapy. The Programme builds *Alliances*, strong therapeutic relationships, and uses "techniques" in order to make best use of the Extra-therapeutic Factors, i.e., the resources of the child and their family system, to guide them towards their Best Hopes. The *Lexipontix Programme* activates all the Common Factors in a minimal and meaningful way, making optimum use of the resources of the clients and the therapist. It is fun, concise and goal-directed, comprehensive but also flexible, and is easily tailorable to meet individual needs. It is supported by a smart assessment process, based on the ICF model, that results in mapping the overall stuttering experience of the child in the Formulation Chart. The Formulation Chart indicates the appropriate Modules for each child to be activated in the Modular Structure of the Programme. Therapists are provided with all the necessary Assessment and Therapy Manuals, material, forms and games in order to implement the Programme. A Solution Focused Brief Therapy approach (de Shazer et al., 2007), in all therapeutic work, drives therapy throughout the Programme. The *Lexipontix Programme* is a challenge, for both clinician and client. Therapists need to acknowledge the expertise of their clients, and to move from the traditional "doing" role in therapy to the role of a facilitator. They also need to get specialized training in order to fulfil the specific competence of a fluency specialist clinician (European Fluency Specialists),¹ and to be able to embrace the theoretical principles of, and embark on the clinical practices proposed by, the *Lexipontix Programme*. Clients may present with different levels of readiness for change and for taking the responsibility of their own therapy. *Lexipontix* is a challenge for all. It is a challenge worth taking up.

Multiple Choice Questions

- A. Alice, an 11-years old girl who stutters, is attending the *Lexipontix Programme*.
1. Who participates in her speech and language therapy sessions regularly?
 - a) Alice;
 - b) Alice's parents;
 - c) Alice together with her parents;
 - d) Alice's teacher.
 2. How many sessions have been scheduled for Phase A of the *Lexipontix Programme*?
 - a) 13;
 - b) 8;

¹ <http://www.europeanfluencyspecialists.eu/>

- c) 16;
- d) 5.

B. Nicholas is a 9-years old boy who stutters. At school he experiences teasing by his classmates who call him Ni-Ni-Nicholas all the time.

1. Where would you classify this data on Nicholas' Formulation Chart?
 - a) Body Function;
 - b) Activity & Participation;
 - c) Personal Factors;
 - d) Environmental Factors;
2. Which two *Lexipontix Programme* Modules would help him best to deal with teasing?
 - a) Talking Back;
 - b) Easy Onset (Airplane Talk);
 - c) Recruitment of new Allies;
 - d) Teacher Alliance.

C. Jason is a 10-years old boy who stutters. His stuttering involves repetitions and blocks with a stuttering frequency of %SS=4.

1. Where would you classify this data on Jason's Formulation Chart?
 - a) Body Function;
 - b) Activity & Participation;
 - c) Personal Factors;
 - d) Environmental Factors.

D. Jason (the child described in question 3) avoids reading aloud in class, and he has never spoken to others about his stuttering openly.

1. Where would you classify this data on Jason's Formulation Chart?
 - a) Body Function;
 - b) Activity & Participation;
 - c) Personal Factors;
 - d) Environmental Factors;
2. Which Modules would you consider activating in the Modular Structure of the *Lexipontix Programme*?
 - a) Blue Tools;
 - b) Red Tools;
 - c) Yellow Tools;
 - d) Desensitization Tools.



Suggested Reading

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