# THE CAMPERDOWN PROGRAM STUTTERING TREATMENT GUIDE

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### CAMPERDOWN PROGRAM OVERVIEW

#### PROFESSIONAL ISSUES

# Qualified practitioners

This treatment guide is intended for use by speech pathologists. Speech pathologists are known by various other terms including speech-language pathologists and speech-language therapists. In this guide the generic term clinician is used.

It is essential that a professionally qualified clinician trains and supervises adults and adolescents who are being treated with the Camperdown Program. This guide is intended as a resource for use by clinicians during that process. The guide is not intended for use by other professionals or by clients without the support of a clinician.

# **Camperdown Program Training**

Training from the Camperdown Program Trainers Consortium is available for postgraduate clinicians and speech pathology students who are in their final semester. Training involves two days of instruction and demonstration. For more information about training courses locally and internationally contact Jane Kelly (jane.kelly@sydney.edu.au).

# Individual, intensive or group treatment

This guide will be applied most easily to clients who receive treatment for around 45–60 minutes with weekly consultations. However, the Camperdown Program is conceptually rather than procedurally driven, and its fundamental concepts can be applied to intensive or group treatment or a combination of different formats. The guide concludes with a section about adapting the treatment for telepractice and for adolescent clients.

# TREATMENT OVERVIEW

# A behavioural treatment

The Camperdown Program is a behavioural treatment recommended for use with adults and adolescents older than 12 years. It is a variant of the well-established speech restructuring programs, however, it uses a Training Model to demonstrate and teach speech spoken in a slow and exaggerated manner. This is the stuttering control mechanism for this treatment. The Camperdown Program is suitable for use with mild or severe stuttering. The aim is to reduce the client's stuttering during everyday talking.

### Social anxiety management

The Camperdown Program does not routinely incorporate standardised strategies to deal with social anxiety associated with stuttering. However, treatment sessions during Stage III can incorporate such procedures when required. A tutorial is available<sup>2</sup> for clinicians who wish to provide cognitive behaviour therapy (CBT) for stuttering clients. Additionally, a standalone Internet treatment website<sup>3</sup> will soon be available to the public to provide CBT for stuttering clients who require it.

# Clinical measurement

Rating scales are used to measure client speech and anxiety in and outside the clinic throughout treatment. The simplicity of the scales makes them an ideal means of communication for quantifying the extent of the problem initially and for setting short- and long-term goals for treatment. They also facilitate self-evaluation and self-management of speech strategies throughout the program and in the longer term. Finally, they can be used by clients to communicate progress to the clinician quickly and effectively so that improvement can be monitored and evaluated constantly.

# Self managed procedures

Clients are taught to use an individualised fluency technique to control their stuttering. The program emphasises self-managed procedures so that clients may be better equipped to deal with

any increase in stuttering after treatment. Clients initially learn to evaluate their speech and solve problems in the treatment environment and then they do this during their everyday talking. These self-evaluation techniques help to equip clients to be responsible for maintenance of speech gains in the long term.

### Clients learn to:

- (1) Set realistic speech goals and evaluate outcomes routinely
- (2) Establish, evaluate and alter practice activities in response to everyday speech challenges
- (3) Evaluate their speech-related anxiety and avoidance during their everyday talking
- (4) Identify individual or environmental variables that increase or reduce their stuttering
- (5) Plan strategies for long-term stuttering control during daily life

# Program stages

# Stage 1: Teaching treatment components

During Stage I clients learn the skills needed to undertake the program. These include learning to use a fluency technique adapted from the Training Model, and being able to use speech measures including the Stuttering Severity Scale and the Fluency Technique Scale.

# Stage II: Establishing natural-sounding stutter-free speech with the clinician

During Stage II clients learn to shape their unnatural-sounding stutter-free speech into more natural-sounding speech while retaining low levels of stuttering. In place of the more traditional programmed instruction for this process, the Camperdown Program involves massed practice procedures. The goal is for clients to develop consistent control of their stuttering, refine their speech self-evaluation skills, and develop problem-solving strategies while talking with the clinician. There is no expectation at this stage that clients will use their fluency technique or be able to control their stuttering during their everyday talking.

#### Stage III: Generalisation

During Stage III clients develop strategies for controlling their stuttering during their everyday talking.

# Stage IV: Maintaining stuttering control

During Stage IV clients develop problem-solving skills to maintain low stuttering levels for the long term and to deal with any increase in stuttering should this occur.

#### Resource materials

In addition to the clinical materials in the appendices of this treatment guide, the following videos and audios are downloadable without cost from the Australian Stuttering Research Centre website.<sup>4</sup>

- (1) The Training Model spoken by adolescents and adults of both genders
- (2) Speech at different fluency technique levels.

# The Camperdown Program evidence base at April 2018

The development of the Camperdown Program was prompted by two laboratory experiments<sup>5,6</sup> and a Phase I clinical trial of a speech restructuring treatment.<sup>7</sup> Efficacy was established with Phase I and Phase II trials<sup>8,9</sup> and subsequent clinical trials established the viability of the treatment in a student university clinic<sup>10</sup> and with telepractice delivery format.<sup>11,12,13</sup> A randomised controlled trial showed that the treatment is equally efficacious in telepractice format and more time efficient.<sup>14</sup> There are two preliminary trials of the treatment in a standalone Internet treatment version.<sup>1516</sup> The Camperdown Program clinical trial evidence base includes adolescents treated with in-clinic and webcam telepractice formats.<sup>12,13,17</sup> There is no evidence for its efficacy with children younger than 12 and simpler treatments are likely to be more effective and appropriate.

Camperdown Program treatment times vary with different clients and different delivery formats. Around 10–20 hours are required for adults to complete Stages I–III of the program. Slightly more hours may be required for adolescents.

### STAGE I TEACHING TREATMENT COMPONENTS

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#### **OVERVIEW**

Stage I typically takes between three and five 45-60 minute consultations during which clients:

- (1) Are given an overview of the program
- (2) Learn to use the 9-point Stuttering Severity Scale
- (3) Learn to control their stuttering using the Training Model with a fluency technique level 7–8 during spontaneous speech
- (4) Learn to use the 9-point Fluency Technique Scale.

During the first consultation, the clinician gives an overview of the program, including the purpose of the fluency technique, the stages of the program, the importance of self-evaluation and self-managed strategies, the role of practice and the fact that the treatment offers a mechanism for control of stuttering rather than a cure.

Next, the clinician introduces the Stuttering Severity Scale beginning with the reasons for using the scale. Then the client is trained to use the scale as outlined below. Different ways to collect stuttering severity scores would typically be discussed. The remainder of the first consultation will be spent introducing and teaching the Camperdown Program fluency technique to the client as outlined below. A number of independent practice tasks can be suggested for the client following the first consultation, for example, collection of stuttering severity scores during everyday talking activities and ways to practise the fluency technique daily.

The majority of subsequent stage I consultations are likely to be devoted to establishing agreement with stuttering severity scores and improving the client's fluency technique. Clients will frequently be asked to focus on the absence of stuttering and the feeling of control over their stuttering rather than on the sound of their speech. They will also be reassured that this is only a first step and that more natural-sounding speech is the ultimate goal of treatment. There is still no attempt to make this speech sound more natural. Clients should aim to be stutter-free with the clinician using their fluency technique at all times.

Once the client has a stable technique in conversational speech with a fluency technique level 7–8, the Fluency Technique Scale can be introduced as outlined below.

# THE STUTTERING SEVERITY SCALE

#### Overview

The Stuttering Severity Scale is used to quantify stuttering behaviours. It is not used to evaluate feelings of anxiety or loss of control experienced by many who stutter. Anxiety measures can be used for this purpose and are described later. Severity scores are given in relation to the population of adults who stutter, not just the client at the clinic. Therefore the most severe score on the Stuttering Severity Scale would represent the most severe stuttering that can be imagined in the population of adults who stutter, while the least severe score might be assigned to stuttering that is so mild or infrequent that it goes unnoticed by a casual observer.

# The Stuttering Severity Scale

The Stuttering Severity Scale is presented below and in Appendix One. Only the scores 0, 1 and 8 need be defined, but it can be helpful to think of the other scores in the following way.



Although clinicians do not need to use the following prompts with clients directly, they may find them helpful when assigning a number on the scale themselves.

- (1) Was there any stuttering? If not, then a score of 0 would be appropriate. If yes, the score could be from 1–8, so ask the next question.
- (2) If there was stuttering, would it have been heard or noticed by a casual listener? A casual listener is someone who has no stuttering background; someone from the general public who might be encountered in an everyday situation. If not, then a score of 1 might be appropriate. If a casual listener would have noticed the stuttering, the score could be from 2–8, so ask the next question
- (3) How noticeable was the stuttering and how much did it interfere with the communication? In other words, how much did stuttering interfere with the message getting across: mildly, moderately, severely or extremely severely?

It is a score of 2-3; the stuttering is starting to become obvious but the client still

If the answer to question (3) is:

Mildly

,	easily gets the message across.
Moderately	It is a score of 4–5; the stuttering is obvious to casual observers and the client is beginning to have trouble getting the message across.

Severely It is a score of 6–7; the stuttering is very obvious to casual observers and the client is struggling to get the message across.

Extremely It is a score of 8; the stuttering is very obvious to casual observers and the severely stuttering completely overrides the message of the client.

# Training the client to use the Stuttering Severity Scale

The client is trained to use the Stuttering Severity Scale during the first clinic visit. It is important for the clinician to explain why learning to use the scale is important to the program: to provide a common language between clinician and client; to quantify stuttering severity before treatment; for collecting measures during everyday talking; and to quantify progress during and after treatment.

The clinician shows the scale to the client and explains how to use it. The clinician then converses with the client for a few minutes. This conversation is recorded. When a sample has been obtained both the clinician and client assign a stuttering severity score to that sample immediately before listening to the recording and then after listening to the recording. The client's score should always be obtained before the clinician provides feedback. Differences in scores, along with the reasons for giving scores, are discussed, providing an opportunity for the clinician to find out how clients view their speech.

# Accurate client scores are essential

The clinician's judgement is used as the standard for the process described above. The procedure is repeated at the start of each clinic visit and provides clients with an opportunity to refine and validate their scores. Scores from recorded conversations during consultations and from everyday talking are compared and discussed each week during Stage I until reasonable agreement occurs between client and clinician scores. Reasonable agreement is when client and clinician scores agree or differ by no more than one scale value.

Clients use the Stuttering Severity Scale to evaluate and document their stuttering severity during treatment sessions and to monitor stuttering severity during everyday talking. These measures are used to monitor progress and to modify treatment goals and strategies. It is therefore important for clinician and client scores to mean the same thing. There is typically reasonable agreement between client and clinician scores with minimal training. Regardless, it is important to confirm agreement between client and clinician scores during the first few sessions and regularly after that.

# A flexible measurement

Stuttering severity scores are a covert and flexible way for the clinician and the client to measure stuttering severity throughout treatment. The Stuttering Severity Scale can be used to provide different scores for different purposes at different stages of treatment. At assessment and at the beginning of Stage I, the scores are used to quantify the extent of the stuttering problem, noting the variability that occurs in different situations or with different people.

Clients may give either a typical score (often defined as around 75% of the time), or a highest and lowest score for any situation or any day. Throughout treatment, clients can report stuttering severity scores in various ways. For example, scores may be given for a specific period, a specific situation, or for a specific speech practice exercise. Clients can also report a typical or highest score for a day or for a week. Clients are able to use the scale to report their speech outcome for many speaking situations that would otherwise not easily be amenable to valid or reliable measurement.

# Documenting stuttering severity scores

The Situations Measurement Chart, which is presented in Appendix Two, may be used to record stuttering severity scores before beginning treatment. Clients choose five or six situations that reflect their typical everyday activities and stuttering severity variability, and which will be possible situations to target later in treatment. Alternatively, the Daily Measurement Chart presented in Appendix Three may be used for this purpose.

There are many ways that clients can also share stuttering severity scores electronically with the clinician, using smart phones, electronic tablets or laptops. Options include e-mail, Dropbox, CloudStor, and password protected web based spreadsheets such as Google Docs. Regardless of the method used, the aim is for clients to collect scores regularly, in a variety of situations, with as little effort as possible. Clients will differ with how they achieve that.

# Independent practice tasks

A number of independent practice tasks can be suggested to support teaching the Stuttering Severity Scale. Clients can be instructed to audio-record and assign stuttering severity scores to several short, everyday talking situations. These might include talking on the phone or talking with family or work colleagues. Those scores can be discussed with the clinician at the following consultation. Clients can also be encouraged to experiment with different methods for documenting typical stuttering severity scores.

### THE CAMPERDOWN PROGRAM FLUENCY TECHNIQUE

# Overview

During Stage I consultations, clients are also trained to produce an individualised fluency technique using the Camperdown Training Model. Different models can be downloaded from the Australian Stuttering Research Centre website. Clients watch or listen to a video or audio recording of one of the Training Models, which demonstrate slow and exaggerated speech. They attempt to reproduce this fluency technique as closely as possible. There is no attempt to standardise any descriptive features of this fluency technique, such as hard or soft contact sounds, gentle beginnings to words, or the prolongation of vowel sounds. This feature of the Camperdown Program is based on laboratory evidence that clinicians do not agree well on whether clients use such behaviours correctly or incorrectly, and that clinical use of those descriptive features is not necessary during the treatment process. The latter report showed that different clients might benefit from using different features of the Training Model. Consequently, during the Camperdown Program clients are encouraged to use the Training Model to develop an individualised fluency technique.

### Teaching the Camperdown fluency technique

# Client introduction

The clinician first gives the client an explanation of how and why a fluency technique is used, being careful to stress that the aim of treatment is to ultimately use a modified version of the Training Model that sounds natural during their everyday talking. Clients then watch or listen to one of the Training Models while viewing, not reading aloud, the accompanying text (see Appendix Four). Clients are asked to describe the speech used by the model using their own terminology. Subsequently, the clinician uses the client's descriptive terminology for future discussion and feedback.

# Reading in unison with the Training Model

After listening to the model several times, the client reads the text in unison with the clinician and the recording. The client then reads the passage, sentence by sentence, after the Training Model.

The passage may also be broken into smaller units, such as phrases, for imitation. Recording each client attempt and allowing comparison with the model is important. The clinician gives feedback using the client terminology for the speech pattern after they have evaluated each attempt. This encourages clients to self-evaluate their speech production.

# Reading the passage independently

The aim of this process is for clients ultimately to read the entire passage independently, sounding like the model, with no stuttering, and feeling completely in control of their stuttering. This process will likely take several sessions. Clients need to download a copy of the Training Model to a laptop, smart phone or tablet and to practise with this between clinic consultations.

# Using the fluency technique in other contexts

Next, clients practise this new fluency technique while reading other material, then while talking in monologue, and finally in conversation with the clinician. It is important at this stage for clients to continue to speak slowly and unnaturally and to continue to feel completely in control of stuttering. It is also important for clinicians to use their customary speech during the conversation part of this process, apart from imitating the model for short periods for the benefit of clients.

### Independent Practice

The fluency technique can be practised at home with and without the Training Model. This practice can occur in a range of tasks including reading aloud, speaking alone, or conversing with a practice partner. Clients record these attempts for self-evaluation and discussion with the clinician at the next consultation.

### THE FLUENCY TECHNIQUE SCALE

#### Overview

As described above, clients are initially taught to use unnatural-sounding speech (their fluency technique) to control their stuttering, and during subsequent consultations they learn to make their speech sound more natural. Therefore it is important for clients to be able to measure and report not only the severity of their stuttering in different situations but also how much technique they are using.

Therefore a 9-point Fluency Technique Scale is used where 0 = no speech technique, and 8 = similar to the Training Model. Clients and clinicians use the scale to monitor clients' fluency technique during treatment consultations and during their everyday talking, and to ensure that stuttering reduction does not come at the expense of speech naturalness.

# The Fluency Technique Scale

The Fluency Technique Scale is presented below and in Appendix One. Recordings of speech using varying fluency technique scores can be downloaded from the Australian Stuttering Research Centre website.<sup>4</sup>



These descriptions are provided to guide assigning scores with the Fluency Technique Scale:

- 0 Natural sounding speech with no fluency technique used.
- 1 Natural sounding speech with minimal fluency technique used to control stuttering, probably not obvious to any listener.
- 2 Natural sounding speech with some fluency technique being used to control stuttering, probably obvious only to a familiar listener.
- 3 Fluency technique will be obvious enough to be noticed by an unfamiliar listener,

such as a shop assistant.

- 4–6 Useful level for clients to practise the fluency technique in the clinic environment.
- 7–8 Exaggerated fluency technique, similar to the Training Model. Typically eliminates all stuttering, and is useful for practicing the fluency technique. It is unlikely that clients will be comfortable using this or levels 4-6 during their everyday talking.

# Training clients to use the Fluency Technique Scale

Training to use the scale typically begins after the client has listened to and practised with the Training Model and has good mastery of the Camperdown fluency technique. However, it can be useful to make reference to the concept of naturalness earlier, especially to reassure clients that the ultimate goal of treatment is natural sounding speech. As with the Stuttering Severity Scale, explaining why the Fluency Technique Scale is important precedes an explanation about how it is used.

The clinician then explains the scale. It is useful for the clinician to demonstrate speech at different fluency technique scores, however the website examples can be used. Note that the website models are only examples of different ways to use or shape the fluency technique, not a model of how any particular technique level should sound.

While there is no expectation that clients will be able to use their fluency technique at these different levels during Stage I, it is useful for them to experiment with their fluency technique a little and to be able to recognise the different scores on the Fluency Technique Scale before moving into Stage II of the program.

# Documenting fluency technique scores

Fluency technique scores are typically used in conjunction with stuttering severity scores during Stages II, III and IV. During Stage II, they will be documented on the Fluency Cycles Chart, which is presented in Appendix Five. During Stages III and IV, they will be recorded on the Daily Measurement Chart (Appendix Three) or the Situations Measurement Chart (Appendix Two) whenever Stuttering Severity Scale scores are recorded there.

# **ANXIETY MEASURES**

Speech-related anxiety is common for adults who present for stuttering treatment, and there is evidence that it prevents maintenance of treatment gains. <sup>18</sup> Therefore it is useful to have clinical measures of speech-related anxiety to inform clinical decision-making or referral to a clinical psychologist if needed.

### Subjective Units of Distress Scale (SUDS)

Clients can measure anxiety with the following 11-point Subjective Units of Distress Scale (SUDS), <sup>19</sup> which is also presented in Appendix One.



Clients can record SUDS scores for everyday speaking situations on the Situations Measurement Chart (Appendix One), along with their stuttering severity scores and their fluency technique scores.

# Situation Avoidance

Situation avoidance is associated with speech-related anxiety. Avoidance of situations can be described as *rarely, sometimes* or *usually*. Clients can use those terms to record their situation avoidance for everyday speaking situations on the Situations Measurement Chart (Appendix Two), along with their stuttering severity scores and their fluency technique scores.

# **PROGRESSION CRITERIA**

Clients move from Stage I to Stage II of the Camperdown Program when they are able to:

- (1) Assign self scores with the Stuttering Severity Scale that are similar to the clinician's scores
- (2) Consistently throughout the consultation use a fluency technique that approximates the Training Model to control stuttering, with a stuttering severity score of 0 and a fluency technique score of 7–8. It is very important for clients to also report feeling in control of their stuttering.
- (3) Recognise various fluency technique scores when demonstrated by the clinician or from recordings at the Australian Stuttering Research Centre website.<sup>4</sup>

#### STAGE II ESTABLISHING STUTTER-FREE SPEECH

#### **OVERVIEW**

The purpose of Stage II of the Camperdown Program is to assist clients to use features of the Training Model to develop an individualised, reasonably natural-sounding fluency technique to control stuttering while talking with the clinician. That technique ultimately needs to be acceptable to the client for controlling their stuttering during their everyday talking.

Some clients may find it more difficult to control their stuttering than others. For example, clients with extremely severe stuttering may not achieve stutter-free speech without sacrificing some degree of speech naturalness. It then becomes their choice whether to accept more stuttering or a less natural fluency technique.

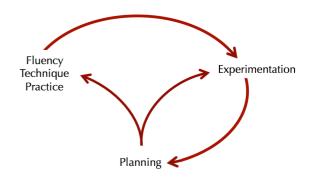
Stage II involves a series of repeated Fluency Cycles. During Stage II consultations clients:

- (1) Consolidate their imitation of the Training Model fluency technique
- (2) Work with the clinician to develop an individualised, natural sounding fluency technique that they find acceptable for stuttering control
- (3) Practise self-evaluation skills for stuttering severity and fluency technique
- (4) Develop problem-solving skills to assist later generalisation of stutter-free speech into their everyday talking.

### FLUENCY CYCLES

Fluency Cycles involve client massed practice imitating the Training Model and modifying their fluency technique to establish an individualised fluency technique for stuttering control. During each cycle, clients evaluate their stuttering severity and fluency technique and plan strategies to ultimately minimise both.

Each Fluency Cycle has three parts: Fluency Technique Practice, Experimentation and Planning. Each part takes approximately 5 minutes. Clients complete as many cycles over as many weeks as needed to achieve criteria



for progression to Stage III of the program. A diagrammatic representation of a Fluency Cycle is shown to the right.

The following description of the Fluency Cycles can be read in conjunction with the Fluency Cycles Chart, which is presented in Appendix Five.

# Fluency Technique Practice

This is the first part of a Fluency Cycle. The aim of Fluency Technique Practice is to consolidate the fluency technique learned during Stage I. Repeating this process during Fluency Cycles ensures that the basic skill of controlling stuttering is retained. No attempt is made to sound natural.

The Fluency Technique Practice portion of the Fluency Cycles Chart is shown to the right.

For 3–4 minutes, clients practise speaking as closely as possible to the Training Model, with a stuttering severity score of 0 and a fluency technique score 7–8. In the interests of having clients take responsibility for formulating their own treatment strategies, they choose from several options for talking:

(1) Practise in unison with the training model

	FLUENCY TECHNIQUE PRACTICE														
	GC	DAL	EVALUATION												
	speaking	chieve while g like the g Model	Scores I gave myself while speaking like the Training Model												
Cycle	Stuttering Severity	Fluency Technique	Stuttering Severity	Fluency Technique											
1	0	7–8													
2	0	7–8													
3	0	7–8													
4	0	7–8													
5	0	7–8													

- (2) Reading aloud any written material
- (3) Talking about a designated topic such as a recent holiday or favourite movie
- (4) Conversation with the clinician.

It is important for clients to justify to the clinician their choice from the above tasks in terms of their treatment needs. For example, clients who are comfortable with their fluency technique and feel it is stable may choose to converse with the clinician. Clients who are not so confident may choose to practise in unison with the Training Model. Alternatively, they may choose to read aloud if they find it difficult to focus on fluency technique and speech content at the same time.

Throughout the Fluency Technique Practice, the aim is for client speech to continue to sound like the Training Model, with fluency technique scores of 7–8, and to remain stutter-free with stuttering severity scores of 0. It is useful for Fluency Technique Practice to be audio-recorded for reevaluation by the client or clinician if needed.

After practising, clients suggest stuttering severity and fluency technique scores they think they achieved while talking, and write them in the Fluency Cycles Chart. Feedback by the clinician is given in the same manner as during Stage I.

# Experimentation

The second part of a Fluency Cycle is Experimentation, again with 3–4 minutes of speaking, while being audio recorded. Clients are encouraged to individualise their fluency technique. The aim is for clients to make their speech sound more natural by experimenting with and evaluating as many different features of the Training Model as needed, while maintaining control of their stuttering.

The Experimentation portion of the Fluency Cycles Chart is presented below. The three steps of the Experimentation part of a Fluency Cycle are as follows.

# Goal setting

The first step of Experimentation involves clients setting goals to achieve. The stuttering severity goal will always be 0, but clients will set a fluency technique goal according to their progress. How clients set this fluency technique goal will be influenced by:

- Reviewing evaluations of previous cycles to see what did or did not work
- (2) How much fluency technique was required during previous cycles

	EXPERIMENTATION														
	GC	DAL		VE ATION	RECORDING EVALUATION										
		I aim to ve next	BEFORE	k I achieved listening ecording	Scores I think I achieve AFTER listening to the recording										
Cycle	Stuttering Severity	Fluency Technique	Stuttering Severity	Fluency Technique	Stuttering Severity	Fluency Technique									
1	0														
2	0														
3	0														
4	0														
5	0														

EVEREN IENE ATION

(3) Judging how much fluency technique will be needed during the current step.

It is important for clients to try to plan this with only limited guidance from the clinician. There is no correct strategy, just one with an appropriate justification. An example may be that a client aims to achieve a fluency technique score of 3 because:

- (1) "I stuttered when I tried speaking more naturally at fluency technique 2", or
- (2) "I have practised for a while now at fluency technique 4 and feel confident to move on to fluency technique 3", or
- (3) "Although I achieved stutter-free speech at fluency technique 3 previously, I think I need more practice to feel completely in control at this level."

As with the Fluency Technique Practice part of a Fluency Cycle, clients decide whether to read, speak in monologue, or converse or even debate with the clinician, with a justification for their choice. As clients become more confident during successive Fluency Cycles, they will likely choose more difficult tasks. This 3–4 minute speaking task is to be audio-recorded for future discussion.

For the Camperdown Program to be effective, it is essential that clients plan strategies based on evaluation of previous performance. For the first Fluency Cycle, clients need guidance to select a fluency technique goal for the most natural-sounding speech that can be comfortably produced

while continuing to control stuttering. As always, the primary goal is to remain stutter-free but the secondary goal is to experiment with different features of the fluency technique.

# Live evaluation

The second step of Experimentation—the fourth and fifth columns of the diagram above—involves clients evaluating their live speech performance before listening to the audio recording of their speaking task. Clients document stuttering severity and fluency technique scores they think they achieved. At this stage the clinician does not discuss these scores with the client; the point here being to encourage clients to evaluate their speech as they would during everyday life.

# Recording evaluation

The third step of Experimentation—the final two columns of the diagram above—involves clients evaluating their speech performance for stuttering severity and fluency technique after listening to the audio recording. In consultation with the clinician, agreement about that evaluation needs to be reached by both parties.

# Planning

This is the third and final part of a Fluency Cycle. Initially with guidance from the clinician and ultimately on their own, clients use evaluations from previous fluency cycles to plan a strategy and set stuttering severity and fluency technique goals for the next cycle. The planning portion of the Fluency Cycles Chart is to the right.

Clients who attain a stuttering severity score of 2 or greater during the previous Experimentation part of a Fluency Cycle return to the Fluency Technique Practice part to start the next cycle.

Clients who attain a stuttering severity score of 0–1 can choose to begin the next cycle either at Fluency Technique Practice or Experimentation.

Regardless, it is important for clients to begin at least every third cycle at the Fluency Technique Practice part. This serves to consolidate their basic fluency technique and prepares them for return to this practice level should it be needed at any future time.

If the client consistently attains a stuttering severity score of 0–1 over many cycles, he may choose to practise during the Fluency Technique Practice part of a cycle with a fluency technique score at a more natural sounding 4–5.

If the client consistently produces stutter-free speech with exaggerated fluency technique (scores of 5 or more) during the Experimentation part of a Fluency Cycle, the clinician might encourage more natural sounding speech during subsequent cycles.

	Stuttering severity 2+ FLUENCY TECHNIQUE PRACTICE
	Stuttering severity 0–1 FLUENCY TECHNIQUE PRACTICE Or EXPERIMENTATION
	Every third cycle go to FLUENCY TECHNIQUE PRACTICE
Cycle	Plan for Next Cycle
1	
2	
3	
4	
5	

**PLANNING** 

My plan for the next cycle

# INDEPENDENT PRACTICE TASKS

Once the Fluency Cycles process is under way, much of it can be done by the client with a supportive person between consultations at home or work. Clients are encouraged to complete as many Fluency Cycles as possible in this manner. The Fluency Cycles Instructions at Appendix Six provide information for clients to support such independent practice.

The procedure for completing Fluency Cycles independently is similar to the procedure used during consultations. Clients continue to document goals, record themselves speaking while aiming to achieve those goals, evaluate each attempt, and plan for the next cycle.

Fluency Cycles need to be completed with a supportive person. Reading or speaking in a monologue are appropriate speech tasks for some Fluency Cycles, but the majority of practice needs to be in conversation. Completing Fluency Cycles between consultations will hasten treatment progress, assist generalisation, and encourage self-management. Independent progress is recorded the same way as during consultations on the Fluency Cycles Chart.

Clients may also be encouraged to record a typical daily stuttering severity score using the Daily Measurement Chart. However, the procedure at this stage is only to familiarise clients with the

measurement documentation process. There is not yet any expectation that generalisation of stutter-free speech into everyday talking will occur.

# PROGRESSION CRITERIA

At the end of Stage II, clients are encouraged to use their fluency technique during their everyday talking. Clients move from Stage II to Stage III of the Camperdown Program when an individualised fluency technique to control stuttering in conversation has been developed. Stage III begins when clients can speak with the clinician for the entire consultation at a stuttering severity score of 0–1 and a fluency technique score acceptable to the client.

The number of Stage II consultations will vary depending on factors including the client's stuttering severity pre-treatment, commitment to and opportunities for regular practice, and regularity of attendance at consultations.

#### STAGE III GENERALISATION

#### **OVERVIEW**

The number of Stage III consultations will vary according to factors such as commitment to and completion of regular speech practice in everyday talking, regularity of attendance at consultations, and speech-related anxiety.

During Stage III consultations clients:

- (1) Confirm that they can still use a fluency technique to control their stuttering
- (2) Compare their speech measures during the consultation with those of the clinician
- (3) Review and revise their fluency technique practice routine
- (4) Report their stuttering severity, fluency technique and speech-related anxiety scores from their everyday talking
- (5) Present and discuss speech measures obtained from recordings of their speech during targeted speaking situations
- (6) Interpret those speech measures with the clinician and plan strategies to resolve any problems
- (7) Devise an individualised hierarchy of targeted speaking situations to assist transfer of their fluency technique into their everyday talking
- (8) Plan treatment changes for the coming week based on speech measures
- (9) Modify measurement procedures if required
- (10) Summarise treatment changes for the coming week

The following events normally occur during a Stage III consultation.

# **CONFIRMATION OF FLUENCY TECHNIQUE**

Throughout the consultation the goal is for clients to be stutter-free or close to it, and to monitor their speech. An initial brief conversation between clinician and client establishes if clients remain able to consistently use their fluency technique to control their stuttering. This is an important conversation because if clients are unable to control stuttering with the clinician, they are unlikely to do so in the more challenging conversations of everyday life.

If clients are unable to control stuttering with the clinician they determine what needs to change and plan a strategy to do this, in the same manner as was done during the Fluency Cycles. It is important for clients to take responsibility for problem solving in this manner and to minimise reliance on the clinician. If necessary, the remainder of the consultation may be spent with problem solving and appropriate practice tasks can be designed for the following week.

If speech is stutter-free but sounding fairly unnatural, the client might be encouraged to use less fluency technique. As a general rule, the less technique used the better, as long as clients are able to control stuttering at an acceptable level.

### COMPARISON OF SPEECH MEASURES

This initial conversation between clinician and client can also be used to compare and confirm client stuttering severity and fluency technique scores. Clients suggest scores for the conversation. The clinician and client compare scores and discuss any differences. This step is important because it validates the scores that the client is reporting each week from their targeted speaking situations and their everyday talking. Scores are entered in the client file.

### FLUENCY TECHNIQUE PRACTICE REVIEW

The clinician reviews with clients their fluency technique practice routines. The type and amount of fluency technique practice recommended between Stage III consults will vary according to client routines, goals, and treatment progress. The practice needs to be appropriate for the client's progress at the time, and it needs to be constantly evaluated and re-evaluated to make sure it is achieving the desired goals. Where possible, fluency technique practice is best integrated into

daily routines so that additional time to practise does not need to be found. It is also useful for clients to audio record and evaluate practice attempts for problem solving and future goal setting. There are three types of fluency technique practice, as described below.

# Basic fluency technique practice

The focus here is on practising and consolidating the fluency technique in simple tasks similar to those where it was originally learnt. It may involve only practising the fluency technique at higher levels (6-8) or alternating between higher and slightly lower levels. The practice may be done alone or with a practice partner. The emphasis should be for clients to feel totally in control of their stuttering. Examples of practice activities might include:

- (1) Reading the Training Text in unison with or after the Training Model
- (2) Reading other texts aloud at fluency technique level 5-8
- (3) Describing a picture at technique level 5-8
- (4) Speaking in monologue or reading aloud for short periods at different fluency technique levels, for example, a minute at level 6, then a minute at level 4, a minute at level 2 and then back to level 4
- (5) Revising Fluency Cycles with a support person or practice partner

Basic fluency technique practice involves subsequent evaluation of success and planning strategies to resolve any difficulties. This will be the focus of a consultation and subsequent home assignments if the client has any difficulty maintaining a good fluency technique with the clinician.

# Practice in controlled speaking activities

In contrast to basic fluency technique practice, practice in controlled speaking activities involves practising the fluency technique in real or simulated situations that are less structured but still mostly controllable, at least in terms of content and duration. The activity or conversation topic will usually be more complex than during basic fluency technique practice. Clients set a fluency technique goal that aims to control stuttering, for use in the speaking activity. Examples might include:

- (1) Talking with a practice partner or other supportive person
- (2) Meeting with a formal support group for speech practice
- (3) Reading a book to a listener
- (4) Rehearsing a speech or presentation out loud
- (5) Role playing a job interview with a friend
- (6) Having a conversation with a practice partner over loud noise (TV/radio)
- (7) Using a web based simulated situation program such as Scenari-Aid<sup>20</sup>

# Practice in planned everyday conversations

The aim here is for clients to use their fluency technique during planned everyday conversations. While all variables cannot be controlled, the type of activity and the timing of the situation are chosen rather than unexpected. The focus is on one pre-selected task at a time with a targeted fluency technique goal. This type of practice will be useful for clients who use their fluency technique effectively with the clinician or in some of their everyday talking, but report difficulties in particular situations. Examples might include:

- (1) Phoning or visiting a shop or business, for example, a travel agent or bank, to make an enquiry
- (2) Deliberately engaging a supermarket check-out operator in conversation
- (3) Ordering take-away over the phone
- (4) Ordering a meal or coffee in a restaurant or bar
- (5) Choosing a work colleague to speak with during a lunch or work break
- (6) Making introductions during work or social meetings
- (7) Conversing with a family member while they deliberately interrupt the client.

# REPORTING AND INTERPRETING WEEKLY SPEECH MEASURES AND EVALUATION OF RECORDINGS

At the start of Stage III, clients will frequently be using the Daily Measurement Chart (Appendix Three) to document their everyday speech measures. They will record a typical stuttering severity score for each day and a highest score, with a corresponding fluency technique score. For the highest severity score, the situation or situations where this occurred will be noted. Over the course of Stage III consultations, difficult situations for clients will become evident and can be targeted for specific treatment focus. The Situations Measurement Chart (Appendix Two) can be used to assist this process, as targeted speaking situations can be noted on this form. Throughout treatment, the method for collecting and documenting measures will change according to client focus and need.

Discussion of weekly progress focuses on these beyond-clinic scores, the scores for speech during the consultation, and scores given to audio recordings that clients make during different speaking tasks during the week. Other measures can be used, as needed on the Situations Measurement Chart, such as a SUDS anxiety score or an avoidance score.

# PLANNING OF TREATMENT CHANGES AND MODIFYING WEEKLY SPEECH MEASURES

Speech measures and audio recordings are used as the focus for detailed discussion about weekly progress. Low stuttering severity scores are generally the goal, indicating that stuttering is mostly controlled. However, clients may achieve such low scores at the cost of unacceptably high fluency technique scores. In such cases, problem-solving activities need to be directed towards using an increasingly more acceptable-sounding fluency technique.

If high stuttering severity scores are reported, discussion needs to focus on why the fluency technique does not control stuttering. Some reasons may be that clients simply omit to use their fluency technique, fluency technique practice may be inappropriate or lacking, the linguistic and cognitive demands of some situations may be particularly challenging, or the presence of speech-related anxiety in some or all speaking situations may be influencing performance.

Redesigning and re-evaluation of practice routines and incorporating reminder systems can often assist maintenance of an effective fluency technique. Also incorporating technique practice into daily routines avoids the necessity to find additional time in the day to do this.

Collection of SUDs can help determine if anxiety is an issue. Simple CBT strategies, as outlined in a published tutorial,<sup>21</sup> can be used by suitably experienced speech pathologists to address anxiety. Alternatively, our clinician-free Internet CBT program developed by a psychologist to specifically address anxiety in adults who stutter can be accessed and used in conjunction with speech tasks. The clinician and client could work through this together or the client may use it on his own. For other clients, referral to a psychologist may be the most appropriate action.

Speech practice during increasingly complex cognitive activities can help to address difficulties with increased cognitive load in everyday speaking situations. Simple time-pressure tasks or practising speaking using more linguistically complex material (for example, debating topics) can be challenging when trying to retain a good fluency technique and therefore good practice.

### INDIVIDUALISED SPEECH TASK HIERARCHY

This program avoids the use of a standardised hierarchy of speech practice tasks. Clients can design an individualised list of situations for targeting during problem-solving activities. It is also important to note that the order and manner in which such situations are targeted will be influenced by the underpinning reason for the difficulty in that situation, not on pre-determined ideas about what situations are easiest and hardest for the majority of clients. Therefore treatment needs to focus on the underlying reason for the difficulty, not necessarily just on further practice in that situation.

### SUMMARISE TREATMENT STRATEGIES FOR THE COMING WEEK

Towards the end of each Stage III consultation, the clinician summarises any new strategies or any changes to be made to practice tasks for the coming week along with the reasons for those changes and how their effects will be evaluated.

### **PROGRESSION CRITERIA**

The client moves from Stage III to Stage IV of the Camperdown Program when stuttering and fluency technique goals, and any others, are met for three consecutive, weekly consultations. Typically, such goals are for stuttering severity scores to be around 1 in most everyday speaking situations, with no situation avoidance, and fluency technique scores that the client finds acceptable.

Ultimately, clients decide goals appropriate to their needs. Some clients will prioritise reduced stuttering over natural-sounding speech while for others sounding natural is most important, even if that involves some stuttering. Other clients may be comfortable with reduced stuttering when required in certain situations, rather than in all situations.

# STAGE IV MAINTENANCE OF TREATMENT GAINS

#### **OVERVIEW**

During Stage IV, consultations are scheduled at less frequent intervals providing clients maintain acceptable treatment gains. The aim is for clients to self-manage any of the variations of stuttering severity that usually occur during the maintenance phase of treatment. At each consultation, clients are required to:

- (1) Maintain near stutter-free speech throughout the consultation
- (2) Present acceptable stuttering severity and fluency technique scores for representative everyday speaking situations
- (3) Confirm those scores with several audio recordings
- (4) Demonstrate how variations of stuttering severity have been dealt with appropriately

Attendance at local self-help group meetings for stuttering, and maintenance days conducted by such organisations, can be useful for many clients during Stage IV.

In the event that, over several Stage IV consultations, a client does not sustain the treatment gains established during Stage IV, more frequent consultations may be appropriate. It will likely be helpful to revise some of the Stage III treatment procedures, particularly those described under the heading "Planning of treatment changes and modifying weekly speech measures". The Problem Solving Suggestions (Appendix Seven) may be helpful in this situation.

#### **PROGRESSION CRITERIA**

It is important to note that clients will need to continue to manage the control of their stuttering and practice regularly to maintain treatment gains over the longer term. Continued attendance at self-help group meetings can be useful for this. It is common for clients after discharge from treatment to need or request further treatment at a future time. Stuttering is a relapse-prone disorder and for a number of reasons clients may not be able to sustain their focus on their fluency technique at some times in their lives. This should be discussed with the client before discharge and clients should be encouraged to seek support from a speech pathologist at any time in the future

Discharge from treatment will be negotiated between clinician and client when they can demonstrate:

- (1) Skills for monitoring their speech and controlling their stuttering
- (2) An ability to address fluctuations in stuttering severity
- (3) Achievement of personalised goals for stuttering treatment

### TELEPRACTICE AND ADOLESCENTS

#### **TELEPRACTICE**

The Camperdown Program is easily adapted for delivery by phone or webcam. The clinical trial evidence base includes participants treated this way (see Page 2). It is essential with telepractice delivery that clients make recordings and measures available electronically to the clinician each week. Indeed, all tasks stipulated during in-clinic sessions should be replicated during telepractice consultations. Methods described on page 5 can be adapted. The clinician will also need to make clinical materials, such as the Fluency Cycles Form and Stuttering Severity and Fluency Technique Scales available electronically to the client.

### **ADOLESCENTS**

The clinical trial evidence base for the Camperdown Program includes many adolescent participants (see Page 2). There are few modifications necessary for this age group. Different versions of the Training model, demonstrated by adolescents, can be downloaded from the website of the Australian Stuttering Research Centre. Parents of adolescents will usually be involved in treatment. The extent and nature of parent involvement will depend on a number of factors, including the age and organisation skills of the adolescent, the adolescent-parent relationship, and parent availability.

Activities to elicit or reinforce fluency technique practice are no different from those that clinicians would usually use for adolescent clients in the clinic. These include using resources such as games, books and websites to prompt conversation, using age-appropriate texts for reading practice, and choosing practice activities that are relevant and motivating for the adolescent. Telepractice may be a means of increasing interest, engagement and compliance of adolescent clients because of their familiarity and acceptance of technology. Self-management may not be a realistic goal for some adolescent clients, depending on their age and maturity. However, adolescents need to be included in every part of decision making during treatment, including whether to begin treatment in the first instance.

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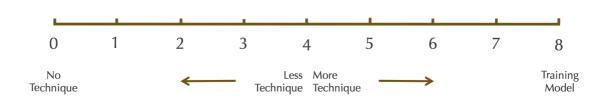
# **APPENDICES**

### **APPENDIX ONE**

The Stuttering Severity Scale



The Fluency Technique Scale



The Subjective Units of Distress Scale (SUDS)



# **APPENDIX TWO**

Situations Measurement Chart

# Camperdown Program Situations Measurement Chart

ADD	SITUATIONS TO I	REPRESENT YOU	JR EVERYDAY LI	IFE	
SITUATIONS	TYPICAL STUTTERING SEVERITY 0-8	HIGHEST STUTTERING SEVERITY 0-8	FLUENCY TECHNIQUE 0-8	ANXIETY (SUDS) 0-10	AVOIDANCE Rarely Sometimes Usually
Family					
Friends					
Social situations					
Boss or authority figure					
Clients at work					
Phone calls at work					
Formal presentations					
Ordering food or drink					

# **APPENDIX THREE**

Daily Measurement Chart

# Camperdown Program Daily Measurement Chart

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# **APPENDIX FOUR**

Text of adult Camperdown Training Model:

The largest snake in the world is the anaconda. Anacondas belong to the boa constrictor family and are found in the Amazon Jungle. They usually live near rivers or lakes as they like to lie in muddy waters. They are not aggressive and will usually disappear into the water when confronted.

Text of adolescent Camperdown Training Model:

The scores were even with only minutes left 'till half time. Anticipation and frustration were building. With only seconds left, a fast move surprised the opposition and a goal was scored. A sea of black and white supporters roared as the siren sounded. The game paused for refreshments and entertainment.

# APPENDIX FIVE

# Fluency Cycles Chart

Camperdown Program Fluency Cycles Chart

PLANNING	My plan for the next cycle Stuttering severity 2+		e Plan for Next Cycle															
	RECORDING	Scores I think I achieved AFTER listening to the recording	Fluency Technique															
	RECC	Scores I th AFTER to the	Stuttering Severity															
EXPERIMENTATION	LIVE EVALUATION	Scores I think I achieved BEFORE listening to the recording	Fluency Technique															
EXPERIM	LI EVALU	Scores I thin BEFORE to the re	Stuttering Severity															
	COAL	aim to e next	Fluency Technique															
	05	Scores I aim to achieve next	Stuttering Severity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TICE	EVALUATION	Scores I gave myself while speaking like the Training Model	Fluency Technique															
IIQUE PRAC	EVALU	Scores I gave myse while speaking like Training Model	Stuttering Severity															
FLUENCY TECHNIQUE PRACTICE	AL	hieve while like the Model	Fluency Technique	7–8	7–8	7–8	7–8	2-8	7–8	7–8	2-8	7–8	7–8	2–8	7–8	7–8	7–8	2-8
FLUE	COAL	Scores to achieve while speaking like the Training Model	Stuttering Severity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Cycle	-	2	3	4	5	9	7	8	6	10	11	12	13	14	15
			Date															

#### **APPENDIX SIX**

Fluency cycles instructions

# What are fluency cycles?

These are cycles during which you have massed practice using your new fluency technique and evaluating your speech. There are three parts in a Fluency Cycle. Part 1 is Fluency Technique Practice, Part 2 is Experimentation and Part 3 is Planning. On the Fluency Cycles Chart you will see the parts named at the top of each column.

# Why do I do them?

With the Fluency Cycles, you will train yourself to reduce your stuttering to a very low level while sounding as natural as possible. You will learn to accurately evaluate the severity of your stuttering and your fluency technique

# For how long?

Try to practise each day. It is not useful to practise the cycles for less than about 30 minutes at a time.

#### Who with?

It is best to practise with someone with whom you feel very comfortable, such as a family member or good friend. Talking on your own generally is not useful speech practice.

# How do they work?

During the Fluency Technique Practice speak for 3–4 minutes. Your fluency technique should be around 7–8. You may speak together with one of the models, read from a book, or speak on a topic of your choice, but try to copy the Training Model as closely as possible. Do not attempt to sound more natural. The aim is to consolidate an effective fluency technique and in doing so reduce your stuttering severity score to 0–1. Write on your Fluency Cycles Chart the stuttering severity and fluency technique scores you achieve.

Now you move to the Experimentation part. Use the form to set a goal for the stuttering severity and fluency technique scores you will be attempting, keeping in mind that while you may experiment with how much technique you use, the primary aim is keep the stuttering severity score at 0–1.

Speak for 3–4 minutes, recording your speech on your phone or a tablet, using whatever features of the fluency technique you feel necessary in order to maintain a stuttering severity score of 0–1. It is a good idea to write down some topics in advance, so that you can easily think of things to say. At the completion of 3–4 minutes use the Fluency Cycles Chart to record a stuttering severity score and a fluency technique score that you believe represent your speech before listening to the recording. Then listen back to the recording to confirm or change your scores.

During the Planning part, use your evaluations from the previous Fluency Cycle to plan a strategy and set stuttering severity and fluency technique goals for the next cycle. In planning the goals for the next cycle, determine the fluency technique goal by reviewing your evaluations of previous cycles to see what did or didn't work. There are no incorrect goals; just make sure you have a good reason for the goals you choose. You should also decide whether to read, speak in monologue, speak with another person, or even debate with another person, again with an appropriate reason.

Keep in mind that your ultimate goal is to speak at stuttering severity 0–1 and fluency technique level 1–2, unless you and your clinician have decided otherwise.

#### **APPENDIX SEVEN**

Problem Solving Suggestions for Clinicians

# Fluency Technique

- (1) Does the client easily and consistently produce natural-sounding stutter-free speech with the clinician? If not
  - a. Can the client produce a close approximation of the model?
  - b. Can the client do this consistently?
  - c. Does the client's fluency technique produce stutter-free speech?
  - d. Can the client produce stutter-free speech in conversation at a range of fluency technique scores in the clinic; for example 7–8, 4–5; 1–2?
  - e. Can the client vary the fluency technique on request and in response to self-evaluation?
- (2) Does the client feel totally in control of stuttering when using fluency technique?
- (3) Can the client accurately score fluency technique with the Fluency Technique Scale from recordings and after speaking?

# Fluency Technique practice routine

- (1) Does the client have a suitable fluency technique practice routine?
- (2) Does the client have a suitable fluency technique practice level or levels?
- (3) Is the client setting appropriate practice goals?
- (4) Does the client give sufficient time to speech practice?
- (5) Is the client practising his fluency technique regularly?
- (6) Has practice been incorporated into daily routine?
- (7) Does the client remember to practise fluency technique?
- (8) Is the client motivated to practise fluency technique?
- (9) Are practice demands realistic for this client?
- (10) Is the client practising the fluency technique with all three practice types?
- (11) Is the time, place and speaking situation being varied for practice?
- (12) Is the practice task being varied, such as during reading, speaking alone, or with others?
- (13) Does the client have a support person with whom to practice?
- (14) Has the client identified people for practice in various situations?
- (15) Does the client practise for long enough?

# Evaluation of speech practice

- (1) Is the client aware of and watching for unhelpful changes of fluency technique?
- (2) Is the client recording his speech practice?
- (3) Is the client able to consistently and reliably identify stuttering moments?
- (4) Is the client able to accurately use the Stuttering Severity Scale and the Fluency Technique Scale to self-evaluate during and after practice?
- (5) Is the client varying fluency technique in response to stuttering severity?
- (6) Is the client changing fluency practice routine in response to self-evaluation?

#### Speech Measures

- (1) Is the client collecting scores for stuttering severity and fluency technique, and anxiety (SUDS) and avoidance scores if needed?
- (2) Does the client understand the reason for collecting beyond-clinic measures?
- (3) Are the above scores representative of the client's daily life?
- (4) Have self-report scores been verified by recordings?
- (5) Is the amount, type and method of beyond-clinic measurement appropriate for the client?

# **Problem solving**

- (1) Is the client able to interpret speech scores and plan strategies accordingly?
- (2) Is the client able to give sufficient time to planning and doing treatment activities?
- (3) Does the client understand the concepts underlying the Camperdown Program or only the procedures?

- (4) Has the client established a situation / task hierarchy?
- (5) Is the client practising stutter-free speech as outlined on Page 14 with basic skill practice, practice in controlled situations, and practice in everyday situations?
- (6) Does the client have a comfortable fluency technique for use during everyday talking?
- (7) Is the client comfortable using a speech technique in all situations?
- (8) Has the client set realistic goals for stuttering severity and fluency technique for specific situations?
- (9) Is the client documenting progress toward stuttering severity and fluency technique goals?
- (10) Has the client decided about treatment goals in terms of stuttering severity, fluency technique, and anxiety reduction?
- (11) Is the client reporting speech-related anxiety in some situations?
- (12) Does the client need to be referred to a clinical psychologist for anxiety management?
- (13) Is the client having difficulty with certain speaking situations that are linguistically and cognitively challenging?
- (14) Have any situations in item 13 been targeted for practice?
- (15) Is the client remembering to use fluency technique during everyday talking?
- (16) Does the client use reminders to prompt using fluency technique in everyday talking?
- (17) Is the client having difficulty maintaining fluency technique during everyday talking?
- (18) Are there recurring aspects of any speaking environments, such as background noise, that make it particularly difficult to use fluency technique?
- (19) Have any situations in item 18 been targeted for practice?

#### Maintenance issues

- (1) Is the client continuing with practice and self-evaluation routines?
- (2) Does the client have a plan for dealing with any signs of relapse?
- (3) Has the client responded promptly to any signs of relapse?
- (4) Does client have realistic expectations of long-term treatment benefits?
- (5) Is client aware of resources such as local self-help groups?

#### REFERENCES

- <sup>1</sup> Onslow, M., & Menzies, R. (2010). *Speech restructuring therapy*. Accepted entry in http://www.commonlanguagepsychotherapy.org/index.php?id=76
- <sup>2</sup> Menzies, R., Onslow, M., Packman, A., & O'Brian, S. (2009). Cognitive behavior therapy for adults who stutter: A tutorial for speech-language pathologists. *Journal of Fluency Disorders*, *34*, 187–200.
- <sup>3</sup> Helgadottir, F. D., Menzies, R., Onslow, M. Packman, A., & O'Brian, S. (2014). A standalone Internet cognitive behavior therapy treatment for social anxiety in adults who stutter: CBTpsych. *Journal of Fluency Disorders*, 41, 47–54.
- <sup>4</sup> Australian Stuttering Research Centre. (2018). *ASRC Downloads*. Retrieved from http://sydney.edu.au/health-sciences/asrc/downloads/index.shtml
- <sup>5</sup> Packman, A., Onslow, M., & van Doorn, J. (1994). Prolonged speech and modification of stuttering: Perceptual, acoustic, and electroglottographic data. *Journal of Speech and Hearing Research*, *37*, 724–737.
- <sup>6</sup> Onslow, M., & O'Brian, S. (1998). Reliability of clinicians' judgments about prolonged-speech targets. *Journal of Speech, Language, and Hearing Research, 41,* 969–975.
- <sup>7</sup> Harrison, E., Onslow, M., Andrews, C., Packman, A., & Webber, M. (1998). Control of stuttering with prolonged speech: Development of a one-day instatement program. In A. Cordes & R. J. Ingham (Eds.), *Treatment efficacy in stuttering: A search for empirical bases* (p. 191–212). San Diego, CA: Singular Publishing Group.
- <sup>8</sup> O'Brian, S., Cream, A., Onslow, M., & Packman, A. (2001). A replicable, nonprogrammed, instrument-free method for the control of stuttering with prolonged-speech. *Asia Pacific Journal of Speech, Language, and Hearing*, *6*, 91–96.
- <sup>9</sup> O'Brian, S., Onslow, M., Cream, A., & Packman, A. (2003). The Camperdown Program: Outcomes of a new prolonged-speech treatment model. *Journal of Speech, Language, and Hearing Research, 46*, 933–946.
- <sup>10</sup> Cocomazzo, N., Block, S., Carey, B., O'Brian, S., Onslow, M. Packman, A., & Iverarch, L. (2012). Camperdown Program for adults who stutter: A student training clinic Phase I trial. *International Journal of Language and Communication Disorders*, 47, 365–372.
- <sup>11</sup> O'Brian, S., Packman, A., & Onslow, M. (2008). Telehealth delivery of the Camperdown Program for adults who stutter: A Phase I trial. *Journal of Speech, Language and Hearing Research, 51,* 184–195.
- <sup>12</sup> Carey, B., O'Brian, S., Onslow, M., Packman, A., & Menzies, R. (2012). Webcam delivery of the Camperdown Program for adolescents who stutter: A Phase I trial. *Language, Speech, and Hearing Services in Schools, 43,* 370–380.
- <sup>13</sup> Carey, B., O'Brian, S., Lowe, R., & Onslow, M. (2014). Webcam delivery of the Camperdown Program for adolescents who stutter: A Phase II trial. *Language*, *Speech*, and *Services in Schools*, 45, 314–324.
- <sup>14</sup> Carey, B., O'Brian, S., Onslow, M., Block, S., Jones, M., & Packman, A. (2010). Randomized controlled non-inferiority trial of a telehealth treatment for chronic stuttering: The Camperdown Program. *International Journal of Language and Communication Disorders*, 45, 108–120.
- <sup>15</sup> Erickson, S., Block, S., Menzies, R., Onslow, M., O'Brian, S., & Packman, A. (2012). Stand-alone Internet speech restructuring treatment for adults who stutter: A pilot study. *Journal of Clinical Practice in Speech-Language Pathology*, *14*, 118–123.
- <sup>16</sup> Erickson, S., Block, S., Menzies, R., O'Brian, S., Packman, A., & Onslow, M. (2016). Standalone Internet Speech Restructuring Treatment for Adults who Stutter: A Phase I Study. *International Journal of Speech-Language Pathology*, 18, 329–340
- <sup>17</sup> Hearne, A., Packman, A., Onslow, M., & O'Brian, S. (2008). Developing treatment for adolescents who stutter: A Phase I trial of the Camperdown Program. *Language, Speech, and Hearing Services in Schools, 39,* 487–497.
- <sup>18</sup> Iverach, L., Jones, M., O'Brian, S., Block, S., Lincoln, M., Harrison, E., ... Onslow, M. (2009). The relationship between mental health disorders and treatment outcome among adults who stutter. *Journal of Fluency Disorders*, *34*, 29–43.
- <sup>19</sup> Tanner, B. A., (2012). Validity of global physical and emotional SUDS. *Applied Psychophysiological Biofeedback*, *37*, 31–34.
- <sup>20</sup> Scenari-Aid: Simulated Scenario System (2015). *Home page*. Retrieved from <a href="http://www.scenariaid.com">http://www.scenariaid.com</a> Erickson, S., Block, S., Menzies, R., O'Brian, S., Packman, A., & Onslow, M. (2016). Standalone Internet speech restructuring treatment for adults who stutter: A phase I study. *International Journal of Speech-Language Pathology*, 18(4), 329–340.

<sup>21</sup> Menzies, R. G., Onslow, M., Packman, A & O'Brian, S. (2009)Cognitive behaviour therapy for adults who stutter: A tutorial for speech-language pathologists. *Journal of fluency Disorders*, *34*, *187-200*.