# *The Camperdown Program for Stuttering: Treatment Manual*

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## *Contents*

# PART ONE:
# CAMPERDOWN PROGRAM OVERVIEW

## Background

The Camperdown Program is a speech restructuring treatment developed for adults who stutter. The term speech restructuring refers to any treatment that requires the client to learn a novel speech pattern that is incompatible with stuttering. The primary aim of the program is to eliminate or significantly reduce stuttering in everyday speech situations. A secondary aim is to assist clients to develop self-managed procedures so that they may be able to address any increase in stuttering as time progresses. The program does not recommend specific techniques or strategies to address social anxiety associated with stuttering. However, there is flexibility during the problem-solving sessions to incorporate such procedures when required.

The program can be implemented in (1) an intensive format during one week or in weekly clinic visits, (2) in a group format or one-on-one with the clinician, and (3) in telehealth format with webcam or telephone. It can also be adapted for adolescents as young as 13 years. However, there is no evidence of its efficacy with children younger than this, and it is not recommended for such a population. The treatment technique used is Prolonged-Speech, which is taught without reference to traditional descriptions of speech targets such as “gentle onsets” and “soft contacts.” Instatement of stutter-free speech involves no programmed instruction, no speech rate targets, and no speech naturalness targets. Instead, clients are encouraged to use whatever features of the Prolonged-Speech pattern they require to control their stuttering, and are free to individualise their speech pattern.

## Program Stages

The program consists of four stages:

### *Stage I: Teaching Treatment Components*

Here clients learn the skills needed to undertake the program.

### *Stage II: Instatement*

This occurs within the treatment environment where clients develop consistent control of their stuttering, refine self-evaluation skills and develop problem-solving strategies. The goal is to attain natural-sounding stutter-free speech

### *Stage III: Generalisation*

Clients develop strategies for controlling their stuttering in everyday speaking situations.

### *Stage IV: Maintenance*

Here clients develop problem-solving skills to prevent relapse.

## Camperdown Program Research

The program has been developed by researchers at the Australian Stuttering Research Centre. The fundamental principle of the Camperdown Program—no programmed instruction—emerged from a report by Packman et al. (1994). The omission of a formal generalisation or “transfer” phase was shown to be viable by Harrison et al. (1998). O’Brian et al. (2000) describe

the development of the treatment, and O'Brian et al. (2001; 2003) reported the first clinical trials with adults, followed by a clinical trial with adolescents (Hearne et al. 2008). O'Brian et al. (2008) published the first telehealth trial of the Camperdown Program, and Carey et al. (2008) reported a randomised controlled trial showing that telehealth delivery produces similar outcomes to the face-to-face delivery and is marginally more efficient. The treatment is overviewed and case studies presented in O'Brian et al. (2009). Research about webcam and standalone Internet delivery of the program is currently in progress, and when published will appear in subsequent versions of this manual.

# PART TWO:
# ESSENTIAL PROGRAM COMPONENTS

## Acquisition of the Prolonged-Speech pattern

Prolonged-Speech replaces stuttering with a speech pattern that is incompatible with stuttering. When teaching this speech pattern, no attempt is made to standardise descriptive features of the pattern: for example soft or hard contact sounds, gentle beginnings to words, or the prolongation of vowel sounds. Evidence suggests that adults who stutter may benefit from using different features of Prolonged-Speech (Packman, Onslow & van Doorn, 1984). During the Camperdown Program, clients watch or listen to a video or audio of an adult demonstrating Prolonged-Speech in a slow and exaggerated manner in monologue. Then they attempt to reproduce that speech pattern as closely as possible both in unison with the recording and immediately after listening to it. This video can be downloaded from the website of the Australian Stuttering Research Centre (http://sydney.edu.au/health_sciences/asrc/health_professionals/asrc_download.shtml). The text for the video is in Appendix A.

## Clinical Speech Measures

### *Stuttering Severity Scale*

Clinicians and clients use a 9-point scale within and beyond the clinic to replace the customary instrumentation for stutter-count measures (Eve et al., 1995; Onslow, 2003; Onslow et al., 1990. Clients are taught to use the scale (*1 = no stuttering, 2 = extremely mild stuttering, 9 = extremely severe stuttering*) from the first clinic visit. This scale, and the Speech Naturalness Scale (see below) can be downloaded from the website of the Australian Stuttering Research Centre (http://sydney.edu.au/health_sciences/asrc/health_professionals/asrc_download.shtml).

Agreement between client and clinician ratings is established during the first few sessions. Ratings from within- and beyond-clinic speech samples are compared and discussed each week during the *Teaching Treatment Components* stage until reasonable agreement occurs between the client and clinician scores. “Reasonable agreement” is when the client and clinician scores differ by no more than one scale value. Clients also use the scale during this stage to document typical daily stuttering severity ratings and to record pre-treatment stuttering levels in representative beyond clinic speaking situations. These ratings can be compared with post-treatment ratings of similar situations.

The scale is used during the *Instatement* stage to evaluate stuttering severity in tasks that occur in cycles of three phases. If the client attains a stuttering severity of 2 or less, the next phase involves experimenting with the use of the Prolonged-Speech pattern to control stuttering. If the client attains a rating greater than 2, the next phase involves more practice with the Prolonged-Speech pattern. In this sense, the rating scale is used to maintain a performance-contingent routine. The Stuttering Severity Scale is used also to evaluate stuttering severity beyond the clinic during the *Generalisation* stage. It can provide different ratings for different purposes. Examples are for a particular situation, a typical daily rating, best or worst for a given period, or for rating practice conversations. Clients are able to use the scale to report their speech outcome for many speaking situations which would otherwise not easily be amenable to reliable measurement. Clients can report severity ratings in various ways, such as typical for the day, worst for the week, or best for the week. This feedback to the clinician is used to foster discussion between clinician and client about establishment and modification of appropriate generalisation strategies. Finally, the scale is used to evaluate stuttering severity in relation to program criteria for the *Maintenance* Stage.

### *Speech Naturalness Scale*

The Camperdown Program involves the use of a novel speech pattern, therefore a 9-point Speech Naturalness Scale (Martin et al., 1984) is used by clinicians and clients to evaluate and document the client's speech quality throughout the program (another example of clinical use of the scale is Onslow et al., 1996). With this scale, *1 = extremely natural sounding speech* and *9 = extremely unnatural sounding speech*.[1] The ultimate aim is for the client to achieve a speech naturalness score of 3 or lower, because this range has been shown (Ingham et al., 1985; Martin et al., 1984; Runyan et al., 1990) to be generally within the range for normal speakers.

The scale is best introduced during the *Teaching Treatment Components* stage, so that clients can practise comparing their scores with those of the clinician before using it to report on their beyond clinic speech. The clients can begin by reporting the amount of stuttering using the 9-point Stuttering Severity Scale and evaluating the sound of their speech qualitatively for "amount of pattern" and "acceptability of the sound of the pattern". This can later be translated into values on the 9-point Speech Naturalness Scale when the clients become familiar with the task.

The scale is used during the *Generalisation* stage to report the amount of Prolonged-Speech being used, and hence speech quality produced, in beyond clinic speaking situations. Strategies are then discussed to address the balance between speech quality and stuttering severity. If stuttering severity remains low, then clients are always encouraged to increase their speech naturalness (less Prolonged-Speech pattern). On the other hand, if a reported increase in stuttering severity seems related to low speech naturalness (less Prolonged-Speech pattern), clients are encouraged to experiment with the amount or type of pattern being used. In these sessions, the Speech Naturalness Scale is used to establish different "speech practice patterns" as a strategy to assist generalisation. For example, clients may decide to practice speech at speech naturalness of 4, or even 5, before attempting a particularly difficult phone call.

The Speech Naturalness Scale has been shown to be reliable for clinicians giving feedback to clients about their speech and also for clients' self-evaluation of speech quality (Ingham et al., 1989). However, it is the experience of clinicians involved in this program that most clients rate their speech more according to how natural it "feels" than how natural it "sounds." Hence on-line client ratings are nearly always reported with higher numbers— more unnatural—than the clinician's ratings, although client off-line ratings are often comparable. This problem is best addressed by having clients regularly listen to and evaluate tape recordings of their speech for speech quality.

## *Audio Tape Recording*

Audio tape recording of speech within and beyond the clinic is used routinely to help clients improve self-evaluation skills.

## *Self-Evaluation*

Self-evaluation refers to the monitoring and evaluation of various aspects of client speech according to certain criteria. This procedure has been researched and recommended as a useful technique during stuttering treatment (Harrison et al., 1998; Onslow et al., 1996). Self-evaluation of stuttering severity and how natural speech sounds are techniques emphasised from the beginning of therapy. Clients use the Stuttering Severity Scale and the Speech Naturalness

[1] The scale was developed by researchers as *1 = highly natural-sounding speech* and *9 = highly unnatural-sounding speech*. However, the wording has been adapted for use in the present context.

Scale at the time of talking and subsequently from recordings, to critically evaluate, report, and modify both aspects of their speech regularly in many situations beyond the clinic environment. The two scales are used to guide problem-solving techniques throughout the *Generalisation* stage. Arguably, self-evaluation techniques are the most important strategies for equipping the client to be responsible for maintenance of speech gains following therapy.

### *Maintenance*

The *Maintenance* stage is designed to maintain the low level of stuttering that is achieved during the *Generalisation* stage. The client attends the clinic less frequently provided that stuttering remains at a low level.

## *PART THREE:*
## *CAMPERDOWN PROGRAM PROCEDURES*

This following is written for the adult who attends weekly visits. Subsequent sections deal with adaptations for different service delivery models and populations.

### *Stage I: Teaching Treatment Components*

During these sessions clients:

- Learn to produce Prolonged-Speech at speech naturalness 7-9 during spontaneous speech to completely control stuttering.
- Learn to use the 9-point Stuttering Severity Scale.
- Learn to use the 9-point Speech Naturalness Scale.
- This learning may occur during several weekly sessions.

#### *Teaching the Stuttering Severity Scale*

*Aims*

- Reliable use of scale by client to within one scale score of clinician.
- Documentation of client pre-treatment beyond clinic stuttering severity.

*Method*

- Clinician explains reason for and use of the scale to measure stuttering.
- Clinician presents and describes the 9-point scale.
  *1 = no stuttering, 2 = extremely mild stuttering, 9 = extremely severe stuttering*
- Clinician elicits and records short conversation between clinician and client.
- Client assigns severity score to this sample, according to above scale.
- Clinician and client compare scores and discuss rating.
- Client identifies five speaking situations representative of everyday life. Examples may include talking with family, social situations, situations at work, on the phone, giving a university tutorial, and ordering food.
- Client documents typical severity in each situation pre-treatment for later problem-solving and for post-treatment comparison.
- Clinician and client listen to beyond-clinic recordings of client's speech and discuss scores.
- Clinician documents and discusses client's typical beyond-clinic severity.

Suggested Home Assignments:

- Client records several 1-2 minute conversations in everyday situations, without using Prolonged-Speech, and assigns a severity score to each. These recordings and scores are discussed at the next visit.
- Client uses the Stuttering Severity Scale to document typical daily severity until the next visit.
- Client documents typical severity in five identified everyday speaking situations until the next visit.

### *Teaching Prolonged-Speech Technique*

*Aims*

- Client learns to use Prolonged-Speech at speech naturalness 7-9 to consistently control stuttering at stuttering severity 1 (no stuttering) in the treatment environment.

*Method*

- Clinician gives explanation of technique.
- Client watches and/or listens to the recording of Prolonged-Speech demonstrated in a slow and exaggerated manner. This is accompanied by written text. Client attempts to produce a similar pattern by imitation or reading in unison. The video can be downloaded from the website of the Australian Stuttering Research Centre.[2] See Appendix A for the video text.
- Clinician gives feedback about the accuracy of the client's imitation of Prolonged-Speech without reference to specific targets, such as "soft contacts," "gentle onsets," and "continuous vocalisation." Feedback directs client back to the demonstration video to try to imitate the exemplar more closely. Clinician breaks the passage into smaller units for imitation and feedback if necessary.
- Client given copy of exemplar to take home.
- Bulk of initial practice done at home.
- When client is able to imitate the Prolonged-Speech exemplar at speech naturalness 7-9 to control stuttering completely, client progresses to using Prolonged-Speech while reading, then in spontaneous monologue, and finally in spontaneous conversation for the duration of session, all at speech naturalness 7-9.
- It is useful to audio-record each stage so that both clinician and client can listen to and evaluate progress.
- Clinician discusses where and how to practice the Prolonged-Speech technique.
- Ideally client will establish practice partner for future daily speech practice.

*Suggested Home Assignments*

- Client is given an audio/video copy of the video.
- Client listens to/watches the video daily.
- Client practises reading the passage with and without the video, attempting to match the training tape as closely as possible.
- Client records at least five readings of the passage over several days attempting to match the training tape as closely as possible.
- Client evaluates accuracy of video imitation.
- Client uses Prolonged-Speech at speech naturalness 7-9 to talk for five minutes with practice partner.

### *Teaching the Speech Naturalness Scale*

*Aims*

- Reliable use of scale by client to within one scale value of clinician score.

[2] http://sydney.edu.au/health_sciences/asrc/health_professionals/asrc_download.shtml

*Method*

- Clinician explains purpose of scale to achieve natural-sounding, stutter-free speech.
- Clinician presents and describes the 9-point Speech Naturalness Scale (*1 = extremely natural sounding speech, 9 = extremely unnatural sounding speech).*
- Clinician demonstrates different naturalness levels.
- Client assigns naturalness ratings to different clinician examples.
- Clinician explains the procedure for the *Practice* and *Trial* phases of the *Instatement* stage sessions.
- Clinician facilitates production of stutter-free Prolonged-Speech at various naturalness levels using the following instruction:

  > "I want you to experiment now with the Prolonged-Speech pattern that you have learned. Use whatever features of the pattern you need to remain in control of your stuttering. While remaining stutter-free, see if you can make your speech sound more natural."

- Client and clinician evaluate stuttering severity and acceptability of speech pattern.
- The client practices a Prolonged-Speech pattern, with reference to the video, with a practice partner until beginning the *Instatement* stage.

*Criteria For Beginning Instatement Stage*

The client is able to:

- Use a Prolonged-Speech pattern that approximates the video example to control stuttering, with stuttering severity 1, speech naturalness 7-9, for *at least* 20 minutes while conversing with clinician.
- Demonstrate reliable use of the Stuttering Severity Scale.
- Demonstrate varying speech naturalness scores while using Prolonged-Speech to be stutter-free.

## *Stage II: Instatement*

*Aims*

During these sessions clients:

- Establish natural-sounding stutter-free speech within the treatment environment.
- Practise self-evaluation skills for stuttering severity and speech naturalness.
- Develop problem-solving skills to assist later generalisation of stutter-free speech.

*Method*

This stage can be implemented entirely in the clinic environment, either in an intensive format or during weekly clinic visits. It can also be implemented remotely with telephone

or webcam with no clinic attendance, or using a combination of the two formats. Regardless of the format, the guiding principles remain the same and the client can be encouraged to complete as much of the program at home, between sessions, as possible.

During this stage, clients aim to achieve natural-sounding, stutter-free speech by rotating through a series of speech cycles. Each cycle consists of three 5-minute phases. (See Appendix B for client instructions.) There are two speaking phases, named *Practice Phase* and *Trial Phase*, and one *Evaluation Phase.* Clients complete as many of these cycles as needed to achieve program criteria (see below).

The *Practice Phase* consists of around five minutes of monologue or conversation using exaggerated stutter-free Prolonged-Speech similar to the video exemplar (speech naturalness 7-9), with or without the exemplar tape as a model as appropriate. Feedback by the clinician is given in the same manner as when teaching the pattern in *Teaching of Treatment Components*. No attempt should be made to experiment with more natural sounding speech. The aim is to reinforce the Prolonged-Speech technique for control of stuttering. Clients audio-record Practice Phases and evaluate their speech naturalness and stuttering severity from the recording using the appropriate scales.

The *Trial Phase* consists of around five minutes of speaking in monologue, subsequently in conversation. These are also audio-recorded by the client. The client is instructed to use whatever features of the Prolonged-Speech are needed to control stuttering. During this phase, the client is instructed to attempt to achieve three goals in the following order of priority:

- Maintain a stuttering severity of 1-2.
- Sound as natural as possible, with the client setting a goal for each trial.
- Achieve self-rated speech naturalness and stuttering severity scores within one scale value of the clinician's scores.

At the end of each *Trial Phase*, the client self records a speech naturalness and stuttering severity score for the trial and compares this with the trial goal. The clinician may also record a score.

The *Evaluation Phase* is an opportunity for the client to listen to the recordings of the previous two speaking phases, and:

- Re-evaluate stuttering severity and speech naturalness scores from the recordings, particularly if there was disparity between client and clinician scores.
- Consider the acceptability of the speech pattern during the *Trial Phase.*
- Decide on a strategy for using Prolonged-Speech during the next phase.

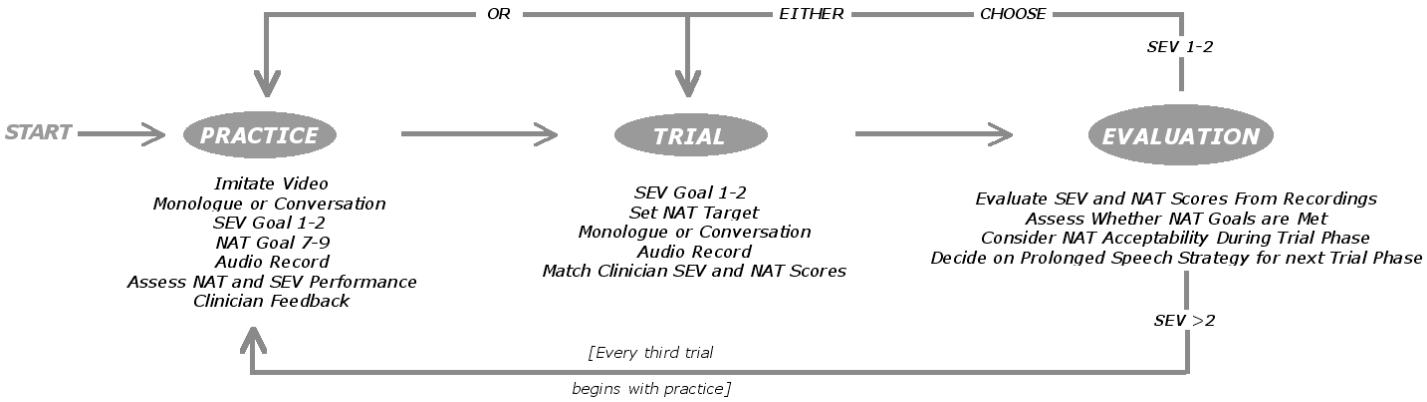
During each *Evaluation Phase*, the clinician and client select either a *Practice Phase* or a *Trial Phase* for next in the cycle. For example, if the stuttering severity score was greater than 2, the client would return to a *Practice Phase*, and then either change the features of the Prolonged-Speech technique used or introduce more Prolonged-Speech technique generally. If stuttering severity was 1-2 and speech naturalness acceptable, a *Trial Phase* might be selected next. If the speech pattern sounded unacceptably unnatural although stutter-free, the client might gradually reduce the amount of technique during the next trial. The purpose of the ratings is for the clinician and client to evaluate progress towards the goal of stutter-free, natural sounding, speech and to guide the client accordingly. This establishes a procedure that will be encouraged as a technique during the *Generalisation* stage (see below).

If the treatment is conducted in a group format, a 20-minute group conversation may replace the individual *Trial Phase* monologue with the clinician. Clients are encouraged to engage in conversation in the group rather than continuing to monologue. The three goals for the group sessions remain identical to those of the individual *Trial Phase*. In the *Evaluation Phase* the clients evaluate and discuss with the clinician their speech during the last group session and plan a strategy for the next cycle.

The program contains no stepwise, hierarchical progression, however the following guidelines apply to the speaking phases. The entire process is overviewed in Figure 1.

- The *Practice Phase* is always followed by a *Trial Phase*
- A *Trial Phase* with a stuttering severity score of 1 or 2 leads to a choice of a subsequent *Practice Phase* or *Trial Phase*
- A *Trial Phase* with a stuttering severity score greater than 2 is always followed by a *Practice Phase*
- Every third cycle begins with a *Practice Phase* regardless of previous outcomes
- After six cycles, if the client is consistently producing speech naturalness scores of 6 or more—consistently using an exaggerated speech pattern—the clinician encourages attainment of more natural sounding speech.

FIGURE 1: The Three Speech Cycles of the Camperdown Program. SEV = Stuttering Severity Score and NAT = Speech Naturalness Score.




### *Suggested Home Assignments*

- Client practises cycles according to the written instructions (see Appendix B) and using the Speech Cycles Chart[3] to document results.
- Client records typical daily stuttering severity and speech naturalness scores until next visit using the Between Sessions chart.[1]
- Clients are encouraged to practise Prolonged-Speech for around 10 minutes each day: five minutes practise with the video and five minutes with a practice partner. Clients are also encouraged to try to use Prolonged-Speech, at an acceptable naturalness level, in as many situations as they can between sessions

[3] Downloadable from http://sydney.edu.au/health_sciences/asrc/health_professionals/asrc_download.shtml

*Criteria for Entry to Generalisation Stage*

Clients must be able to produce conversational speech with the clinician for the entire session at stuttering severity 1-2 and speech naturalness at, ideally, 2 or three 3, but if not, at a score that is acceptable to the client.

## *Stage III: Generalisation*

*Aims*

During Generalisation sessions clients:

- Establish appropriate practice regimes.
- Transfer Prolonged-Speech technique into everyday conversations.
- Evaluate stuttering severity and acceptability of speech naturalness in everyday situations.
- Develop strategies to assist generalisation of stutter-free based on daily stuttering severity and speech naturalness scores.

*Method*

Stepwise, hierarchical generalisation strategies are not used. At each session:

- Client demonstrates continued capacity to use Prolonged-Speech to control stuttering during a 5-minute clinic conversation.
- Client evaluates speech and assigns stuttering severity and speech naturalness scores.
- If stuttering severity is greater than 2, client practises the Prolonged-Speech pattern at a less natural level and gradually increases naturalness without increasing stuttering severity.
- It is important for the client to remain stutter-free throughout every session, varying speech naturalness to do so if necessary.
- Clinician and client together develop an individualised Prolonged-Speech practice schedule.
- Clinician and client target speaking situations for using Prolonged-Speech to control stuttering and evaluating results.
- Clinician and client discuss the stuttering severity and speech naturalness scores collected during everyday speaking situations during the week.
- Clinician and client listen to recordings of everyday speaking situations made during the week.
- Clinician and client summarise and plan assignments for the following week.

The remainder of the session is used by the clinician to review progress, identify and solve problems with the generalisation and maintenance of stutter-free speech in specific situations, and to provide guidance for the client to problem-solve as needed. The focus of these meetings is on client speech evaluation using the stuttering severity and Speech Naturalness Scales, and design of strategies to improve control of stuttered speech.

Simple strategies for assessing and treating social anxiety may be appropriate (See Menzies et al., 2009 for guidance). Referral to a psychologist for treatment of social anxiety may be needed, particularly in cases where social anxiety interferes with treatment outcome the and speech pathologist is not able to deal with it.

*Suggested Home Assignments*

- Client documents typical daily stuttering severity and speech naturalness ratings, using the Between Sessions Chart.[4]
- Client documents stuttering severity and speech naturalness ratings for targeted speech situations each week.
- Client collects recordings of beyond-clinic speech in a variety of situations, and assesses stuttering severity and speech naturalness.

*Criteria for Entry to Maintenance*

In order to move into the Maintenance stage, clients will produce, for three consecutive weeks:

- Stuttering severity 1-2 and speech naturalness 1-3 throughout the treatment session.
- Three beyond-clinic recordings of speech in different everyday situations with stuttering severity 1-2 and speech naturalness 1-3.
- Typical stuttering severity scores of 2 across the week or no significant progress for 4-6 weeks.

## *Stage IV: Maintenance*

*Aim*

During the Maintenance stage, the client learns self-management strategies to problem-solve difficulties without the assistance of the clinician.

*Method*

The client attends one-hour clinic visits that become less frequent according to progress. At each visit the client is required to

- Show capacity to solve problems with maintenance of treatment gains.
- Maintain stutter-free speech with the clinician in the clinic.
- Present three conversations recorded in different situations with stuttering severity and speech naturalness scores.
- Present stuttering severity and speech naturalness scores for representative beyond–clinic speech.
- Meet program criteria on the two above tasks: stuttering severity 1-2, and speech naturalness 1-3.

*Criteria For Discharge*

Client and clinician are satisfied that the client has developed self-management skills to deal with fluctuations in stuttering.

[4] http://sydney.edu.au/health_sciences/asrc/health_professionals/asrc_download.shtml

# PART FOUR:
# ADAPTING THE CAMPERDOWN PROGRAM FOR DIFFERENT AGES AND SERVICE DELIVERY MODELS

## Adaptations for Telehealth Delivery

The telehealth model retains the same concepts as the face-to-face program except that it is delivered remotely. It was developed (Carey et al., 2009; O'Brian et al., 2008) to increase access to the program for those living at a distance from the clinic and to reduce travel time to the clinic during working hours. Access may be from any distance—urban, rural, international—and from any environment, such as home, school or place of employment. The benefits include time and cost saving because the need to travel to a clinic is obviated, and clinic treatment infrastructure is not required. Additionally, the telehealth format facilitates client access to specialist stuttering clinicians. The program can be delivered over the phone or the Internet using webcam technology.

### *Technical Requirements*

The telehealth version can be delivered by telephone or by Internet webcam

- The telephone version requires a telephone recording jack and an audio recorder.
- The phone recording jack connects the phone handset to the recorder and allows for recordings to be made directly over the phone.

If the program is delivered over the Internet, the following software support is recommended at the time of writing:

- *Skype* software for Internet client communication. Downloadable at: www.skype.com/intl/en/download/skype/windows/
- *Pamela* for recording Skype-to Skype interactions. Downloadable at: www.pamela.biz/en/
- *Power Gramo* for replaying Skype-to Skype interactions. Downloadable at: www.powergramo.com/
- Audacity program to enable clients to audio record speech during home practice. Downloadable at: http://audacity.sourceforge.net/

### *Procedural Modifications*

After downloading the software above, the clinician and client have recording facilities available on their computers that can be used in the same way as a tape recorder during a clinic session. *Audacity* is used for recording home practice. The sound files can be emailed to the clinician prior to the next session. Clinical forms[5] can be emailed to the client in advance of the relevant session. *Google docs* (www.google.com/google-d-s/b1.html) is recommended as a means to bypass this procedure.

[5] http://sydney.edu.au/health_sciences/asrc/health_professionals/asrc_download.shtml

## *Adaptations required for delivery to adolescents*

### *Acquisition of the Prolonged-Speech pattern*

Two versions of the demonstration video can be downloaded from the website of the Australian Stuttering Research Centre. The first is for adolescents and the second is for adults. The text for both videos is presented in Appendix A.

### *Procedural Modifications*

Parents of adolescents will usually be involved in treatment. The extent and nature of this role will depend on a number of factors, including the age and organisation skills of the adolescent, the adolescent-parent relationship, and parent availability.

## APPENDIX A: PROLONGED-SPEECH VIDEO TEXT

### Adult

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colours. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon.

### Adolescent

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 B: CLIENT INSTATMENT PHASE INSTRUCTIONS

### Speech Cycles

*What?*

These are cycles during which you have massed practice at using Prolonged-Speech and evaluating your speech for stuttering severity and speech naturalness. There are three phases in a Speech Cycle. Phase 1 is a *Practice* phase (P), Phase 2 is a *Trial* phase (T) and Phase 3 is an *Evaluation* phase (E). Please refer to the Speech Cycles Chart, where you will see the phases named at the top of each column.

*Why?*

With this speech practice, you will train yourself to:

- Reduce your stuttering during practice to a consistent 1-2 while sounding as natural as possible.
- Evaluate accurately the severity of your stuttering and your speech naturalness.

*For how long?*

Practice for several short periods each day or for several longer sessions. It is not useful to practice for less than 20 minutes at a time.

*How?*

Refer to the Speech Cycles Chart

During the *Practic*e *Phase* speak for 3-4 minutes as you did with the demonstration video at Speech Naturalness 7-9. You may read with the exemplar tape again, or speak without it, but in either case try to copy the speech pattern you heard on the tape as closely as possible. Do not attempt to sound more natural. The aim is to reinforce the correct speech technique and in doing so, reduce your stuttering severity Score to 1 or 2. Note on your Speech Cycles Chart the stuttering severity and speech naturalness scores you achieved.

Now you begin the *Trial Phase*. Use the form to set a goal for the stuttering severity and speech naturalness scores you will be attempting, keeping in mind that while you may experiment with naturalness, the primary aim is keep the stuttering severity score at 1-2.

Speak for 3-4 minutes, tape recording your speech, using whatever features of the Prolonged-Speech pattern you feel necessary in order to maintain a stuttering severity score of 1-2. 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 Speech Cycles Chart to assign a stuttering severity score and a speech naturalness score that you believe represents your speech during the *Trial Phase*.

During the *Evaluation Phase*, listen to the recording of your speech during the you have just attempted during the *Trial Phase*, and note what stuttering severity and speech naturalness scores you actually achieved. Refer to the progression rules. Work out what you are aiming to achieve and what strategies you will use in the next cycle.

*Progression rules*

- If the stuttering severity of your speech in the final column is greater than 2, return to a *Practice Phase*, because more practice is needed.
- If the stuttering severity of your speech is 1 or 2, you may choose to either do another *Practice Phase*, or to skip the *Practice Phase* and to move onto another *Trial Phase*.
- When you are able to achieve five consecutive cycles of stuttering severity of 1 or 2 and speech naturalness of 3 or less, try to talk for about 20 minutes with your practice partner without stuttering.
- When you can converse with your clinician or practice partner consistently for at least 20 minutes, with stuttering severity 1 or 2 and speech naturalness of 3 or less, you can move to the *Generalisation Stage*.

## APPENDIX C: REFERENCES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