

Case study: Barbara

Background

Barbara was a 60 year old woman who had suffered a large, left intracerebral haemorrhage following elective surgery to remove a benign brain tumour. The haemorrhagic CVA resulted in a dense right hemiplegia, respiratory compromise requiring tracheostomy, severe dysphagia and severe aphasia with concomitant apraxia of speech. Her recovery in the acute setting was slow and fraught with multiple complications. However, she continued to make slow and steady gains and was accepted into an intensive inpatient rehabilitation program.

Therapy

Intensive speech therapy was provided to address her severe aphasia. Therapy focussed on improving auditory and reading comprehension and facilitating verbal output. In addition, she was set up with a picture/word communication book and her family was involved in intensive carer training and practice to teach them how to best communicate with Barbara. A total communication approach was employed utilising speech attempts, yes/no questioning techniques, pointing and gesture.

Barbara's comprehension improved such that she was able to understand basic instructions and questions presented verbally and in writing. She remained somewhat inconsistent with her "yes/no" responses due to her apraxia. She was able to repeat sounds and short words using a model provided by the clinician and started being able to close automatic sentences from a lead in phrase e.g. "knock on the _____ (door)".

Use of *Motor Speech Matters*

Resources from *Motor Speech Matters* were used to further facilitate both her language and motor speech skills.

The *automatic phrases* section of *Chapter 2 Consonants* was used first. Barbara was taught how to produce a target consonant e.g. "l" with modelling and explanations, then the production of CV and CVC words was facilitated using the *automatic phrases* e.g. "law _____ It's against the law". Repetition was her strength and she started attempting to reproduce not just the target word but the whole sentence. New target consonants were gradually introduced depending on ease of stimulability. At this stage, practise was done in blocked units, that is, consonant by consonant.

Photocopies of the *automatic phrases* of each consonant page were stuck in an exercise book which Barbara took away from each therapy session to practise in the evening with her husband. As she mastered repetition and closure of CVC words, the focus became how to facilitate a more responsive use of the words. The same resource material was used but she was asked questions where a word from the list was the target response. To accommodate for her aphasia only four words from the list were given for her to choose from. For example, from four words of the "l" initial word list [lie, law, low, late] she would be asked "What is the opposite of early?" This technique increased the cognitive load and removed the closure cue, but leaves the written word cue for support.

The CV and CVC words from the *Mixed Words* section at the end of *Chapter 2 Consonants* were then used to provide random practice of words starting with various consonants. Once she had mastered repetition of the words and could use them in sentence closure activities she again progressed to using the words in response to a direct question. For example, given the words “tie, day, knee, low” she would be asked a question such as “Which part of your leg can you bend?” The purpose of this was to move her towards being able to initiate an answer to direct questions in supported conversation (a challenge for her from an aphasia/apraxia point of view).

The resource material in the *Chapter 3 Minimal Pairs* was also used to help establish voluntary control over production of accurate initial consonants. She would repeat the pairs or use a sentence closure cue from the clinician, ensuring the initial consonants were produced correctly e.g. “tent” vs “dent”. Once she had mastered this, a similar approach was again used by asking her choose and attempt to say one of the words from the pair to answer a question, for example, “Which one do you sleep in when you’re camping?”

Chapter 8 Prosody was used to facilitate production of phrase level responses to common questions. The question/answer format in this section provided excellent support for her responsive attempts.

Outcome

At discharge from inpatient therapy Barbara remained moderately aphasic with moderate-severe apraxia of speech. She had become more responsive in conversation and often attempted answers to direct questions. However, her ability to initiate speech was still quite impaired and frustrating for her. Ongoing outpatient therapy was organised to continue to address her communication needs.