Using Ultrasound to Treat Speech Sound Disorders

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Ultrasound visual biofeedback (U-VBF) has been used in intervention to treat¹:
- Residual speech sound errors
- Persistent speech disorders
- Childhood apraxia of speech
- Speech errors from cleft lip and/or palate

Evidence ranges from case studies to RCTs (mostly single case studies)¹,²

U-VBF can be used to treat many targets:

| /ʃ/ | Sibilants /s, ʃ/ | Velars /k, g/ | Vowels |

Interpreting the Ultrasound Image

Mid-sagittal

Midsagittal

Tongue surface

Jaw shadow

Hyoid shadow

Coronal

The ultrasound can be used in assessment to confirm transcriptions, identify unusual speech errors, or identify covert contrasts

Comparing /k/ and /t/

Steps in Ultrasound Intervention³

1. Mapping / familiarisation with the image
2. Show / explain features of the target sound
3. Pre-practice / eliciting a new articulation
4. Practice target in different contexts

References

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