Treatment Project: CH
Visual Action Therapy (VAT)

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INTRODUCTION: Visual Action Therapy (VAT)

- Therapy created for clients with global aphasia and apraxia of limbs and oral structures
- Used to increase functional communication through the use of gestures
- No verbal communication is used during the teaching and intervening
INTRODUCTION: Evidence Base - Treatment

- “The globally aphasic individual may have severe apraxia, which interferes with nonverbal means of expressing such as gesturing and drawing. Such patients, then, show poor ability to communicate through any modality” (Helm-Estabrooks, Fitzpatrick, & Barresi, 1982).

- “Patients with global aphasia retain a rich conceptual system and at least some of the cognitive operations necessary for natural language” (Gardner, Zurif, Berry, & Baker, 1976).
"VAT resulted in significant increases in auditory comprehension and pantomime in eight globally aphasic patients who failed to respond to traditional language approaches" (Helm-Estabrooks, Fitzpatrick, & Barresi, 1982).

"Good candidates for VAT include individuals with unilateral, left-hemisphere strokes, lesions confined to the left cerebral hemisphere, global or near global aphasia with severely restricted expression and comprehension of spoken and written language" (Biber, Helm-Estabrooks, Fitzpatrick, & Wysocki, 1983).
METHODS: Subject Information

Client: CH
Age: 61
Medical Diagnosis: Left Cerebrovascular Accident
Speech-Language Diagnosis: Global Aphasia, Apraxia of Speech
Time of Incident: April 2013
Previous Treatment: Mercy Medical (Janesville) and Lakeland Medical Center
METHODS: Subject Current Level of Functioning

- Often uses gestures to communicate but they are difficult for other people to understand.

- Speech production is still limited to single words and short phrases targeted in therapy (e.g., “I’m tired.”)
Rationale for using VAT with CH

Candidacy for Visual Action Therapy:

● Etiology: unilateral, left-hemisphere stroke
● Lesion(s): confined to left cerebral hemisphere but may include or undercut most of the primary language zones.
● Aphasia type: global or near global aphasia with severely restricted expression and comprehension of spoken and written language.
METHODS: Procedure

Level 1:
1) Matching picture and objects
   a) Place objects on pictures
   b) Place pictures on objects
   c) Point to objects
   d) Point to pictures
2) Object use training
3) Action picture demonstration
4) Follow action picture commands
5) Pantomimed gesture demonstration
6) Pantomimed gesture recognition
7) Pantomimed gesture production
8) Representation of hidden objects
9) Production of gesture for hidden object

Level 2:
- Repeat steps 5 - 9
- No real objects are used
- Action pictures are substituted for objects (used in level 1)
- Only steps 6, 7, & 9 are scorable

Level 3:
- Repeat steps 5 - 9
- No real objects or action pictures are used
- Pictures of objects are substituted for action pictures (used in level 2)
- Only steps 6, 7, & 9 are scorable

*see handout
METHODS: Procedure - Stimuli

1) 7 objects

1) Line drawings of each object

1) Pictures of actions that correspond with the objects
METHODS: Procedure - Stimuli
Stimulus Object/Line Drawing/Action Picture
METHODS: Procedure - Response

- All silent responses by client
- Client follows nonverbal cues and directions from the clinician

*see handout*
METHODS: Procedure - Feedback

- In pure VAT, no verbal reinforcement or feedback
- All reinforcement must be silent
METHODS:
Procedure - Data Collection/Scoring

- Client is scored between 0-1
  - 1 - point given for fully correct performance without great hesitation or groping
  - .5 - point is given for a greatly delayed or self-corrected performance
  - 0 - is assigned to all other attempts
  - See scoring handout*

NOTE: Client must receive a 6.5 or higher at a task to move on to the next task - 1.a., 1.b., 1.d., 2, 4, 6, 7, & 9 (Level 1); 6, 7, & 9 (Levels 2 & 3)
Goal: CH will use functional gestures to communicate wants and needs across all communication contexts.
Pure VAT - Step 1 Demonstration
Modified Procedure

- **one-word verbal labels** were given for each object, picture, and action picture (stimuli)

- For example, while the cup was being manipulated, the clinician said “cup.”
Modified Feedback

- **verbal feedback** was given for CH’s correct performance on each task
Modified Stimuli

- Rather than lining up the stimuli across the table, clinician *grouped stimuli* in the center of the table.
Modified VAT - Step 1 Demonstration
Modified VAT - Step 6
Demonstration