I have no relevant financial or non-financial relationships to disclose.

THE USE OF CONSTRAINT INDUCED THERAPY (CIAT) IN THE TREATMENT OF APHASIA

KENTUCKY SPEECH LANGUAGE AND HEARING ASSOCIATION CONFERENCE
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GOALS
Discuss history of CIAT
Identify major elements of CIAT
Introduce steps used in CIAT
Introduce CIAT Plus

Review the system of supports

CIAT was developed as an outgrowth from PT work of constraining the good limb and forcing use of the impaired limb.

Constraint Induced Therapy (CIT)

The theory that by limiting use of unaffected limb you promote use of affected limb.
30 seconds

ORIGINALLY CREATED TO TREAT CHRONIC APHASIA

6 MONTHS OR LONGER

BENEFITS THOSE WITH LONGER POST STROKE EPISODES AND THOSE WHO HAVE BEEN DISMISSED FROM TREATMENT UNRESOLVED

14 Years of research
BUT ALSO BENFICIAL FOR RECENT APHASICS

CIAT doesn’t constrict a body part.....

But we do attempt to constrict certain behaviors........

SO WHAT IS CIAT?

Specifically, Therapy that avoids using strategies such as gesturing, drawing, writing

OR USING OTHERS
Avoiding all means of communication except speech

CIAT trains the patient to avoid the use of compensatory techniques to communicate

Pulvermuller (2001) strongly argued that patients with aphasia use the accessible communication system that requires the least amount of effort.

Why

The use of strategies other than speech is considered to lead to non-use and avoidance of verbal communication

Speech use is stagnant. Non-speech behavior becomes habitual. Other symbols system not consistently used so what happens?
Increases speech avoidance and dependence on others

Our goal for our patients is communication success

But we may foster nonuse by training compensatory techniques

Is our therapy promoting less effective, but more easily accessible communication systems?

Do these compensatory communication strategies aide in language recovery?

Or do they strengthen learned non use of speech?
Characteristics of CIAT

1. CONSTRAINTS
   - WAIT, WAIT, WAIT.....
   - IGNORE GESTURES
   - DISREGARD HEAD MOVEMENTS
   - GUIDING TO USE SPEECH THAT THEY CAN STILL ACCESS

KEEP OTHERS QUIET
2. USE OF BARRIERS

- Facilitates, almost requires speech
- Hides body parts, pointing
- Preventing learned non-use from interfering

3. MASSED PRACTICE

2 4

8 hours and 48 minutes of therapy a week were necessary to produce a significant treatment effect

No way, not with my caseload

Many recent studies strongly suggest longer tx sessions are beneficial for neural rewiring

5 days = 1 hour 46 minutes
6 days = 1 hour 28 minutes
7 days = 1 hour 16 minutes

45 minutes in the morning
30 minutes in the early afternoon
15-30 minutes late afternoon

ENLIST OTHERS

Breaks are built in....
4. ALWAYS HIGH NUMBER OF TRIALS
I'M SORRY WHAT DID YOU SAY?
SAY IT AGAIN
HUH?

5. SHAPING OF SPEECH
APPROXIMATIONS ACCEPTED
MOVE TOWARD IMPROVED SPEECH

6. BEHAVIORALLY AND PRAGMATICALLY RELEVANT

THE GOAL IS SPEECH

ACTIVE ENGAGEMENT
ONE ON ONE VERSUS GROUP ACTIVITY

7. SYNTAX CONSTRAINTS
REQUEST RESPONSE REPLY

DONNA DO YOU HAVE......

“YES, I HAVE 4 RED SQUARES” OR “NO, I DO NOT HAVE 4 READ SQUARES”

ALWAYS USING THE SAME SYNTAX CONSTRAINTS, SAME ORDER, COMPLETE SENTENCES

8. GRADATIONS OF LANGUAGE INTRODUCE MORE COMPLEX UTTERANCES AS SESSIONS PROGRESS
9. WRITTEN SUPPORTS

VARIABLES KEY WORDS AVAILABLE FOR PATIENT SUCCESS

CIAT WORKSHEET

CIAT CARDS

MORE CIAT CARDS

WRITTEN SUPPORTS FADED WITH PATIENT MASTERY
Clinician responses verbal with supports

“NO”

“STOP”

“WAIT”

CIAT PLUS

- CARDS WITH WRITTEN WORDS
- LONGER SYNTACTIC CONSTRAINTS

- “Mary, may/can I please have two red shirts”
- “Susan, I do not have two red shirts”

MAY INCLUDE RHYMING WORDS; CATEGORY WORDS; EVERYDAY SITUATIONS

SPECIFIC SYSTEM OF CUES

PRIMING THE SYSTEM

YOU ARE GOING TO SAY_____.
GET READY....
HERE WE GO....
IMITATION WITH DIRECT MODEL.....
“SAY.........”
ALLOW APPROXIMATIONS

CLOZE PASSAGE WITH A PHONEMIC CUE
“THE GRASS IS G........”

CLOZE PASSAGE WITHOUT A PHONEMIC CUE
“THE GRASS IS .......”

QUESTION
“WHAT COLOR IS GRASS?”

FINALLY
“WHAT IS THIS?”
PROMPT

Prompts for Restructuring Oral Muscular Phonetic Targets

tactile-kinesthetic approach that uses touch cues to a patient’s articulators (jaw, tongue, lips) to manually guide them through a targeted word, phrase or sentence

PATIENT SELECTION CRITICAL TO SUCCESS

FLUENT APHASIA

- Press of speech
- Decreased auditory comprehension
- Decreased internal feedback
- Can convince others they are communicatively intact

They initially present as much more communicative: generic phrases, cocktail speech
PRESS OF SPEECH
• Decreases due to the turn taking, specific behavioral responses practiced hundreds of times

Both press of speech and auditory comprehension are addressed through series of specific verbal responses

CIAT IMPROVED
OUTPUT OF CONTENT INFORMATION AND LENGTH OF UTTERANCES

Both have some level of intact comprehension and can respond successfully to various level of redirects

NON FLUENT APHASIA
Often experience deficits in motor planning leading to delay in verbal responses, which allows others to step in and take over verbal expression.

FRUSTRATED = NO TALKING
CIAT TEACHES
SPECIFIC SEQUENCED VERBALIZATIONS

MOST STUDIES REPORT NOT ONLY IMMEDIATE GAINS AFTER AS LITTLE AS 2 WEEKS BUT ALSO.....

MAINTENANCE OF THOSE SKILLS

AND AS LONG AS ..... 3

• POST TESTING

Not recommended for use with a Global aphasic

HIGH TOLERANCE FOR THERAPY
“Reminds me of working in the mines”
“Doing the same thing over and over again”
FAMILY TRAINING

- FAMILY TRAINED TO COMPLETE CIAT
- UNDER SUPERVISION FOR 2 DAYS
- INDEPENDENT COMPLETING PROGRAM FOR 8 DAYS

THERAPIST AVAILABLE FOR ANY CONCERNS

BOTH GROUPS EQUALLY IMPROVED ON STANDARIZED LANGUAGE ASSESSMENT

MEINZER, STREIFTAU, ROCKSTROH (2007)

COMMUNICATIVE EFFECTIVENESS INDEX (CETI)

Evaluates the quality of everyday communication via 16 questions

Developed with input from patients with aphasia who identified meaningful communication situations
Those close to the patient evaluate the quality of everyday communication

Please Rate 's ______ ability at...

Getting somebody's attention;

Indicating that he/she understands what is being said to him/her;

Having coffee-time visits or conversations with friends and neighbors;

Starting a conversation or changing the subject;

Starting a conversation with people who are not close family;

Being part of a conversation when it is fast and there are a number of people involved;

Participating in a conversation with strangers.

COMMUNICATION ACTIVITY LOG

• RATES THE AMOUNT OF EVERYDAY COMMUNICATION FOR 11 ITEMS

• 0 = NEVER
• 6 = AS OFTEN AS BEFORE THE STROKE

AFTER CIAT BOTH PATIENT AND SIGNIFICANT OTHERS REPORTED AN INCREASE IN THE AMOUNT OF EVERYDAY COMMUNICATION
NOTES SUCCESSFUL COMMUNITY INTERACTIONS

Games that can promote CIAT

THERAPY APP


www.constanttherapy.com

www.promptinstitute.com