

Interdisciplinary Model of Cognitive Communication Group Therapy for Children with ABI

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Overview of Presentation

- Introduction
- Literature Review
- Overview of Groups
- Group Content
- Outcome Measures
- Lessons Learned
- Future Directions



Literature Review

- Acquired Brain Injury in Children
- Executive Function and Development
- Strategies for Executive Function: Project Based Approach
- Skill Development and Generalization to a Natural Environment
- Collaborative Care: Interdisciplinary Approach

Acquired Brain Injuries in Children

- Children & Adolescents with Brain Injuries are likely to experience cognitive, physical, academic, emotional & psychosocial sequelae (Harris, 1994)
- Many young people with ABI have poorly developed pre-injury social networks, low self-esteem, & often feel isolated & vulnerable (Meghji, 1995)

Executive Function: Definition

Executive functions describe a set of cognitive abilities that control and regulate other abilities and behaviors. *They are necessary for goal-directed or strategic behavior.*

They include the ability to:

- Initiate goal directed behavior,
- Inhibit behaviors/actions
- Monitor and change behavior,
- Plan and organize
- Set goals, problem-solve
- Self-evaluate



Executive Function & Development

- Executive Functions are frontally mediated skills that emerge in the first year of life & continue to develop until puberty & beyond
- Attentional Control & Processing Speed: gradual increase in these skills through adolescence with a growth spurt at approx. 7-9 yrs. of age & at approx. 15 yrs. of age
- Planning & Use of Strategies: motor organization & verbal concept formation has shown a peak development between 7-11 yrs. of age

• Catroppa C. & Anderson B.. Pediatric Rehabilitation April 2005

Skill Development and Readiness

Middle childhood is a time to:

- Develop competence in interpersonal and social relationships
- Increase ability to participate in meaningful interpersonal communication
- Increase independence
- Develop interests
- Ability to describe experiences and talk about thoughts and feelings
- Develop awareness of the future

Collaborative Patient-Centered Practice

- **Collaborative patient-centered practice** is designed to promote the active participation of several health care disciplines and professions. It enhances patient-, family-, and community-centered goals and values, provides mechanisms for continuous communication among health care providers, optimizes staff participation in clinical decision making (within and across disciplines), and fosters respect for the contributions of all providers.

(Health Canada IPE > http://www.hc-sc.gc.ca/hcs-sss/hhr-rhs/strateg/interprof/index_e.html#skipall)

Collaborative Care: BIRT Outpatient Team

- Established Interdisciplinary Outpatient Team
- Best Practice Model to best meet the identified needs of clients & family
- Example of Program Development from an Interdisciplinary Model: targeting similar skills from various perspectives
- Collaborative Group Model vs. Individual Therapy
- Family Centered Approach involving families to gain understanding of strengths & weakness and to generalize skills to a natural environment

Group Time Line : Program 2007-2008

Book Club	Writing Club	Video Club	Injury to Success
Fall 2007	Winter 2008	Winter 2008	Spring 2008
7-10 years	7-10 years	10-13 years	12-15 years

Group Goals: Cognitive and Communication Skill Development

- Attention
- Memory
- Critical thinking skills of Planning, Organization, Reasoning, Problem Solving
- Self- awareness
- Language Processing
- Language Formulation

Group Goals and Objective: Functional Applications

- Understanding of & ability to generate narrative stories & explanations
- Reading abilities
- Writing abilities
- Self advocacy & Self awareness skills

Model of Service Delivery

Concurrently offered 2 groups

- Skills Based Therapy Group for Children with Acquired Brain Injuries facilitated by a Speech Language Pathologist & Occupational Therapist, to provide strategy based interventions
- Parent Education and Support Group facilitated by a Social Worker. Provided education & support to the children's families. The parent group learned and provided strategies to support the carryover of the skills focused on in the children's group

Group Overview: Book Club & Writing Club

- Two groups were offered over a 7 week period in the fall of 2007 and winter of 2008
- Recruitment: outpatient caseload and waitlist, identified needs & assessment
- Letter of Invitation to family
- The program content was developed based on identified needs from parents and clinicians
- The topics and focus evolved over time as clients demonstrated areas of strengths and weakness
- **The second group built on the experiences and feedback from the first group**

Program: Book Club & Writing Club

BOOK CLUB

- The 7-wk. Oct.-Dec., 07
- 4 clients aged 7-10 yrs.
- 2 girls, 2 boys
- Diagnosis: ABI: 2 Encephalitis, 2 Neuro-Oncology
- 3/4 clients identified with Individual Education Plan at School, 50% had an IPRC

WRITING CLUB

- The 7-wk. Jan. - Mar., 08
- 4 clients aged 7-10 yrs.
- 1 girl, 3 boys
- Diagnosis: ABI: 1 Encephalitis, 2 Neuro-Oncology, 1 Post concussion
- All clients identified with Individual Education Plan, 50% had an IPRC

Book Club and Writing Club: Curriculum

Book Club

- Introduced narrative children's stories about ABI
- Identified story concepts
- Learned how to retell story in sequence with external organization support
- Generated a personal narrative
- Practiced & reinforced skills through weekly challenges



Writing Club

- Recognized critical story components & learned to retell stories
- Organizational strategies supported identification of key information & writing introductory sentences, opening statements, & story development
- Practiced & reinforced skills through weekly challenges

Video Club & Injury to Success Curriculum

Video Club

- Reviewed and critiqued information from a variety of media sources on Injury Prevention
- A critical review of media form, was used to organize & recall information
- Generation & organization of ideas with logical reasoning promoted Critical Reasoning
- Practiced & reinforced skills through weekly challenges



Injury to Success

- Planned & prepared scripts for the production of a brain injury awareness video
- Myths & misconceptions about ABI addressed by video taping
- A self-evaluation form was used to assess verbal & non-verbal communication skills.
- Self-evaluated performance & developed plans to improve targeted skills
- Practiced & reinforced skills through weekly challenges

Group Structure: Book Club & Writing Club

- Structured format to help recognize critical parts of a story & develop story-writing skills
- A structured group model assisted with organization
- An external organizational strategy, the **story board**, was used to identify key information, organize the information & provide structure to write an introductory sentence & short story
- Carryover of skills through homework assignment was required



Writing Club: Storyboard			
TITLE			
WHO	Where	WHEN	
START			
Problem			
Reaction			
PLAN			
The End			

Executive Function Strategies within the Groups

- Setting, reviewing, & self-evaluating goals,
- Problem-solving around spontaneous issues that arose during the group (i.e., how to remember to do one's homework),
- Use of visual strategies to assist with self-monitoring to inhibit or initiate actions (i.e., waiting to take one's turn, remembering to volunteer)
- Provision of external strategies for organization (i.e checklists, storyboard, outline or group plan)

Bloorview
KIDS REHAB

Generalization to Home & School

Parent Group: focused on learning skills targeted in the children's' group, gaining insight into strengths and challenges of their children & learning & sharing methods to support carryover of skills to home & school environments

Weekly Challenges: practice & reinforcement of targeted skills at home with parental support

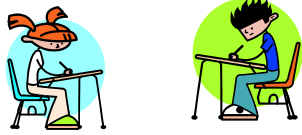
Summary Reports: Written report of child's participation & performance was provided along with specific recommendations of strategies to promote carry-over of skills to home & school



Bloorview
KIDS REHAB

Writing Club: Session Format

- Gain familiarity with group expectations & routines,
- Increase attention & retain information,
- Provide repetition needed for acquisition of information,
- Increase participation within the group.



Sample Group Plan: Writing Club

- All About Me (*member will present information about themselves to other group members*)
- Review Group Plan & Group Rules
- Review of Personal Goals
- Warm-up Activity
- Read Story & Retell story
- Stretch
- Write Story
- Review of day (*review progress on personal goals and provide feedback to other members*)

Outcome Measures Used: Writing Club

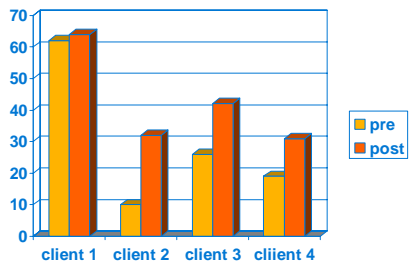
- Children's Handwriting Evaluation Scale Modified(CHES-M)
- Test of Written Language – TOWL
- Goal Attainment Scaling Goals – (GAS)
- Modified Canadian Occupational Performance Measure – (Modified COPM)
- Qualitative Outcomes

Children's Handwriting Evaluation Scale – Modified CHES-M; Writing Club

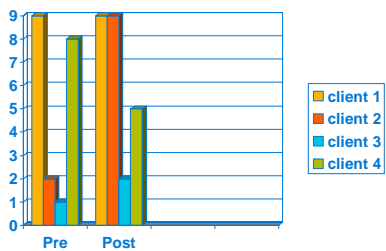
The qualitative scale of the CHES-M is a 10-point scale that evaluates the quality of the child's printing. Concepts such as letter formation, spacing, position in relation to the line, pressure & general appearance are evaluated.

The ratings are evaluated for children in primary grades

CHES_M Written Output: Writing Club



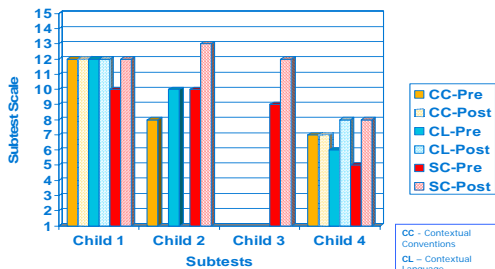
CHES_M: Quality



Test of Written Language-3rd Edition (TOWL-3)

- Standardized assessment tool (Ages 7- 18 yrs), assesses written language skills
- Subtests include:
 - Contextual Conventions* - evaluates capitalization, punctuation, & spelling
 - Contextual Language* - evaluates vocabulary, complexity of sentence structure (syntax), use of grammatical rules, and basic paragraph development (i.e., use of introductory phrases)
 - Story Construction*- evaluates the construction of a narrative (i.e., plot, character development, & general composition)

TOWL-3 (Cont.)

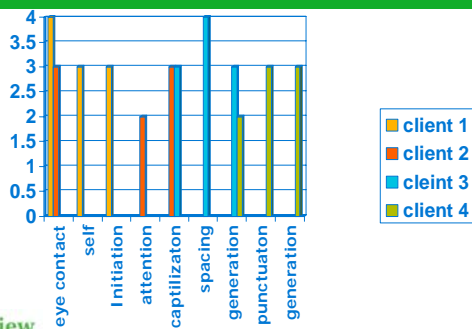


CC - Contextual Conventions
CL - Contextual Language
SC - Story Construction

Goal Attainment Scaling Goals for Youth

- GAS goals were generated for each individual based on two sessions of observation
- GAS goals targeted skills for individuals where facilitators could see the potential for change
- GAS goals were developed around the following themes:
 - Social Communication (i.e. eye contact, initiation)
 - Attention & Listening
 - Storytelling & Writing (i.e. punctuation, capitalization, spacing words, generation of text)
 - Self Advocacy

Goal Attainment Scale: Writing Club



GAS: Writing Club

- 12 Goals Set
- 3 Partially Achieved
- 6 Achieved
- 3 Exceeded Expectation



Modified Canadian Occupational Performance Measure – Modified COPM

- Parents completed Modified COPM in first & last sessions
- Targeted parent's perceptions of how their child knew/understood the skills & how satisfied they were with how their child performance
- Generalized the concrete skill set taught in the group to functional skills performed in the home/community environments



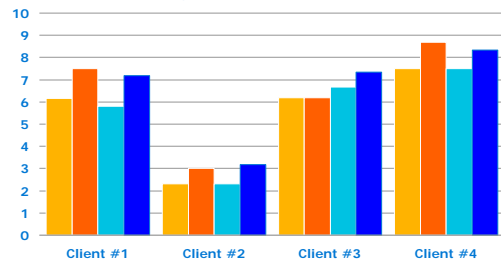
Modified COPM

Skills listed included:

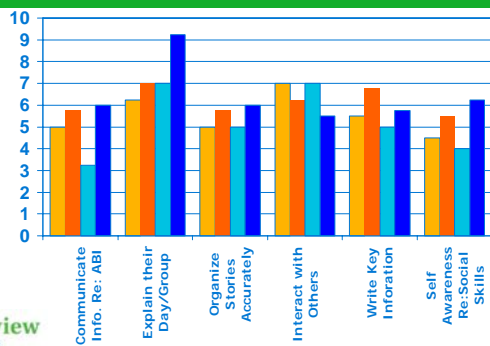
- Communicate information about their ABI to others
- Explaining what they did during their day/group
- Organize stories accurately
- Interact with others
- Write key information
- Self awareness of their interaction/social skills

Modified COPM Writing Club

Pre & Post Knowledge/Pre & Post Satisfaction



Modified COPM: Change in Performance and Satisfaction across Skills



Qualitative Outcomes

- Parents awareness of their child's needs improved (this led to a decrease in frustration for parents when assisting with homework)
- Parents became better advocates for their child's needs in school system
- Parents reported using activities from group at home and at school (i.e. storyboard)
- Individual reports & recommendations shared with school

Lessons Learned From Groups offered in 2007-2008

Positives:

- interdisciplinary collaboration model approached skill building from different perspectives
- Parent involvement supported understanding & reinforced generalization.
- Strategies introduced, practiced & reinforced
- Group environment allowed promotion of executive function skills
- Carry over to home & school environment empowered both child & family to share strategies that work.

Lessons Learned From Groups offered in 2007-2008

Positives

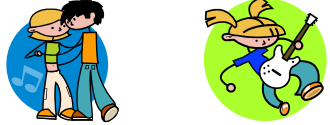
- Accommodated clients at different levels.
- Individualized reports provided to families were shared with school & other service providers
- Recommendations to access technology where appropriate was provided.
- Group structure allowed for goal setting & self evaluation
- Activities were fun & engaging
- Capacity Building: families established links with others & accessed other resources & groups

Lessons Learned

Challenges:

Marketing

- Convincing clients/families that their needs are best addressed in group format as opposed to individual therapy
- Competing demands for client's & families
- Buy-in for older clients & parents is challenging



Lesson's Learned

Challenges

- Client's at different levels require more planning time to adjust environment & space
- Planning time & level of support needed to be revised as the group progressed
- Volume of material needed to be adjusted to client's abilities & allow for reinforcement.
- Ratio of staff to clients is high
- Timing of group: fatigue, & family obligations
- Homework completion depended upon parental involvement

Future Directions

- Writing Club is being offered in the fall of 2008 (concurrent child & parent group)
- Exploring methods to involve schools in planning, evaluation & carry-over
- Planning for video/media group for youth spring of 2009 to target executive function skills

Questions & Contacts

Questions?



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Thank you
