Group Treatment in Social Competence after Brain Injury: An Evidence Based Model

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Disclosure

Lenore Hawley, LCSW, CBIST & Jody Newman MA, CCC-SLP are the authors of the GIST intervention and own the copyright for the GIST workbook.

Objectives

• Define social competence
• Review history and relevant research in social competence group treatment after TBI
• Describe GIST: an evidence-based group SC treatment model
• Describe research of GIST intervention
Social Competence

- To communicate our needs and thoughts
- To listen and understand others
- To communicate non-verbally
- To regulate our emotions
- To understand social boundaries and rules
- To communicate assertively and confidently

Social Competence involves the cognitive, emotional, and communication skills and behaviors needed to interact successfully, as well as the ability to determine how to apply those skills in a variety of social situations.


Common Social Competence Problems

- Poor comprehension
- Poor initiation of conversation
- Focus on self/injury
- Difficulty maintaining topic
- Talking on and on
- Difficulty picking up social cues, emotions
- Difficulty maintaining social boundaries
- Lack of confidence
- Difficulty taking another’s point of view
- Poor eye contact
- Difficulty regulating emotions
- Impulsive behavior
- Reduced self awareness/insight
- Difficulty making and keeping friends


History of Group Social Competence Treatment

- Evidence-based, studied since 1920s – (Special Ed, Psychology, Social Work)
  Depression, anxiety, learning disability, developmental disability, schizophrenia

- Behavioral/social learning theory strategies
  ✓ feedback, reinforcement, modeling, individual goals, homework

- Psycho-educational/psychotherapy model
  ✓ Therapeutic factors of group therapy

History Group SC Treatment in Brain Injury

Information gleaned from previous work with other populations applied to field of BI (behavioral & social learning theory, client-led goal-oriented treatment, contextual relevance, group process)

Examples of BI structured group treatment since 1970s:
- Ben-Yishay, Diller, Rath
- Erlich & Sipes
- Ylvisaker
- Prigatano

Adult BI Social Competence Group Treatment: Evidence-base

Completed studies:
- Efficacy of Group Interactive Structured Treatment – GIST (Dahlberg, Cusick, Hawley, Newman, et al. 2007) moderate/severe TBI
- Efficacy of Improving First Impressions treatment program (McDonald, et al. 2008) severe TBI

Ongoing research including:
- Peer-led SC Skills Program, England (Beeke, et al., 2014 - 2016)
- GIST based study, Norway (Stubberud, et al. 2015)

ACRM recommendation for Group Social Competence Treatment

Recommendations for treatment of impairments of social communication:
- Structured group treatment
  - Group Interactive Structured Treatment (Hawley & Newman)
  - Beyond First Impressions (McDonald, et al)

The GIST Evidence-based Model

Group Interactive Structured Treatment - GIST

• 13 week structured group
• Once per week, 1.5 hour sessions
• Blending structured curriculum/group process
• Co-lead: speech-language & psychotherapy
• Session-by-session workbook


Theoretical Background

Holistic Neuro-rehabilitation Approach

• Holistic "whole person" approach (physical, social, cognitive, emotional)
• Start where the person is
• Emphasis on self awareness
• Build on intact strengths
• Break tasks into measurable steps
• Build on success

(Ben-Yishay, 1985; Prigatano, 1986)

Theoretical Background

Cognitive-Behavioral Treatment

- Approach that integrates behavior therapy and cognitive therapy
- Goal oriented with focus on the present
- Strategies - modeling, repetition, reinforcement, feedback, homework, goal setting, assertiveness training, social problem-solving, cognitive restructuring

(Meichenbaum, 1977; Beck, 1976; Dobson, 2002)


Theoretical Background

Group Therapy

Emphasis on group therapeutic factors of change
- Universality
- Altruism
- Group Cohesion

Not individual therapy in a group

(Yalom, 1995; Rose, 1977, 1998)


GIST Key Treatment Elements

1. Structured Curriculum Blended with Group Therapy Process
2. Holistic Approach
3. Self Awareness – Self Assessment
4. Individual Goals
5. Group Process
6. Social Problem Solving
7. Repetition, Reinforcement, & Feedback
8. Generalization/Family Involvement

1. Blending of Structured Curriculum & Group Process

- Session by session outline - workbook
- New topic and information each session
- Whole group discussion for feedback and problem solving
- Paired conversations


2. Holistic Approach

- Traditional Approach
  Therapists work independently
  Approaches the individual from a single perspective

- Holistic Approach
  Co-therapists (psycho-social, speech-language)
  Holistic approach of individual’s social competence
  Works as a team
  Two sets of eyes in the room


3. Self Awareness, Self Assessment
4. Individual Goals

- Self Awareness – first step to change
- Self Assessment – SC strengths/challenges
  - Feedback from group and family/others
- Individual person-centered SC goals
  - Relevant
  - Realistic
  - Measurable

5. Group Process

Social Competence TX in group offers:
• Realistic social setting
• Opportunity for feedback from others
• Interpersonal learning
• Universality, altruism, group cohesion
• Group support system

GIST therapists facilitate rather than teach:
• Let go of some control: not the only experts in the room
• Give info, listen, encourage, cue, reflect
• Provide opportunity for interaction & problem solving


6. Social Problem Solving

• Group members share SC problems from daily life
• Therapists initially model problem solving steps
• Group members practice problem solving
  ➢ generating solutions
  ➢ give suggestions and feedback
• In later sessions, group members model problem solving for each other


7. Repetition, Reinforcement, & Feedback

• Weekly review of goal progress
• Repetition of previous topics
• Homework
• Family input
• Workbook
• Small group interaction

8. Generalization & Role of Family

- Family orientation meeting
- Family participation - goals, homework, and problem solving
- Social problem solving – sharing real life issues
- Video interaction and feedback
- Community outing
- Written recommendation plan


Overview of GIST Session Topics

GIST Session Topics

Orientation Session
Session 1: Overview & Skills of a Good Communicator
Session 2: Self Assessment & Goal Setting
Session 3: Starting Conversations
Session 4: Conversation Strategies and Using Feedback
Session 5: Assertiveness/Problem Solving
Session 6: Community Outing

Session 7: Social Confidence Through Positive Self Talk
Session 8: Setting/Respecting Social Boundaries
Session 9: Video Taping – Social Problem Solving
Session 10: Group Video Review and Feedback
Session 11: Conflict Resolution
Session 12: Closure and Celebration

GIST Efficacy RCT: 2002 - 2007

National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR)
TBIMS


Efficacy RCT: 2002 - 2007 Research Team

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- Jody Newman, MA, CCC-SLP
- Lenore Hawley, MSSW, LCSW, CBIST
Purpose of Study

To evaluate the efficacy of a manualized group treatment intervention to improve "social communication skills" for individuals with traumatic brain injury


Hypotheses

1. Group "social communication skills" training will improve specific "social communication deficits" for individuals with TBI one year or more post-injury

2. Overall social integration and life satisfaction will be improved and maintained at 6 to 9 months post-treatment


Study Inclusion Criteria

- TBI (no stroke; anoxia; tumor, etc)
- Discharged from inpatient TBI rehab (moderate/severe)
- Ages 18 to 65
- At least one year post-injury
- Rancho level 6 or above (interview)
- Functional language and memory skills (FIM/interview)
- A social communication impairment identified by the participant and/or family member

Study Exclusion Criteria

- Significant behavioral concerns that could interfere with group process (e.g., anger outbursts)
- Medical conditions precluding participation
- Diagnosis of previous/current significant psychiatric disorder
- Significant history or current substance abuse
- Significant motor disorder – unintelligible speech, need for attendant during group
- Non-English speaking


Treatment Efficacy

Demographics

48 participants with TBI:

- 40 male - 8 female
- Mean age 42 years
- Mean 9 years post injury
- 92% high school or greater education
- 25% employed/student
- 40% unemployed
- 23% volunteer


Treatment/Deferred Treatment Design

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<td><strong>Group</strong></td>
<td>√</td>
<td>12 Week Tx</td>
<td>√ Post-test</td>
<td>√ 3 mos f/u</td>
<td>√ 6 mos f/u</td>
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<tr>
<td><strong>Deferred Group</strong></td>
<td>√</td>
<td>√</td>
<td>12 Week Tx</td>
<td>√ Post-test</td>
<td>√ 3 mos f/u</td>
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Profile of Pragmatic Impairment in Communication (Linscott, et al 2003)

PFIC - 84 behavior items assessing frequency and severity of specific comm. impairments divided into 10 subscales

- Each participant videotaped for a 10 minute conversation with an unfamiliar partner
- Videotapes were rated randomly by two raters blinded to condition (i.e. baseline, post-treatment, or f/u)
- Each sub-scale has an overall summary scale rating of 0 (normal) to 5 (very severely impaired)
- Lower scores on the PFIC indicate better functional communication skills


Social Communication Skills Questionnaire-Adapted (McGann, Werven, & Douglas 1997)

SCSQ-A - Subjective assessment that can be completed by individual & a significant other (SO)

- 37 social communication skill items
- 5-point rating scale from “never” (1) able to perform, to “always” (5)
- Higher score indicates better social communication skills


Goal Attainment Scale (Kiresuk, 1994)

GAS - Flexible system of measuring outcome goals

- Based on a five-point scale
- Levels of goal attainment are expressed objectively in terms of concrete behaviors that can be observed and recorded
- Goals developed by participant
- Goals rated by participant, significant other, and therapists

Satisfaction with Life Scale
(Diener et al., 1985)

SWLS - Measure of global life satisfaction
- 5 statements rated on scale from 1 to 7
- Rated by participant only
- Higher scores indicate greater life satisfaction

- Social Integration and Occupation subcales CHART (participant and family)
- Social Integration and Productivity subcales Community Integration Questionnaire – Revised (participant and family)

Summary of Findings:

GIST SC Intervention:
- After the first 12 weeks, participants in the treatment group showed significant effects, compared with no treatment, on 7 of 10 PFIC subscales (P range, .024 to < .001) and the SCQ-A (P < .005)
- Overall life satisfaction significantly improved and maintained 6 months post-treatment (SWLS)
- Improved social communication skills were not associated with improved productivity or social integration as measured by CHART or CIQ

Efficacy Study Limitations:
- Limited inclusion criteria – need to include co-existing diagnoses
- Only GIST authors implemented TX – need for GIST therapist training
- Outcome measures – more sensitive measures of social integration and participation needed
- Comparison of GIST to alternative treatment

GIST Multi-site Effectiveness Study: (2011-2015)

Treatment of Social Competence in Military Veterans, Service Members and Civilians with Traumatic Brain Injury
*Funded by the Department of Defense*

Cynthia Harrison-Felix, Ph.D., PI
Clare Morey, MA, CCC-SLP, Lead Study Coordinator

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GIST Multi-site Effectiveness Study
Multi-site two-arm randomized controlled trial, pilot & 2 treatment waves
- Craig Hospital – lead site
- Rehabilitation Hospital of Indiana
- Hunter Holmes McGuire VA Medical Center
- VA Palo Alto Healthcare System
- Rehabilitation Institute of Michigan
- University of Washington

Current Status:
- Therapist training – completed
- Treatment phase - completed
- Analysis phase – in progress
Methodology

- Multi-site two-arm randomized controlled trial
- GIST group treatment (group process + content) compared to alternative treatment (content only, no group process)
- Assessment at baseline, post-treatment, 3-month follow-up
- Pilot & 2 treatment waves

Study Aims:

Aim 1. To measure the effectiveness of GIST with multi-site implementation

- Those receiving the GIST intervention will demonstrate improvement in social competence post-intervention, compared to those receiving the alternative intervention, as measured by a summary score on the PPIC.
- Those improvements will be maintained 3 months post intervention (PPIC).

Aim 1 (Continued):

- Compared to the alternative intervention, those receiving GIST will demonstrate improvement in social competence post-intervention & 3 months post, as measured by:
  - LaTrobe Communication Questionnaire,
  - Goal Attainment Scale,
  - Brief Symptom Inventory-18,
  - Post Traumatic Stress Disorder Check List – Civilian version
- Compared to the alternative intervention, those receiving the GIST will demonstrate improvement post-intervention & 3 months post in quality of life, as measured by the Satisfaction with Life Scale.
Study Aims:

Aim 2. Explore the potent ingredients associated with the GIST intervention

- Compared to the alternative intervention, those receiving the GIST intervention will demonstrate stronger social self-efficacy associated with improved social competence. Social self-efficacy will be measured by the Scale of Perceived Self Efficacy.

- For participants in the GIST intervention, higher group cohesion measured by the TFI Cohesiveness Scale will be associated with improved social competence.

Study Eligibility

Inclusion Criteria

- History of TBI after 2001 – self report on OSU TBI ID screen
- 6 mos + post-injury
- 18 years of age
- Level 1 or 2 on the Supervision Rating Scale
- Score >= 5 on Comprehension and Expression items on the FIM
- ID social competence problem on screening

Exclusion Criteria

- Unable to verbally communicate
- Unable to attend due to scheduling or transportation problems
- Participating in another group therapy or clinical trial

Study Measures

Baseline Only Measures:
- Cognitive Assessment
  - Trail Making Test, A and B
  - Rey Auditory Verbal Learning Test
  - Coding and Symbol Search of the WAIS-III
- Medical Symptom Validity Test

Primary Outcome Measure – Social Competence
- Profile of Pragmatic Impairment in Communication (PPIC)
- Rating of Video-taped Conversation
- 84 items grouped into 10 subscales
Secondary Study Measures

Social Competence
- LaTrobe Communication Questionnaire (LCQ)
- Scale of Perceived Social Self-Efficacy (PSSE)

Emotional Well-being
- Satisfaction with Life Scale (SWLS)
- Post Traumatic Stress Disorder Checklist (PCL-C)
- Brief Symptom Inventory (BSI-18)

Individual Goal Setting
- Goal Attainment Scale (GAS)

GIST Therapists

Two therapists from each study site
- 1 Speech-language therapist
- 1 Psycho-social therapist (social worker/psychologist)
  - Each with minimum of 5 years TBI experience
  - Psychotherapist – group therapy experience
- 2 full-day in-person interactive group therapist trainings
- Therapists trained as a team, given feedback as a team

GIST Therapist Fidelity

- Pilot phase – weekly fidelity feedback calls
- RCT waves – fidelity checks and feedback
- Fidelity Checklist
  - Session content – 2 from each session
  - 10 group therapist behaviors
    1. Gives group members prompt to give feedback to others
    2. Reinforces group members for giving each other constructive feedback, encouragement or support

GIST Multi-site Effectiveness Study
Baseline Results and Discussion


Baseline Results

Demographic Data:
- 179 adults - self-reported TBI
- 69% male
- 69% Caucasian
- Age range 20 to 83 (mean age of 45.5)
- 27% married
- 60% some college education (AA degree or above)
- 73% unemployed
- 30% history of military service


Brain Injury Characteristics

<table>
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<th>OSU-TBI-ID Diagnosis</th>
<th>Descriptor</th>
<th>n (%)</th>
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<tr>
<td>Possible Mild TBI</td>
<td>Altered mental status, no LOC</td>
<td>29 (16.6%)</td>
</tr>
<tr>
<td>Mild TBI</td>
<td>LOC less than 30 min</td>
<td>59 (33.7%)</td>
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<tr>
<td>Moderate TBI</td>
<td>LOC between 30 min and 24 hrs</td>
<td>25 (14.3%)</td>
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<tr>
<td>Severe TBI</td>
<td>LOC more than 24 hrs</td>
<td>57 (32.0%)</td>
</tr>
<tr>
<td>Unknown TBI</td>
<td>Unknown duration of LOC</td>
<td>5 (2.9%)</td>
</tr>
</tbody>
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Study population more heterogeneous than in the GIST efficacy study

Goal Attainment Scale:
10 Individual SC Goal Categories

- Assertiveness
- Amount of Information
- Sustained Focus
- Initiating, maintaining, ending conversations
- Self-centeredness

Participants demonstrated:
- Mild cognitive impairment
- Mild subjective & objective problems in social competence
- Reduced satisfaction with life
- High levels of anxiety and depression

Summary:
- Mildly impaired, independently functioning individuals with TBI report social competence issues
- These correlate with emotional distress and decreased satisfaction with life
- Validates self-perceived problems in this more heterogeneous group
Baseline Summary (cont.)

• These SC issues may be more subtle than those reported by individuals with more moderate to severe functional impairments - difficult to pick up on the objective measure (PPIC)

• This population may have greater awareness? More social opportunities?

• Social competence problems in this heterogeneous TBI population may be more difficult to capture with objective measures – need for additional holistic measures


Current Outcome Analysis (in progress)

• Study arms are balanced on all measures

• Check for center effects

• Comparing GIST vs alternative txt on all outcome measures


Related Publications


Thank You

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