ORIGINAL ARTICLE

Group interactive structured treatment (GIST): A social competence intervention for individuals with brain injury

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Abstract

Background: Impairments in social competence are among the most prevalent sequelae of traumatic brain injury and present a major barrier to a person returning to a productive life. The recent increased incidence of TBI among military personnel and the subsequent difficulties these individuals face reintegration into society accentuates the need for efficacious social competence treatment interventions for the TBI population.

Method and results: This paper outlines the theoretical model and clinical application of Group Interactive Structured Treatment (GIST) for Social Competence. GIST - Social Competence is a structured cognitive-behavioural group therapy model addressing the underlying cognitive, communicative and emotional impairments impeding social competence after TBI. A recent randomized control trial (RCT) funded by the National Institute on Disability and Rehabilitation Research demonstrated the efficacy of this programme. GIST integrates the principles of established cognitive-behavioural therapy, group therapy and holistic neuro-rehabilitation in a manualized 13 week intervention combining a structured curriculum with a group therapy format. The structured cognitive-behavioural approach allows even those with significant underlying deficits (including self-awareness, memory, problem-solving, etc.) to benefit from this intervention.

Conclusion: The GIST model can be applied to other treatment areas in TBI rehabilitation. Clinical observations from application of GIST with military personnel are reviewed.

Keywords: Social skills, brain injury, group therapy, social communication skills, social competence

Introduction

The ability to successfully interact with others and develop social and vocational relationships is critical to being an active member of society. Vocational, marital and social success depend upon one’s ability to communicate his or her needs and thoughts, listen and understand others, regulate emotions in social interactions and interact in a manner which is assertive and confident [1–4]. Impairments in social competence are among the most prevalent and persistent sequelae of traumatic brain injury (TBI) and present a major barrier to a person returning to a satisfying and productive life [1].

The recent increased incidence of TBI among military personnel and the subsequent difficulties these individuals face reintegrating into society [5] accentuates the need for efficacious social competence treatment interventions for the TBI population.

Social competence encompasses the cognitive, emotional and communication skills (including pragmatics) needed to interact successfully, as well as the ability to determine how to apply those skills in a variety of social situations [6–8]. Individuals with TBI may have difficulty with a wide range of social competence skills such as starting, sustaining and/or ending conversations; staying focused on a
social interaction; respecting and setting social boundaries; taking turns; initiating social activities; interacting assertively; resolving conflicts; initiating appropriate topics; and social problem-solving. Being socially competent requires some of the very skills that are frequently impaired after TBI including initiation, awareness, sustained attention, social perception, problem-solving, language, speech, and emotional regulation.

Social interactions with individuals with TBI have been characterized as effortful and unrewarding [9]. Without successful social skills, a person may become isolated, engage in conflicts and be denied access to social and vocational opportunities [10, 11]. Loneliness and social isolation have consistently been cited as a major concern post-TBI [12] and marital breakdown is a common consequence [13, 14].

**Group interactive structured treatment (GIST) for social competence**

Group Interactive Structured Treatment (GIST) for Social Competence is a structured cognitive-behavioural group therapy model addressing the underlying cognitive, communicative and emotional impairments impeding social competence after TBI [10]. GIST was developed by a clinical social worker and a speech-language pathologist, both with over 30 years experience treating individuals with TBI. Working with treatment groups through a private practise in the community, the GIST developers have applied this group model over the past 18 years to individuals with mild, moderate, and severe TBI, as well as individuals with acquired brain injury, and with active duty military and veterans from the recent conflicts. A recent randomized control trial (RCT), funded by the National Institute on Disability and Rehabilitation Research and conducted at Craig Hospital, demonstrated the efficacy of this programme [15]. A feasibility study, funded by the Colorado Traumatic Brain Injury Trust Fund, substantiated the efficacy of the programme for individuals with co-morbid psychiatric diagnoses and alcohol and substance abuse histories. The feasibility study is described in a separate article in this journal issue.

GIST integrates the principles of established cognitive behavioural therapy [16–19], group therapy [20–23] and holistic neuro-rehabilitation [24, 25] in a manualized (based on a manual) 13-week intervention combining a structured curriculum with a group therapy format. The structured cognitive behavioural approach allows even those with significant underlying deficits (including self-awareness, memory, problem-solving etc.) to benefit from this intervention [15].

Within GIST’s structured group therapy sessions, empirically validated active mediators from Cognitive-Behavioural Therapy (CBT) are utilized to promote behavioural change. These include: observation, verbal persuasion, feedback, cognitive restructuring, cueing, modelling, behavioural rehearsal, social problem-solving, assertiveness training, social reinforcement and homework. Specific social competence skills are discussed, modelled and practised in small and large interactive groups. Group members receive a session-by-session workbook with weekly homework, providing an opportunity for repetition and practise in the real world, as well as feedback and reinforcement from available support persons. Generalization is not only promoted by family/significant other involvement, but also through weekly homework, practise across environments and real-life social problem-solving. Family/significant others are asked to participate in three support person sessions emphasizing their role in encouraging development and generalization of social competence skills.

Commonly accepted group process mediators [20, 23] are also emphasized within the groups to advance group members through the sequence of stages of the GIST model. These include: universality, the realization that one is not alone; altruism, the ability to be helpful to others; and group
cohesion, a sense of belonging and group trust. Therapists approach the group with an emphasis on group process, encouraging the group to interact, share insights, give and receive feedback and help each other. The group therapists guide the conversation and encourage group interaction, rather than teaching the curriculum. An interactive group approach offers the opportunity for group members to learn from each other’s successes and failures. Group members discuss real life problems and hear a variety of potential strategies for handling such problems. In the GIST programme, group therapists model the problem-solving process, rather than explicitly teaching specific problem-solving steps. Group members gradually become more independent in solving problems as they practise in the group and are encouraged to try out potential solutions in everyday life. Social self-efficacy is strengthened by this process, reinforcing the social self-confidence and desire to apply new skills to a variety of situations, promoting generalization.

The stages of the GIST model are based on the principles discussed in holistic neuro-rehabilitation literature. Participants in GIST groups go through a series of stages, both sequentially and repeatedly as the individual develops new skills and awareness [24, 25]. These stages are:

(1) Engagement – The attention and motivation necessary to participate in the treatment process, facilitated through the interactive group process, emphasizing the concepts of universality, altruism and group cohesion.

The GIST process begins with engagement. This begins in the orientation session of GIST, as group members share their histories and discover that they are not alone in the challenges they face. Engagement continues to develop throughout the GIST sessions, as group members receive feedback and reinforcement from each other and the group therapists and build a sense of group cohesion.

(2) Awareness – The knowledge of one’s own strengths and challenges and how these may impact current social functioning, facilitated through universality, learning new information about social competence, self-assessment and feedback from the group and support person.

Group participants continuously have opportunities to gain insight and increased awareness through discussion of the skills of a great communicator, completing an individual self-assessment of social competence strengths and challenges, exchanging feedback with others in the group, taking part in social problem-solving and feedback, receiving video feedback and engaging in homework activities requiring self-reflection and family/significant other feedback.

(3) Goal setting – The process of identifying realistic, personally relevant and measurable social competence goals, facilitated through the use of self-assessment, modelling, shaping and feedback.

The GIST programme emphasizes setting individual social competence goals that are personally and contextually relevant, realistic and measurable. The group as a whole follows the manualized curriculum; however each individual’s goals provide a path for that group member’s individualized treatment. Within the GIST programme, family/significant others as well as other group members also provide their observations and feedback regarding the individual’s potential goal areas. Group therapists guide the individual through the goal-setting process as needed.

(4) Skill mastery – The acquisition of new skills, social routines and compensatory techniques, facilitated through group interactive practise of new information and the use of behavioural learning strategies.

Functional skills are developed and practised through group problem-solving and in structured interactions completed within the group as a whole or in pairs. The sense of skill mastery appears to lead to improved social confidence and a willingness to apply these new skills in everyday life.

(5) Generalization – The application of knowledge and skills learned in the group to the individual’s daily life, facilitated through real-life group interactions, weekly homework, practise across environments, social problem-solving of real-world problems and involvement of support persons.

Family/significant others are asked to participate in a support person orientation session which takes place the first week of the group and a support person education and social problem-solving session which takes place mid-group. The family/significant others also participate in the celebration at the end of session 12, after which the group therapists meet with each group member and his/her support person to review progress and individual recommendations. Family involvement in the GIST programme is valued in promoting generalization; however, some group members may not have access to a family member/support person and may need prompting to think of another support person, such as a case manager or therapist.
It should be noted that the desire for social acceptance appears to be an underlying motivator driving participation, effort and success of those participating in the GIST programme. Baumeister and Leary [26] describe the need to belong as a fundamental human motivation, suggesting that 'human beings are fundamentally and pervasively motivated by a need to belong, that is, by a strong desire to form and maintain enduring interpersonal attachments'. The desire for social acceptance is considered to be a factor as group members advance through the sequence of phases as they progress through this model.

**Criteria for group participants**

The following criteria are regarded as basic requirements for participation in the GIST group:

- Medically stable;
- Functional memory/strategies for recall of basic information from session to session;
- Emotional regulation for group participation (able to take part in group safely without 1:1 supervision);
- Adequate receptive and expressive communication skills for group interaction; and
- 16 years of age and up (GIST could be adapted for younger population).

The authors have observed that the following factors, although not essential, tend to positively affect a group member’s potential for treatment success:

- At least 12 months post-injury (this allows people time to have experienced social successes and failures following the injury, providing greater potential for increased awareness and motivation to work on social skills goals);
- Family/significant other support person available;
- Some awareness of social competence challenges;
- Motivation to improve; and
- Ability to accept feedback.

**Group format**

GIST groups consist of six-to-eight group participants and two group therapists. Group participants receive the workbook and are asked to bring it to each session. There are 13 sessions, with two additional follow-up sessions which generally occur 1 and 3 months post-intervention, depending on the schedules of group members. During each of the 13 weekly sessions, key concepts from the previous session are reviewed, a new topic is discussed, strategies and skills are practised interactively and real-life social problems are addressed. Previously covered topics are integrated into each session through discussion and problem-solving to provide repetition and reinforcement of information. The 13 session topics are: Orientation Meeting, Skills of the Great Communicator, Self-Assessment and Goal Setting, Starting Conversations, Keeping Conversations Going and Using Feedback, Assertiveness and Solving Problems, Practise in the Community, Social Confidence through Positive Self Talk, Social Boundaries, Video Taping, Video Review, Conflict Resolution, Closure and Celebration. The two follow-up sessions are focused on reinforcing previously learned skills and behaviours, problem-solving any barriers that may have developed and setting new goals as needed.

Treatment sessions take place in a comfortable room, preferably with couches and casual seating, rather than office chairs. At least one session takes place in a community setting, such as a restaurant, in which skills can be practised. Each session has a 10–15 minute break, providing participants with an unstructured opportunity to socialize, as well as an opportunity to take a ‘mental break’.

Most sessions follow the following format:

- Reconnect;
- Review goals, progress, homework;
- Introduce a new topic;
- Break;
- Practise skills;
- Problem solve; and
- Assign new homework.

Sessions are usually 1.5 hours in length. Depending on the specific needs of the group participants, the length of each session and/or the number of sessions may be increased or decreased to meet the group’s needs. For example, each session can be extended over a 2-week period if needed to cover a topic in more detail or to allow for more repetition. Factors such as participants’ age, time since injury, severity of the injury and multiple diagnoses may call for adjustments in the curriculum.

**Application to other areas of treatment**

The GIST model was developed to address social competence; however, the model can also be applied to other areas of treatment for individuals with brain injury using the structured group therapy format. For example, the principles and format of the GIST programme have been applied to a health and wellness intervention and could be applied to other
areas such as anger management, parenting skills or marital relationship skills. The hierarchical structure and use of behavioural strategies in the GIST intervention, as well as individual goal-setting, facilitate successful learning of new information for individuals with TBI.

**Observations of GIST with military personnel post-TBI**

The GIST intervention has been used for groups of active duty military and veterans post-TBI in Colorado. Participants in these groups have included those with mild, moderate and severe TBI and have included blast injuries. These GIST military groups have been provided through a partnership between the GIST programme developers and Denver Options and funded through the Denver Options Operation TBI Freedom programme. Denver Options is a non-profit organization providing service delivery systems and case coordination for individuals with intellectual and developmental disabilities in Colorado.

Four treatment groups have been completed and an additional group is currently running. Data is being collected by the group therapists regarding participation, social competence self-ratings and goal-attainment scaling. Initial clinical observations indicate that participation in the GIST programme can improve specific social competence skills in active military personnel and veterans with TBI. Many of the goals and needs of these groups are similar to non-military GIST groups. However, there are several areas that seem to consistently stand out for this particular population. Most notably, military participants frequently describe a lack of interest in other individuals. In addition, military participants describe significant difficulty resolving interpersonal conflicts, especially with family. Sessions may need to be extended, allowing for additional discussion and social problem-solving, with additional emphasis on social initiation, development of friendships and conflict resolution. Use of the GIST intervention with military participants demonstrates the importance of applying GIST as a flexible treatment model, rather than a rigid curriculum, allowing therapists to use clinical judgement to adapt the programme as needed for a particular group.

**Conclusions**

The GIST for Social Competence programme is an evidence-based intervention for individuals with TBI addressing the emotional, cognitive and communicative aspects of social competence after brain injury. GIST was developed out of a clinical need to address the pervasive social problems which interfere with successful reintegration to work, family and community. Based on theoretically sound principles, as well as years of clinical implementation of the programme, GIST offers a structured, interactive group intervention, emphasizing real-world interactions and generalization of skills. This model can be applied to other treatment areas such as health and wellness, anger management, parenting and marital/family relationships. GIST can also be applied to specific groups, such as Military TBI populations. Although there is evidence to support the efficacy of this intervention, additional research is needed to evaluate the effectiveness of the intervention across a variety of settings with additional therapists trained in the GIST intervention.

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**Declaration of Interest**: The authors alone are responsible for the content and writing of this paper. The authors are the programme developers and own the copyright for *Group Interactive Structured Treatment – GIST: Social Competence* workbook. The workbook can be purchased upon request by other clinicians wishing to implement the GIST programme.
References