

Recovering social participation – experience with a relational group intervention for traumatic brain injury patients

Marjaana Raukola-Lindblom^{a,b,*}, Elina Vuorinen^c and Riitta Vartiainen^d

^a*Department of Psychology and Speech-Language Pathology, Faculty of Social Sciences, University of Turku, Finland*

^b*R-L Specialized Services Ltd., Turku, Finland*

^c*Neutera Neuropsychology and Therapy Services Vuorinen Ltd., Turku, Finland*

^d*Specialized Speech and Language Services Riitta Vartiainen Ltd., Helsinki, Finland*

Abstract.

BACKGROUND: Traumatic brain injuries often result in impaired social functioning that may cause uncertainty, isolation, and precipitation of significant stress in social situations. Involvement in directed group treatment helps participants to develop new capabilities for feeling relationally connected, improving verbal and nonverbal communication skills, as well as building the capacity for empathic intersubjectivity. We suggest that group intervention to improve communication and social skills may provide an efficient and effective way for a patient to return to successful social participation.

OBJECTIVE: The purpose of this paper is to describe and discuss the principles of a clinical group intervention for increasing the social participation of persons with traumatic brain injury.

METHODS: Since 2000, several intervention periods, each with 10–20 group meetings, including some individual sessions for guidance, have been carried out under our direction in Finland. The intervention periods include education, reflection, and practical experiential exercises and can be multidisciplinary with both speech-language pathologists and neuropsychologists providing oversight and direction. The main goal of the described group interventions is to support community participation and social reintegration. In this article, we describe guiding principles and provide examples of the clinical group interventions drawn from our experience.

CONCLUSION: As determined by clinical observations and patient reports, the group intervention for social participation has proven to be beneficial. The participants report gaining more understanding of and insight into social situations, nonverbal and verbal communication, as well as affective interactive experience. Practicing social skills in a group situation is inherently self-motivating and encourages a constructive, positive impetus toward greater social participation. Based on our experience with this approach, it appears that this experiential form of group intervention is an effective bridge between structured cognitive-communication rehabilitation and successful real-life social participation.

Keywords: Communication, social participation, traumatic brain injury, group treatment, rehabilitation

1. Introduction

Humans are inherently social beings and, as such, communication is vital to self-esteem, to staying connected with each other, and to being a contributing participant in social networks. Traumatic brain injuries (TBI) often result in significantly impaired social functioning (Struchen, 2005). Communication

*Address for correspondence: Marjaana Raukola-Lindblom, Department of Psychology and Speech-Language Pathology, Faculty of Social Sciences, University of Turku, Assistentinkatu 7, 20114 University of Turku, Finland. Tel.: +358 50 344 4343; E-mail: marjaana.raukola-lindblom@utu.fi; www.marjaana-raukola.com.

skills affect all interactions, including community integration and social participation and are constructed through a range of individual, cognitive, emotional, physical, self-regulatory, and contextual influences (Fig. 1) (MacDonald, 2017). Communication is also always a shared intersubjective experience (McGann, Werven & Douglas, 1997). Cognitive-communication impairment may be one of the most persistent and problematic long-term consequences of TBI, affecting social participation, self-esteem and quality of life (Elbourn, Togher, Kenny & Power, 2017). Cognitive-communication includes high-level verbal and written expression, discourse planning, auditory comprehension, information processing, reading comprehension, conversation, and social interaction pragmatics (Barwood & Murdoch, 2013; MacDonald, 2017). Impairments in executive functions, memory, and reasoning strongly affect communication skills (MacDonald, 2017). Cognitive, behavioral, and social communication changes

following TBI can be the direct result of the primary pathologic mechanism of injury. Examples of frequent cognitive and behavioral changes seen after TBI and the possible impact of such changes on social communication functioning are presented by Struchen (2005) in Table 1.

Brain injury can lead to increased stress related to the emotional consequences of trauma, loss, and changes in life circumstances (MacDonald, 2017). Stress is also associated with reduced cognitive resources and changes in emotion differentiation (Erbas et al., 2018). Impaired social functioning increases social uncertainty, social fears, and feelings of stress and inadequacy, which often lead to a decrease in friendships and social withdrawal. Ponsford, Kelly & Couchman (2014) studied self-concept and self-esteem after TBI, and the results indicate that people with TBI have lower self-concept and self-esteem. They also rate themselves as socially isolated and even felt alienated from their own families.

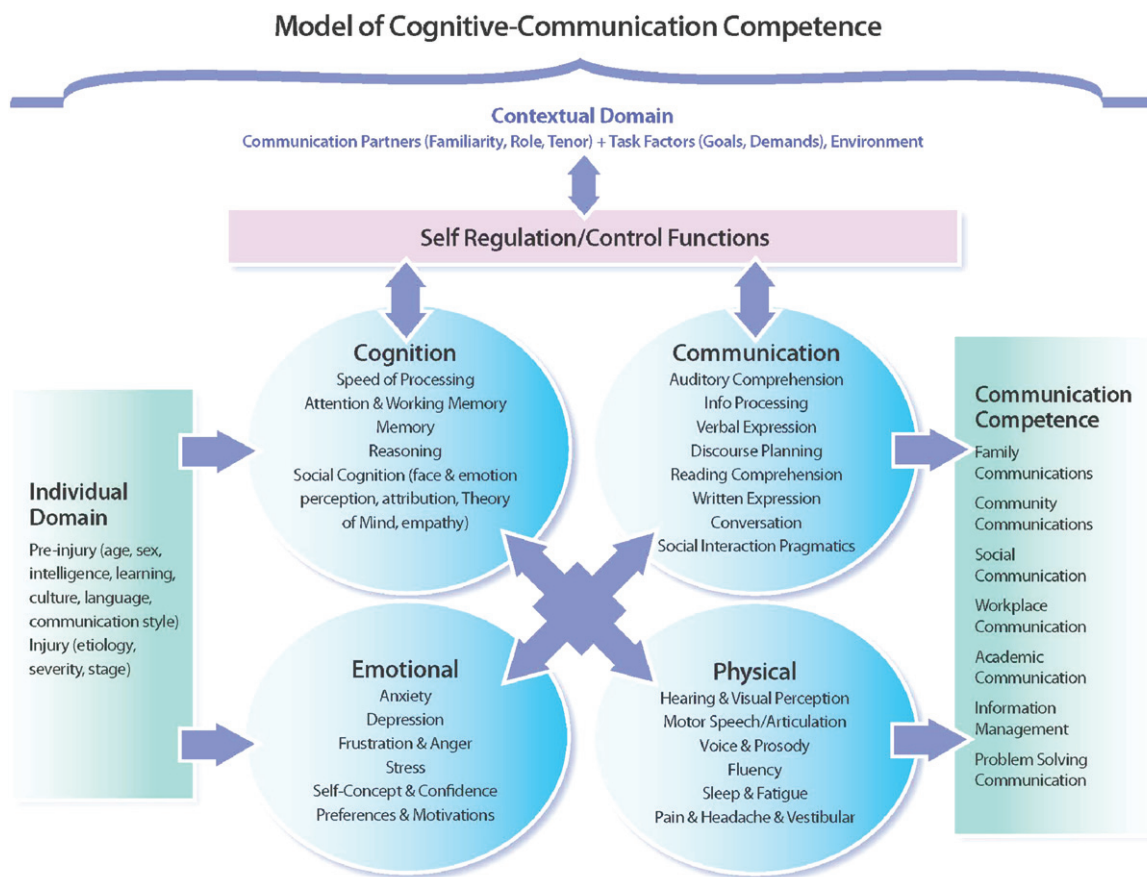


Fig. 1. MacDonald, S. (2017) Introducing the Model of Cognitive-Communication Competence: A model to guide evidence-based communication intervention after brain injury. *Brain Injury*. 31(13-14): 1760-1780.

Table 1

Examples of common cognitive/behavioral changes seen after traumatic brain injury (TBI), and the possible impact of such changes on social communication functioning (Struchen, 2005)

Cognitive/behavioral changes due to TBI	Possible impact on social communication abilities
Poor concentration	Difficulty maintaining a topic, difficulty keeping track of conversation in presence of distractions
Difficulty shifting attention	Difficulty switching topic, problems in shifting between speaker and listener roles
Slowed processing speed	Long pauses in speaking, slowed speaking rate, difficulty comprehending others when speaking at a normal rate
Poor immediate memory	Repeats self, loses track of conversation topic
Intrusions, susceptibility to interference	Mixes up instructions or messages, has difficulty staying on topic
Poor organization of learning/recall	Disorganized speech, rambling
Difficulty with integration	Difficulty reconciling conflicting verbal/nonverbal information
Reduced initiation	Reduced initiation of conversation, apparent lack of interest in others
Poor self-monitoring	Poor use of feedback, poor recognition of errors
Poor planning/organization	Poor sequencing in giving directions, poorly organized speech
Egocentricity	Interruptions, excessive talking, difficulty taking others' perspectives
Perseveration	Difficulty changing topics, stereotyped responses
Poor regulation of emotion/behavior	Unpredictable social behavior, inappropriate laughter, excessive expression of anger
Poor self-awareness	Described unrealistic goals of life situations, lack of credibility, poor use of compensatory strategies

People with TBI need to have rehabilitation efforts directed toward improvement in their social functioning to avoid withdrawal and to enable return to social participation. Previous studies suggest that the primary goals of TBI patient rehabilitation are to improve participation or reintegration into a community (e.g., McLean, Jarus, Hubley & Jongbloed, 2012, 2014). Overall, studies suggest that community integration is related to life satisfaction and reduced emotional distress (e.g., Williams, Rapport, Millis & Hanks, 2014). For these reasons, structuring group therapy toward enhancement of the ability for patients to successfully engage in relationships could provide an opportunity for them to recover the experiential skills involved in supporting meaningful connection with others. Based on our review of evidence in the literature and evidence-based treatment programs, interventions targeting social communication abilities have been subjects of great interest. Cicerone and colleagues' (2000, 2005, 2011), in three evidence-based review articles, recommend group intervention and intervention for social communication skills after TBI and include the following specific recommendations regarding treatment of social communication skills after TBI:

- Practice Standard: Specific intervention for functional communication deficits, including pragmatic conversation skills (Cicerone et al., 2000, 2005, 2011).
- Practice Opinion: Group-based interventions may be considered for remediation of social communication deficits (Cicerone et al., 2011).

In group interventions, peer support can help reduce stress in social situations and provide increased self-esteem. Group intervention may directly or indirectly improve individuals' psychosocial functioning by providing a supportive environment in which communication is encouraged and modeled by the group facilitator and perhaps, more importantly, by peers in the pragmatic experiential exchanges between participants. The interventions provide an opportunity for an extensive array of communicative partners and more natural contextual tasks, leading to an increased likelihood of generalization of treatment gains to everyday living. Group intervention is also a cost-effective way of providing rehabilitation. It is also known that rehabilitation may be successful even in the long term after TBI and regardless of the injury severity (Tsaousides & Gordon, 2009). The objective of this paper is to describe our experience and what we have learned during the course of the performance of therapeutic group intervention periods we have carried out in Finland since the beginning of 2000.

2. Group intervention for traumatic brain injury patients in Finland

This article provides a description of the clinical group intervention periods for increasing the social participation of people with TBI, and presents an account of our collective clinical observations and patient experience in Finland. Social communication is not only a cognitive skill but is also a way of existing

in relation to others; therefore social communication skills can be learned best in real-world, experiential, meaningful interaction with others. McGann et al. (1997) created a model for social communication group interventions for TBI and suggest that social competence training is best achieved through five phases: group discussion about healthy communication and principles for creating a safe and respectful environment for all participants, completion of a communication skills questionnaire, forming communication goals, role-playing and simulation activities, and generalization of goals. Each group member assumes an essential role in the discussions and planning of activities and each member's comments are taken seriously and discussed. Our program of interventions follows this model of the social competence training phases and the basic ideas behind them.

The main goal of our group interventions is to support participation and social integration through the development of effective communication skills. The sub-goals are to:

- provide information on typical cognitive-communication deficits
- achieve better skills to monitor oneself in social interaction
- find and learn compensatory strategies for communication situations
- achieve better conversation skills
- support self-esteem
- offer peer-support
- prevent loneliness, isolation and social withdrawal

Since 2000, several group intervention periods for TBI patients have been carried out in affiliation with outpatient rehabilitation units with TBI expertise in Finland. The authors of this article, which include two speech pathologists (MR-L and VR) and a neuropsychologist (VE), have extensive experience working with TBI patients and specialize in cognitive and social communication disorders after TBI. Understanding cognitive-communicative disorders is an essential component of goal setting and therapy planning in group interventions. Therefore it is necessary to identify each participants' social communication areas of challenge that are limiting community integration and satisfaction with social participation. From the therapists' and group facilitators' perspectives, it is essential to understand the types of communication problems that persons with post-acute TBI can experience and to gain

information about how insightful they are regarding the nature and impact of any impairment of their social communication skills (Dahlberg et al., 2006). It is crucial to understand the patient's own perspective and their understanding of the problems they may be experiencing in order to engage them in the treatment process and to harness their motivation for the group intervention treatment program (Douglas, 2015). For example, the La Trobe Communication Questionnaire (Douglas et al., 2000; Finnish translation Vartiainen & Raukola-Lindblom, 2014) can be used to evaluate communicative abilities and gather information on individual experiences with real-life social situations. The questionnaire consists of 30 items that reflect behaviors frequently observed in the communication exchanges of individuals with TBI.

2.1. Participants in group intervention

The participants are referred to our group interventions through the public healthcare system. In Finland, public healthcare, social insurance, and insurance companies fund rehabilitation for brain injury patients. Brain injuries may be from mild to severe, but the participants are usually functioning independently in daily living; they may be working full- or part-time, studying, or on sick-leave or retired. Most patients also participate in individual rehabilitation, for example, neuropsychological rehabilitation. We have certain 'floating' criteria for participant inclusion depending on the situations and challenges of currently available group members and their corresponding goals so that there can be a degree of overlap and alignment between the goals and general life context of individual group members that will guide the setting of overall group treatment goals. For example, some groups were targeted at young adults to support their process of establishing independent lives while meeting their socialization needs, and other groups were targeted at adults needing improved communication skills to support returning to work or studies. As each group is uniquely constituted, it is important for the clinicians to decide who properly fits into a particular group to ensure they function well in terms of the development of a supportive and shared treatment milieu in which each member feels comfortable participating. The group members and their needs define the sub-goals and the methods used for each intervention period. The age of group members varies from 18 to 60 years, and the time since injury also varies. The level of participants' cognitive-communication disorders varies from mild

to moderate as determined by speech pathologists or neuropsychologists. The timing for group intervention is vital: participants need to be ready to meet the challenges in social communication with the group and they also need to be motivated to engage in different group activities and orient themselves toward recovery. Sometimes a different group intervention period is recommended if the participant is identified to be in need of further practice and treatment.

2.2. Program content in group intervention

Based on the limitations of the available funding, we usually carry out group intervention periods with 10 to 20 group meetings with a few individual meetings for guidance. These group meetings can be multidisciplinary, with speech-language pathologists and neuropsychologists and can include education, reflection, and practice. We move forward with group activities based on the needs of the group members (Fig. 2).

We have benefited from McGann et al.'s (1997) ideas of starting the group meetings with discussions of what is healthy communication and move on to the transformations the group members have experienced after TBI. Figure 3 is an example of members' perceptions of healthy communication created in group discussions.

The participants have described many challenges after TBI, including:

- feeling uncertain in social interactions
- lack of control in social situations
- stress in new situations and when interacting with new people
- forgetting what they wanted to say in conversation
- problems in turn-taking in conversation
- slowness in language processing and problems with language comprehension
- problems making small talk
- problems using and understanding nonverbal communication and humor

The challenges, as well as internal resources, perceptions, opinions, and, importantly, concerns regarding self-disclosure, are discussed in group meetings. Participants often state that they have felt very alone with their perceptions of their challenges, and peer-support may be a major stress relief for them. In the early phase of the group period, participants have individual meetings with the therapists and create their individual goals for social

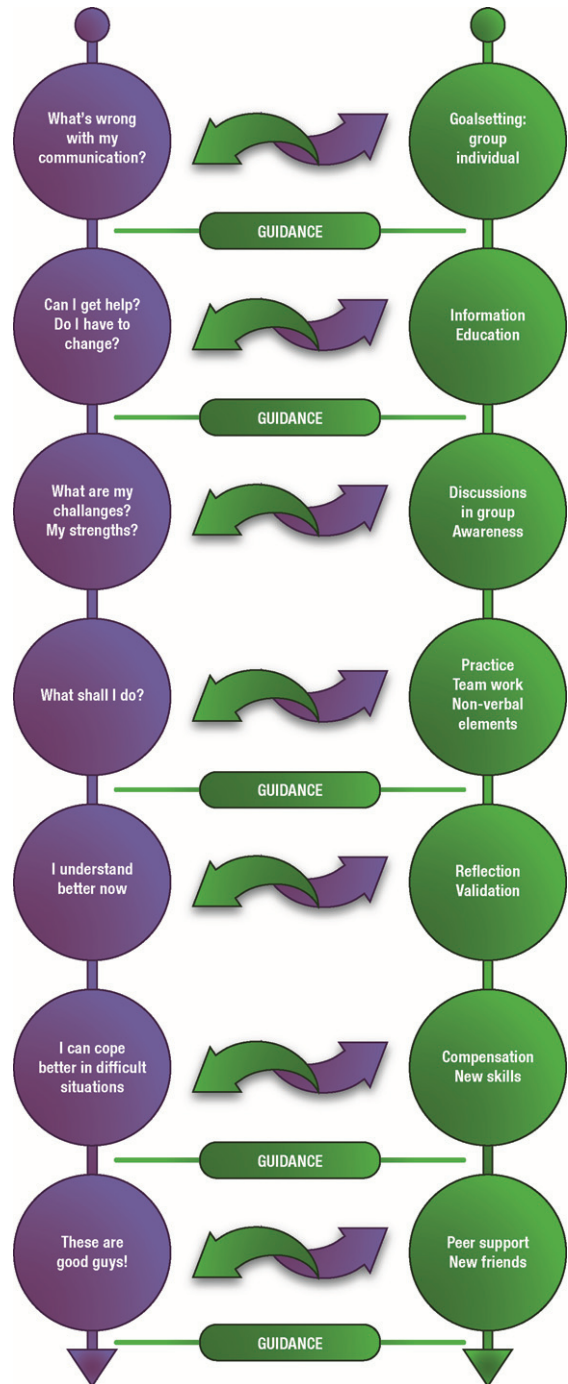


Fig. 2. The group process from the perspective of group members' needs.

communication. They can also reflect the emotions and perceptions experienced in the group with the therapist. We use individually chosen methods to create goals. Figure 4 is an example of one participant's perception of her brain injury and the problems it has

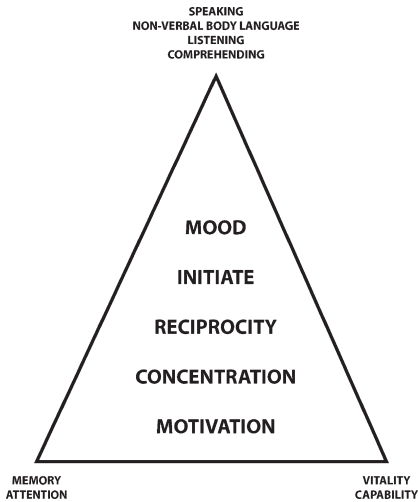


Fig. 3. An example of the perception of healthy communication created in group discussions.



Fig. 5. An example of one participant's goal setting.

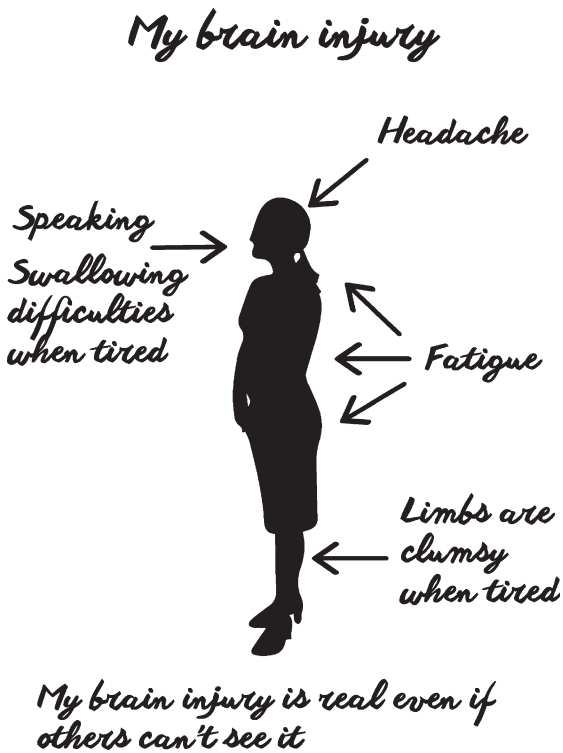


Fig. 4. An example of one participant's perception of her brain injury.

caused, and Fig. 5 is an example of her subsequent goal-setting.

The various aspects of nonverbal communication, peer-to-peer conversations, and seeking compensatory strategies for dealing with challenging social

Table 2
An example of theme-related discussion in a group

What brings happiness?	Challenges/obstacles	My resources
Family	Lack of motivation	New ideas
Pets	Impatience	Creativity
Hobbies	Don't have courage	Positivity
Exercise	Lack of money	Assertiveness
Helping others	Dependency	Having opinions
Handiwork	Loneliness	Resilience
Composing music	Staying in my budget	
Home	Stress	
Health	Pain	

situations are also included in group activities. The patients participate both as speakers and listeners while the therapists provide feedback and encouragement for group members. Role-playing and video feedback can also be used in group activities to demonstrate communication skills in different situations. The activities and discussions in the group are usually based around different themes, such as emotion, communication, art, music, or dreams. An example of a theme-related discussion can be seen in Table 2 and Fig. 6.

Our groups also go on community field trips to art galleries, cafeterias, or other socially active places together with the therapists. Those trips are a significant part of the process of getting out into the community and experiencing new things, in addition to providing conversational subject matter. Group members enjoy these field trips and they often remember them well, even years later. The trips are also very informative for therapists providing the opportunity to observe the participants interacting in

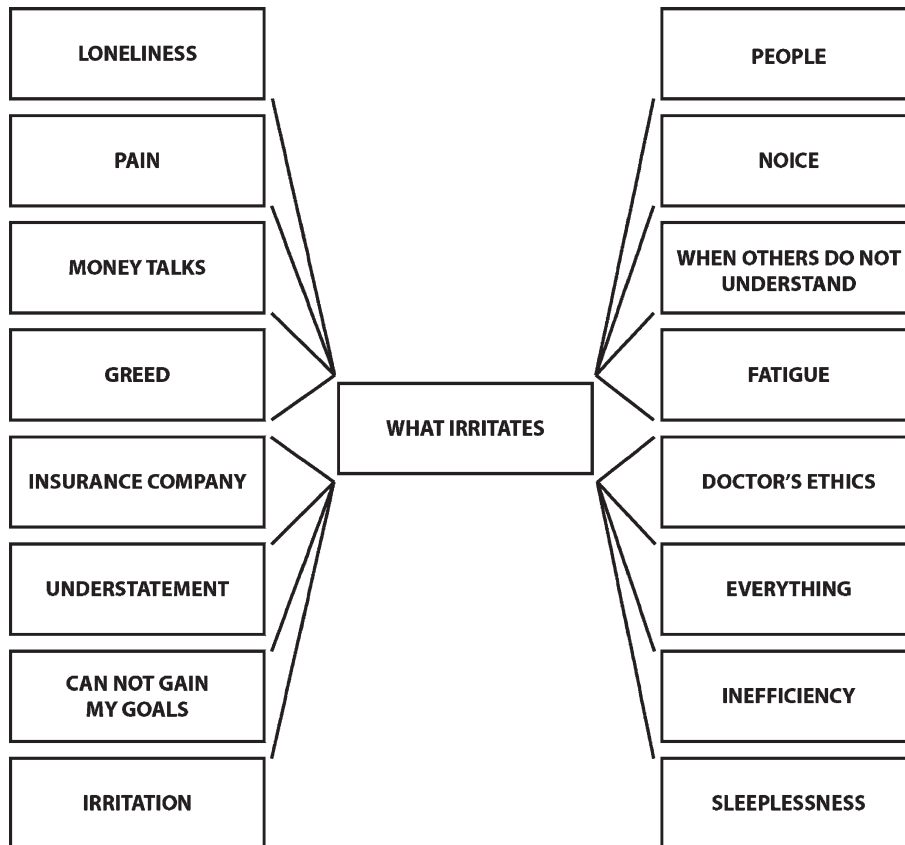


Fig. 6. An example of theme-related discussion in the group.

atypical community-based environment, given that communication and social behavior may look very different in different situations, and each community outing experience may then stimulate new ideas for future group activities involving real-life experiences in the community.

3. Clinical observations and patient reports from the group intervention periods

At the beginning of the group period, the shared sub-goals for the group and the participants' individual goals are set and documented. These two levels of goals are taken into consideration throughout the intervention period, during which clinical observations are documented. At the end of the intervention period, the perceived experiences and subjective benefits reported are collected individually from participants. The authors note that clinical observations and patient reports are consistent with the goals described earlier.

3.1. Clinical observations

According to our clinical observations, participants have gained many benefits through participation in this form of treatment both in skills used in communication and with respect to insight gained regarding social communication. The main gains in conversation skills after the group intervention period relate to the increased quantity of turn-taking and comments in group discussions, increased coherence in the reporting of narratives and in associated discussions, increased relation to and focus on the topic during communication, and improved identification and understanding of the various aspects of nonverbal communication. The benefits of group intervention include increased self-knowledge and courage to be open and to express oneself in conversation. Also, self-instillation of hope, emotional support, catharsis, and universality are noted benefits. Hope creates a recognition that that life can be different after injury and yet still satisfying, meaningful and worthwhile. Given that each group member is dealing with many

similar problems, participants can make sense of their own experiences by sharing them in a safe, therapeutic, and supportive environment through interaction with other group members, thus learning how empathy can be both expressed toward another who is expressing familiar experiences and challenges, as well as received from others who are dealing with similar frustrations and struggles.

Some participants have become friends and have carried on meeting each other after the group treatment period, and still others have continued attending various social activities together. In these cases, loneliness and social withdrawal may be addressed and prevented through continuation of mutually supportive and valued relationships established in the context of the group participation.

3.2. Patient reports

The patients self-report positive benefits in forming friendships with other group members and in social communication, including increased encouragement and recognition of the benefits of positive relations developed through social participation, the ability to come up with ideas for new enjoyable group activities, and the appreciation of the value of compensatory skills and strategies for encountering and surviving different social situations that previously had been consistently avoided. They also report decreased stress in social situations, improved self-confidence and decreased loneliness and negative feelings associated with being isolated from social contact with others. The participants' reported experience of the group intervention period thus appears to be perceived as a significant part of recovery from the pervasive social isolation and negative affective sequelae of TBI.

Some participants have reported relatively few benefits, but, at minimum, peer support has always been mentioned as a positive experience. Most often, participants listing few benefits may have had poor insight and difficulty with self-awareness and acceptance of their cognitive-communication deficits and thus encountered problems with setting realistic goals. The timing of the group intervention period may not have been optimal for them, or the group may not have been adequately put together so as to engage them in the therapeutic process and to support their recovery. In these cases, another group intervention period has been sometimes recommended.

Some participants have increased their social participation even during the course of the group

intervention period. Some participants who had been previously isolated at home, have organized and gone out on various recreational community outings like bowling or miniature golf either independently or together with other members of their treatment group during holiday breaks in rehabilitation. Some participants have developed friendships during the treatment period and have helped each other with different tasks such as babysitting or walking dogs. Some group members have spontaneously utilized social media to create closed Facebook groups or WhatsApp groups for sharing information, communicating about and sharing different experiences, and for keeping in contact with each other.

4. Discussion

4.1. Limitations

The limitation of these interventions is that the findings reported here are based only on our documented clinical observations and patient reports which, to date, have not been systematically quantitated and analyzed. However, the preliminary results of these kinds of group intervention periods are encouraging, and the documented benefits for the participants resulting from their participation have been quite remarkable in our opinion as supported by positive informal reports from the vast majority of participants. Some of the group members have also had other rehabilitation treatment, usually individual neuropsychological rehabilitation, during the group period. In these cases, it is not possible to determine confidently which rehabilitation intervention was associated with the greatest benefit. There is still a great need to systematically gather more qualitative data using available subjective reporting questionnaires as well as, where appropriate and feasible, collect quantitative evidence from controlled experimental studies.

4.2. Benefits and generalization of goals

It seems that group intervention is a crucial link between cognitive-communication rehabilitation and real life experience. The group allows peer support and a broader understanding and development of insight into altered life after a TBI. It seems necessary for therapists or group facilitators to intervene to help participants to confidently move toward exploration of new experiences, to start dreaming of what

still might be possible in terms of meaningful experience and interpersonal relationships, and to recover a positive attitude toward social participation.

It is suggested in our review of the available literature that communication deficits may hinder self-esteem, and reduced self-esteem may then have a negative significant influence on motivation for social participation and return to the meaningful sociality that supports self-esteem. The clinical observations and participant self-reports suggest that the group intervention period described here may increase feelings of self-worth and encourage social interaction. This finding supports previous reviews of studies that report positive changes in interpersonal activities and improved self-awareness (Cicerone, 2004). These results may reduce stress related to social participation, which may have a substantial beneficial effect on quality of life. Since social isolation is associated with a significant decrease in life satisfaction and subjective well-being, inadequate attention to and management of communication disorders may be a significant barrier to social reintegration (Dahlberg et al., 2006).

4.3. Importance of the selection of participants and of the role of facilitator

The length of time since injury and injury severity do not appear to have a significant influence on the effectiveness of the group treatment period for social communication deficits. In fact, the most crucial factor seems to be the timing of the group treatment period and the general readiness of the person to re-engage in social activity in order to ensure the participant is motivated to become involved in group treatment and is prepared to meet his or her challenges in social communication. Therefore, based on our experience, the selection and matching together of the participants into a cohesive therapeutic group is a critical procedure for a successful group intervention experience.

The facilitators are responsible for the selection of group members and for supporting and maintaining a therapeutic environment during group activities. The facilitators also organize group activities and coordinate and monitor discussions that will help participants to become aware of and explore communication in a constructive manner. Each facilitator is responsible for the group process and needs to have specialized experience with individuals with cognitive and communication deficits after TBI, and also needs to be sensitive and flexible in the fulfillment

of his or her role in guiding the group so as to maximize the positive impact of the treatment experience on each individual participant.

5. Conclusion

Our clinical findings and experience suggest that group intervention is an effective and indispensable way to increase social communication competence and quality of life after TBI. The findings, based on our experience with the group interventions for TBI patients over several years, strongly suggest that researchers should find ways to adequately measure these effects, to document outcomes of treatment and to enable more evidence-based similar interventions to improve social communication skills. Our findings suggest that we also need more qualitative measures to capture the positive effects subjectively reported by participants that we have described in this article and more research is required to document and characterize the impact of group interventions focusing on communication and social participation after TBI.

Acknowledgments

We want to acknowledge the participants in our group intervention programs and the healthcare professionals who have affirmed the importance of rehabilitation intervention for complications impacting social participation. We also want to acknowledge Finnish public health care, social insurance, and the insurance companies for funding these intervention programs for people with TBI.

Conflict of interest

None to declare.

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