

Brain Injury Rehabilitation: Activity Based and Thematic Group Treatment

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For rehabilitation to prepare a person for independence, social integration, and some degree of transfer of training, it is necessary to provide those who are in treatment with dynamic and social therapeutic practice experiences. In acute brain injury rehabilitation, these issues have traditionally been addressed on an individual basis. However, in postacute settings, an interpersonal group format can be effectively implemented (Delmonico, Hanley-Peterson, & Englander, 1998). Group based interventions may be uniquely suited for these tasks, and have tended to play an important role in the treatment of traumatic brain injury (TBI) and other rehabilitation populations. In effect, just as school systems have discovered that classes are an effective way to educate children, rehabilitation programs are using groups to assist individuals learning to adapt to residual impairments resulting from TBI. An additional benefit that occurs in groups is the peer support which can enhance coping (Hibbard, Cantor, Rosenthal et al., 2002).

Therapists rehabilitating persons with TBI have readily used an activity group versus verbal psychotherapy groups to accomplish client specific goals. Many authors (Yolam, 1975, 1983; de Mare and Kreeger, 1974; Greenberg-Edelstein, 1986; Duncomb and Howe, 1985) have distinguished between a group that is primarily verbal psychotherapy in orientation to one that is primarily task related. In verbal psychotherapy, member interaction is supported to resolve interpersonal issues among members. The primary emphasis is on group process, and verbal interchange is the primary means of interaction (Borg and Bruce, 1991).

In a task group, interaction is encouraged so that the group might accomplish an identified task (e.g., to solve a group problem) or provide a service. In addition, the emphasis in the task group is the achievement of an identified end product that may include specific decisions, recommendations or tangible results. To illustrate, a group-based intervention for persons with TBI may involve a cooperative effort to prepare and serve a meal. In this case, the end product (the meal) is important, but so is the process of socialization that occurs among the patient group (Borg and Bruce, 1991), as well as the planning and implementation. Other processes that occur among group members throughout the course of meal preparation are problem solving, decision-making and cooperation. Organization, planning and follow-through are also addressed as this group works together to determine events for the next session with the therapist, who is the facilitator of

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this process. The outcome goals established for and by the participants, along with the specific activities or tasks, depend on the nature of the participants, the goals of treatment, and the theoretical beliefs of the therapist or how that person feels the goals can best be achieved (Borg and Bruce, 1991).

Summary of Benefits from the use of Group Interventions

Group interventions can benefit the rehabilitation of individuals with brain injury in a number of ways:

1. Groups present in vivo opportunities in interpersonal contexts to overcome deficient social skills (Butler and Namerow, 1988) and elicit behaviors that are not apparent in individual structured sessions, due to distractions and a level of unpredictability (Deaton, 1991), as well as the difficulty in processing the increased flow of information. Only when revealed can these cognitive impairments be effectively treated.

2. Groups are particularly suited to retrain and rehabilitate, to the degree that they can provide unique social and functional learning experiences. Groups allow individuals to experience safe interpersonal exchanges with their peers enabling the provision of social support for the participant (Sohlberg and Mateer, 1989). This format can help clinicians assess individuals' social skills and ability to function in dynamic environments along with providing unique information that could not be attained by other assessment procedures. For example, social pragmatics, listener empathy, eye contact, turn taking, and responding appropriately to feedback from peers can all be assessed in a group format.

3. Managed care and insurers reimbursing for certain therapy services require less expensive, yet just as effective, treatments. Group format cognitive rehabilitation has typically been utilized to provide cost-effective and intensive rehabilitation in specific areas of deficit such as attention, memory, and problem solving (Mateer, Sohlberg, and Crinean, 1987) allowing for the provision of a more economical staff to client ratio (Sohlberg and Mateer, 1989). Perhaps as more research literature supports group based interventions, insurer's will be more inclined to cover these services.

4. Feedback from peers, may be more acceptable and appear more valid than that coming from a therapist. Thus, persons with brain injury seem to gain a greater accuracy of self-perceptions through feedback by group participants including individual strengths and weaknesses (Sohlberg and Mateer, 1989). Schlund and Pace (1999) designed a study examining the importance of feedback as a therapeutic technique; more specifically, the study investigated the effects of feedback on reducing the maladaptive

behavior exhibited by three persons with TBI attending a medical day program. Results from the study indicated that the introduction of systematic feedback resulted in general reduction in the variability and frequency of maladaptive behavior. Schlund and Pace (1999) noted that though generalizations from this study should be made with caution, feedback might be a worthwhile economical approach in conjunction with other techniques.

5. Groups enable modeling (of facilitators and participants) by members and reinforcement of appropriate behavior in a social setting, which is vicariously learned from the observation of individuals with similar impairments.

6. Individuals may identify with other group participants, who suffer from similar impairments, diminishing feelings of being alone in the world (Sohlberg & Mateer, 1989; Wilson and Moffat, 1992). This can also be an opportunity for these participants to compare their experiences and solutions to problems they experience. Additionally, people may be more able to observe and understand their impairments when they observe peers with these same issues.

7. Group therapy allows skills acquired in individual sessions to be carried over into a more real life setting (given that people who work or go to school often have to communicate and function in groups); therefore, group therapy provides circumstances, in which skills can be practiced, and be more easily generalized outside of therapy.

8. Group therapies include learning and behavioral practice in an interactive environment, and the opportunity for over-learning through multiple practice trials with different partners (Sohlberg & Mateer, 1989; Wilson & Moffat, 1992). Given the frequency of social and behavioral problems after brain injury, frequent structured practice of social skills is necessary for efficient community integration.

Group Membership

Making the appropriate choice of individuals for group membership can be a difficult task. Deaton (1991) provides a number of suggestions regarding the inclusion of members into certain group therapies. Ideally, group members should have similar areas of weakness, so that specific areas of deficit may be addressed as a group. When participants are of approximately the same level of functioning (cognitive, physical, or emotional) and relatively high functioning, one facilitator may be sufficient, however when the converse is true of participants who have behavioral problems more facilitators may be necessary. Deaton (1991) suggests that given the frequency of behavioral problems

after brain injury, group therapy may be a particularly beneficial intervention. Lastly, accommodations should be made for group members, who have difficulty with verbal expressions, in order to minimize his/her level of frustration. Expression could be done via sign language, alphabet boards or written communication.

Varying purposes for the Use of Group Interventions

Psychosocial/Psychoeducational Group: Brain injury survivors continue to experience long term psychosocial issues related to loss of self image, role and social function (McAllister, 1997; Morton & Wehman, 1995; Vandiver & Christofero-Snyder, 2000). Psychosocial groups can be helpful by providing emotional support, a place to process feelings and receive feedback, education on brain injury, coping, and sense of personal destiny and hope (Armengol, 1999). Vandiver et al (2000) found that psychosocial rehabilitation can significantly increase brain injury survivors sense of control and empowerment. Some research suggests that while group therapy can be helpful with neurologically impaired individuals that there are certain essential elements which need to be part of the group. Forssman-Falck and colleagues (1989) suggest that there must be a frame of reference for understanding the individual's behavior within the constraints of the injury and there should be a practice theory at work that is consistent with the therapist's view of behavior.

Orientation Group: Orientation groups have been used for persons who are confused and disoriented, yet who have some ability to learn through repetition and practice. These groups typically begin each session by reviewing orientation information and having participants answer questions pertaining to this information. All clients in this group have day timers that are reviewed so that participants always have updated schedules, medication lists and appointments. Members of the group are encouraged to use cues that will help orient them (Corrigan, Arnett, Hovek, and Jackson, 1985; Deaton, 1991). Cognitive exercises in this group include many prospective memory tasks, current events topics presented by participants and the development of a personal timeline from birth to present. Some participants find this helpful to their development of perspective, insight, and life planning.

Memory Group: Deficits in memory and new learning skills are common following brain injury. Persons may find they cannot recall information from one moment to the next or may only be able to remember remote events that are significant in their lives. Goals for memory groups include development and use of memory strategies including memory games, tests, and the use

of external aids, homework assignments, and identification of memory difficulties. Barker-Collo (2000) demonstrated that a group of brain injury patients (primarily TBI and CVA) were very satisfied with a memory group format and had statistically significant gains in functional memory after an average of only seven group sessions.

Recommendations for Thematic Group Interventions

Creative group therapy is designed to restore the cognitive, physical, and social functioning of its members, while, at the same time, furthering individual interests and hobbies of its participants. Group sessions have currently focused on improving one area of impairment such as social skills, orientation, and memory. However, therapists and staff members working to rehabilitate persons with TBI are creatively searching for ways to make group therapy a more real life experience and enable the dynamics of a session to treat a number of problem areas. For instance, some brain injury programs have gardening, woodworking, photography, computer, craft, and art groups. In any of these groups, participants may be asked to plan, organize, sequence, communicate, and retain information relevant to group theme activities. Participants can have individual goals, and may even be asked to communicate those goals to the group on a regular basis. Some have suggested that retraining people to function socially and in groups may be the only true way to insure post rehabilitation social integration. Lastly, without participant interest, stimulation, enthusiasm, participation, and follow through, progress will likely be limited. Examples of thematic group sessions that are used in certain creative rehabilitative programs are:

Vocational Training Group: A more recent group therapy, which focuses on real world outcomes and carrying over of skills acquired in individualistic therapy, is vocational training after TBI. The purpose of this group is to develop cognitive training procedures specifically designed for individuals, who wish to return to a working environment. Within this group members are taught thinking skills such as problem solving, concentration/attention, decision-making, social cognition and non-verbal perception. Interviewing skills and filling out mock job applications may also be taught and practiced. Parente and Stapleton (1999) created a pilot study to evaluate the effectiveness of the thinking skills training as a precursor to vocational placement. Their experience has been that the vocational group-training model provides an efficient and cost effective treatment for persons with TBI.

Cognitive Skills Group: Characteristics of a cognitive skills group may include the improvement of orientation, the use of compensatory strategies, practicing communication skills and problem solving, as well as discussing/modeling the ability to work collaboratively with others. Through the use of these skills, the persons begin to observe their behavior in a systematic way becoming more realistic about their potential strengths and limitations (Prigatano, 1999). Additionally, the therapist must make known to the individual that progress is due to the cognitive retraining, so that the proper attribution is made. This group meets daily in the facility, though it may also venture into the community at times. In addition to cognitive skills that are practiced as a group and in subgroups (that may be in the form of

games, pantomimes, etc.), communication and social skills involving initiating conversations, turn taking, eye contact, and awareness of others are a focus of group therapy. Some participants with behavioral problems may have nonverbal signals/feedback, which they receive from the facilitators.

Expressive Art Group: An expressive art therapy group may begin each week with participants presenting homework projects (a prospective memory task) that involve an artistic creation related to their goals or feelings, and discuss the projects in positive terms. The group may break into smaller groups so that the individuals can work collaboratively on a craft or artistic task. Each week there are brainstorming sessions regarding art projects. The activities of this group can vary dramatically in that during the holidays they may sketch and paint a holiday season on the wall, decorate Christmas trees, jack-o-lanterns, make gifts/collages/bead bracelets/decorations, paint scenes on store windows, finger paint, write and perform poetry, songs, or engage in some other creative endeavor.

Sharing Our Stories Group: The sharing of both life and traumatic stories works on verbal and written communication. In addition, it also allows people to process their feelings regarding their accident, injuries, and life changes. Participants may talk as well as narrate their lives and prepare an autobiography for an in-house flier/publication, which can be distributed. Those, who are interested and able to share their stories (about TBI, drinking and driving, bicycle safety, etc.), may also perform a public service by speaking at local schools and hospitals.

Woodworking Group: This thematic and activity based group is popular with the TBI demographic and involves hands-on learning producing tangible products and results. Projects produced in this group include bird and bat houses, mailboxes, benches, etc. Cognitively, people work on planning projects, sequencing behaviors, attention to details, staying on-task, and memory. Physically, people in this group work on bilateral coordination, gross and fine motor skills, strength, stamina, static and dynamic balance, and improved insight into physical strengths and limitations, particularly with regard to functional activities. Because this group involves the use of tools and may involve some risk, the selection of participants and having the appropriate participant-facilitator ratio are extremely important. It can be helpful to pair up participants at times and to display finished projects.

Independent Living Skills Group: A broad range of life skills can be taught in an independent living skills group, while incorporating the practice of many cognitive skills, such as memory (declarative and procedural) for tasks, planning (of meals, chores, projects, outings, and a budget), organization (of drawers, cabinets, clothing, and medications), and communication. Ideally, the group practices the skills in a setting mimicking a household, and then in an actual household. Each participant is usually given a mock checkbook and a list of weekly expenses by which they can balance their finances. The group sometimes goes into the community, grocery shopping, to the library, and practices using public transportation.

Gardening Group: Though seasonal, a gardening group allows participants to work on a wide range of skills. These may include memory, planning, sequencing, mathematics, fine and gross motor coordination, manual dexterity, bilateral integrated movement, and balance. Participants plan the garden (using

parameters like budget, space, growing season) and start the seeds, while in the clinic. Next, participants spend a significant amount of time outdoors preparing soil, transplanting plants, and maintaining the garden. The facilitator not only needs to have some knowledge of gardening, but must plan activities and pair-up participants so that people can work on tasks relevant to their areas of need.

Current Events Group: Participants are given the prospective memory task of bringing in a current events article or a summary they have written based on news heard on radio or television. This group not only helps people become and stay oriented and abreast of local and other events, but allows them to work on their reading and listening comprehension, organizational, presentational, and social skills. It also appears to enhance the participants self esteem, cultivate an interest in the world around them, and keeps them informed.

Conclusion

Group based therapies can be an effective way to treat brain injury related symptoms. Parente and Stapleton (1999) demonstrated the group therapy model as both effective and cost efficient, when dealing with brain injury survivors working toward the goal of re-employment. However, outcome research on the effectiveness of group treatment, in general, for TBI survivors is extremely limited. Though the limitations in outcome literature are to be expected due to the lack of random assignment of patients in treatment, further research should examine global outcomes that are necessitated by the multidisciplinary and comprehensive nature of post-acute rehabilitation (Evans and Ruff, 1992).

Groups seem to address different needs and be most appropriate at varying stages in treatment than individual therapies. In addition to verbal interactions between participants, groups are able to encompass numerous activities, which are of a high degree of interest to participants (i.e. gardening, automotive, etc.). The heightened enthusiasm may ultimately promote participation and motivation, which are key aspects to the success of any program (Parente and Stapleton, 1999). Also, it is conceivable that transfer or generalization of training would occur, to the degree that the clinical situations or experiences in the respective groups mimic community situations. With regard to these issues, group based treatments are potentially a very effective modality, yet, without examination, the true value remains undetermined.

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