International Handbook of Occupational Therapy Interventions

Chapter 45
Conducting an Intervention Program Mediated by Recreational Activities and Socialization in Groups for Clients with Alzheimer's Disease

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Our research group has demonstrated behavioral, cognitive, and functional gains in outpatients with Alzheimer's disease who participated in interventions mediated by recreational and occupational activities.

Abstract Interventions with recreational activities (games and art therapies) are frequently offered to people with dementia in nursing homes or day-care centers. Our group has demonstrated behavioral and, to a lesser extent, cognitive and functional gains in patients treated with recreational-occupational activities when compared to patients undergoing other kinds of cognitive treatment or to controls receiving only routine care. Patients recruited from the Alzheimer Assessment Unit of our center were divided into groups of four clients. The training involved fifteen 3-hour sessions.

Treatment comprised an orientation task, recreational activities (conversation, music listening, party games, collage, and games with balls, clubs, cones, and hopping) and occupational activities of daily living (setting and clearing the table, preparing tea or coffee, washing hands and dishes). Caregivers received educational and psychological support.

While our studies clearly have some limitations (above all the lack of randomization), we have found that the literature, coupled with our findings, supports the notion that a group activity program, based mainly on recreational and occupational activities, can achieve improvement in Alzheimer's disease patients, above all behaviorally.

Keywords Alzheimer's disease • Recreational therapy

Background and Definitions

Interventions mediated by recreational activities, such as games and art therapies involving music, dance, and art, are frequently offered to people with dementia and are useful to ameliorate mood and avoid social isolation in nursing homes or day-care centers.

I. Söderback (ed.), *International Handbook of Occupational Therapy Interventions*,
DOI: 10.1007/978-0-387-75424-6_45, © Springer Science+Business Media, LLC 2009

The primary purposes of using recreational activities, according to the guidelines of American Therapeutic Recreation Association (ATRA) (2008), are to restore, remediate, or rehabilitate function in order to improve functioning and independence, and reduce or eliminate the effects of illness or disability.

Activity is a basic human need expressed in leisure and work pursuits. Unfortunately, dementia leads to boredom and isolation due to a low rate of activity participation, resulting in agitated or passive behaviors, and functional loss.

Recreational services enable recreational resources aimed at improving clients' health and well-being (Fitzsimmons, 2003). Despite their wide use, few controlled studies demonstrate the efficacy of interventions mediated by recreational activities that decrease behavioral problems, improve mood, and increase socialization (Gerber et al., 1991; Karlsson et al., 1988; Rovner et al., 1996).

Teri et al. (1992) and Teri (1994), have developed a protocol that is based on behavior psychotherapy and includes interventions aimed at increasing clients' participation in pleasant activities. This protocol improves clients' and caregivers' mood.

Purpose

The aims of interventions mediated by recreational, personal, and interpersonal activities of daily living (ADL), in which outpatients with Alzheimer's disease participate, are (1) to support the maintenance of ADL, (2) to improve the clients' well-being, (3) to reduce behavioral disturbances, and (4) to favor socialization.

Methods

Candidates for the Intervention

Clients can participate in the intervention program mediated by recreational activities and socialization in a group when the *inclusion criteria* are (1) a diagnosis of Alzheimer's disease [according to the National Institute of Neurological and Communicative Disorders and Stroke and the Alzheimer Disease and Related Disorders Association (now known as the Alzheimer's Association (NINCDS-ADRDA)] (McKhann et al., 1984), (2) with or without associated cerebrovascular lesions, and (3) mild or moderate cognitive impairment between 0.5 and 2 on the clinical dementia rating (CDR) assessment (Hughes and Berg, 1982).

Clients are ineligible for participation when the *exclusion criteria* are (1) memory dysfunction (Mini-Mental State Examination [MMSE] score less than 15) (Folstein et al., 1975), (2) severe aphasia (token test score less than 20) (Spinnler and Tognoni, 1987), (3) severe auditory or visual loss, or (4) overt behavioral disturbances (delusions, hallucinations, agitation).

Epidemiology

Alzheimer's disease usually affects elderly people of both sexes; however, female gender represents a risk factor for the disease.

Settings

Our typical referral method entails recruiting clients from the Alzheimer Assessment Unit of S. Maria Nascente, Clinical Research Center, Don Gnocchi Foundation, Italy. They are then treated and periodically tested in the center's day hospital.

The Role of the Occupational Therapist in Applying the Intervention

Ideally, the interventions using recreational activities and socialization in a group should preferably be administered by an occupational therapist (OT) who is a member of a multidisciplinary team (Teri et al., 2003). The prerequisites for OTs to conduct a successful intervention program are (1) close interaction between clients and OTs (Wood et al., 2005), (2) an attractive environment, and (3) the presence of enough staff.

Results

Clinical Application

Program Organization

All clients have a support interview with a psychologist at the beginning and at the end of the program. Caregivers have the same type of interview at the beginning, in the middle, and at the end of the program. The clients follow a standardized short educational program with a rehabilitation therapist. This procedure ensures psychological support both to the client and caregiver to face the disease and to give the caregiver useful ways of interacting with the client positively. General principles and strategies to cope with memory and behavioral disturbances, to support the clients with their ADL, and to make the home environment safer are included.

Mediated Activities

The intervention program is mediated using the following:

1. *Recreational activities*, such as conversation, music listening, party games (bingo, dominoes, Scrabble, Snakes and Ladders, stick games), collage, poster creation, and games with balls, clubs, cones, and hopping.
2. *Activities of daily living*, such as setting and clearing the table, preparing tea or coffee, washing hands and dishes (Farina et al., 2006a).

Use of these activities should be individualized to (1) match the clients' functional skills (level of dementia) and interests, and (2) provide appropriate stimulation and enrichment, thus mobilizing the available cognitive resources and support fulfillment of the performance of the chosen activity without clients experiencing frustration.

Administration of the Intervention Program

Clients participate in groups of four in the intervention program mediated by *recreational activities and socialization in a group*. The group constellations are organized according to the client's sex (either same sex or two males and two females) and the severity of dementia.

The program involves fifteen 3-hour sessions. The sessions are preceded by a meal together, enabling all participants to socialize and create a lively atmosphere. Sessions are carried out according to the following schedule:

Weeks 1–4: Three days per week, one session per day
Week 5: Two days per week, one session per day.
Week 6: One day per week, one session.

Each session includes the following:

- An *orientation* task conducted for about 10 minutes. Spatial and temporal orientation is trained, and each member is encouraged to introduce him- or herself to other participants. The orientation training follows the principles described in the literature (Olazara et al., 2004; Spector et al., 2003). Two reality-orientation boards, one for time and one for place, assist the participants.
- *Reinforcement of spatiotemporal parameters* is applied for the whole session using the boards.
- Later, *recreational-occupational activities* are performed for about 50 minutes.
- *Occupational activities* follow for about 1 hour. These activities include step identification, verbal prompting, and modeling, used to assist participants in recreational activities and ADL.
- Finally, members of the group are involved in other *recreational activities* for about an hour.

Environment

Sessions are performed in a large room with a kitchen area, including cooking equipment and eating utensils, tables and chairs, and all the material necessary for the recreational and occupational activities.

How the Intervention Eases Impairments, Activity Limitations, and Participation Restrictions

The recreational activities and socialization intervention allow restoration of interpersonal interaction, ease social isolation, and decrease behavioral disturbances. Participation in pleasant activities improves the client's well-being, and occupational activities favor the maintenance of residual independence in everyday life.

Evidence-Based Practice

Cognitive and functional gains (Zanetti et al., 1997) and improvement in behavior have been found in clients with dementia who have participated in the recreational and occupational activities (Farina et al., 2002) associated with psychotherapy for clients and caregivers (Farina et al., 2006a). The clients belonging to the recreational group showed a significant improvement in behavior. When comparing baseline with posttraining condition, clients displayed a substantial reduction in disruptive behavior, and a tendency to a general reduction in behavioral symptoms compared to controls. This reduction was mirrored by a significant reduction in caregiver reaction to behavioral disturbances (Farina et al., 2006b).

Discussion

Clients with Alzheimer's disease who participate in a group activity program, mainly based on recreational and occupational activities improved their *functional behavior* (Farina et al., 2006; Martichuski et al., 1996; Rovner et al., 1996) and, briefly (less than 6 months), their *cognitive function* (Farina et al., 2006a).

However, long-term reinforcement programs have lasting effects (Metitieri et al., 2001; Orrell et al., 2005; Spector et al., 2000; Zanetti et al., 1995). The necessity for long-term interventions to maintain positive effects raises the problem of costs. However, the program is based on group sessions, allowing savings in personnel resources compared to individual techniques. Moreover, relatives and caregivers assisting clients at home can be trained to conduct this type of intervention to reinforce and prolong the benefits.

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