International Handbook of Occupational Therapy Interventions

Chapter 26
Psychosocial Intervention in Schizophrenia

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Occupational therapy intervention combined with appropriate medication is associated with improvement in clients' condition. (Buchain et al., 2003)

Abstract Occupational therapy as a psychosocial approach based on cognitive rehabilitation among clients with schizophrenia is discussed in this chapter. For these clients it is demonstrated that psychopharmacologic treatment combined with psychosocial interventions is more effective than solely psychopharmacologic treatment. This strategy improves cognitive aspects and social functioning and consequently counteracts the deterioration caused by the illness (Huxley et al., 2000).

There is a clear evidence that clients with schizophrenia have an intensive impairment of their executive functions (Morrice and Delahunty, 1996; Velligan and Bow-Thomas, 1999; Wykes et al., 1999). This deficit is defined as the "negative syndrome" of schizophrenia (Crow, 1980) and, in treatment-resistant schizophrenia, the syndrome exhibits great intensity. Thus, occupational therapy is a complementary treatment, which enables improvement in clients' executive functions.

Keywords Cognitive rehabilitation • Psychosocial intervention • Schizophrenia.

Background and Definitions

Disease and Symptoms

Schizophrenia is a chronic and incapacitating illness, with cognitive and interpersonal deficits (International Classification of Diseases [ICD-10], 1992). Schizophrenia is characterized by *positive and negative symptoms*, the latter being the most critical determinants of psychosocial functioning in schizophrenia (Pratt et al., 2005). The positive or *productive symptoms* are characterized by delusions, hallucinations, and disorganized thought, and the negative or *deficits symptoms* include blunting affective and poor discourse (Crow, 1980). Schizophrenia sufferers describe problems

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in concentrating on simple tasks and *executive functioning deficits* (cognitive flexibility, working memory, and planning), affecting every aspect of life (Wykes et al., 1999).

Impairments

The *cognitive impairments* and thought disorder that characterize schizophrenia may interfere with the development and influence of *self-efficacy beliefs*. For example, Brekke et al. (2007) have reported that cognitive functioning moderates the relationship between subjective well-being and psychosocial functioning.

Executive functioning (Baddeley and Della Sala, 1996; Shallice et al., 1991) is closely related to good social and occupational functioning (Green et al., 2000), describing the way information is controlled and processed. These processes are essential in many different situations, such as planning the execution of tasks, making decisions, correcting errors, and responding to new information (Wykes et al., 1999). Clients with schizophrenia do poorly on neuropsychological tests reputed to tap these skills: working memory, cognitive flexibility, and planning (Wykes et al., 2002).

Complementary Therapy and Psychopharmacological Treatment

The *psychosocial intervention approach* is based on treatment without psychopharmacologic preparations and includes any activity aimed at involving the client in the social environment.

Pratt et al. (2005) suggest that the negative symptoms, and not self-efficacy, are the most critical determinants of psychosocial functioning in schizophrenia, and that psychosocial treatment should focus on the amelioration of these symptoms.

Occupational therapy is performed in mental health clinics, whereas clients with schizophrenia aim mainly at social involvement using the daily routine as an organizing axis (Benetton, 1994). These interventions using *activities* (occupations) have a pedagogic aspect, enabling clients to learn new behaviors, to face up to the possibilities and limitations of materials and processes, to develop or use specific skills, and to experience several situations transferable from the therapeutic setting to external activities (Villares, 1998).

The process of occupational therapy that focuses on the *psychosocial aspect* includes the major aims of enabling individuals to engage in meaningful occupations and to cope better with daily life (Finlay, 2004).

Occupational therapy *related to the executive functions* of schizophrenia gives participants in task activities and occupations the opportunity to plan, organize, create strategies, increase personal development, experience motivation, and learn how to solve problems (Grieve, 1993).

Psychopharmacologic Treatment Compared to Complementary Therapy

Evidence-based studies have shown that the most efficient treatment for people with schizophrenia consists of the combination of *psychopharmacologic treatment* and *psychosocial interventions*, such as psychotherapy (cognitive behaviorist therapy, cognitive remediation, social skills training, integrated psychosocial therapy), and *complementary therapy* (day hospital, family intervention, psychoeducational intervention, supported employment, and *occupational therapy*) (Buchain et al., 2003; Cook and Howe, 2003; Dickerson and Lehman, 2006; Lauriello et al., 1999; Pfammatter et al., 2006).

Psychopharmacologic treatment has made it possible to reduce psychotic symptoms and to prevent relapses, but it does not have the same convincing effect on cognitive or functional impairments (Penadés et al., 2006).

Buchain et al. (2003) concluded that for clients with schizophrenia nonresponsive to conventional neuroleptic treatment, that is, treatment-resistant schizophrenia (TRS) (Henna Neto, 1999), the combination of clozapine and occupational therapy was more effective than clozapine alone. Occupational therapy represents an additional intervention for these TRS clients. In their study, Buchain et al. demonstrated improved occupational performance and interpersonal relationships among 26 clients, as assessed on Scale for Interactive Observation in Occupational Therapy (EOITO) (Oliveira, 1995).

Purpose

The principal purpose of occupational therapy applied in the psychosocial approach is to *facilitate social involvement*. The intervention provides the client with tools for imp roving their *executive functions* and *social ability* and their *occupational performance*.

Method

Candidates for the Intervention

The Program of Schizophrenia, entitled PROJESQ is intended for clients of either gender who fulfill the diagnostic criteria for schizophrenia according to the ICD-10, and are between the ages of 18 and 60 years. Clients who at present show impairments in cognitive function, mainly in executive functions and disabilities in basic and instrumental activities of daily living and social functioning, are invited to participate. The PROJESQ is conducted at the Psychiatry Institute of the Clinical Hospital of the Medical School of the University of São Paulo, Brazil.

Epidemiology

In a recent revision by the World Health Organization (WHO) on the global impact of the disease, Murray and Lopez (1996) reported a prevalence of schizophrenia of 0.92% for men and to 0.9% for women. Higher prevalence rates (close to 1%) have also been reported in recent studies conducted in Latin America and Brazil (Almeida et al., 1992; Vicente et al., 1994;).

The epidemiologic studies in Brazil estimate that the incidence and prevalence are consistent with those seen in other countries. There is no consistency of the possible differences in the prevalence of schizophrenia between genders, regardless of the methodology employed in the epidemiologic surveys (Mari and Leitão, 2000).

A study of psychiatric morbidity in Brasilia, São Paulo, and Porto Alegre showed a life-prevalence of psychotic disorders of 0.3%, 0.9%, and 2.4%, respectively, in a population over 15 years of age (Almeida Filho et al., 1992).

Five hundred clients with schizophrenia are treated in the PROJESQ each year at the Psychiatry Institute of the Clinical hospital of the Medical School of the University of São Paulo (HCFMUSP) Brazil.

Settings

The occupational therapy intervention is conducted in groups and coordinated by an occupational therapist (OT). The activities are suggested by the OT, who teaches all the clients the process of execution, with well-established phases to develop initiative, organization, planning, and problem solving. The intervention is mediated by handcraft activities (paintings, mosaic, découpage, and others) and activities of daily living (ADL). The intervention takes place in the occupational therapy department.

The Role of the Occupational Therapist in Conducting the Intervention

The most important role of the OT is to improve cognitive functions, mainly executive functioning.

The triadic relationship *therapist–client–activities* creates the conditions to develop an *environment* in which clients *experience learning* and the possibility of applying their resources, in which a pathologic condition can be transformed into one of creative and structured development, thus enabling clients to deal differently with their limitations and to improve their social interaction (Villares, 1998). The

OT's role during the group intervention is to facilitate the interpersonal relationship and social interaction between the participating clients.

Results

Clinical Application

The schizophrenia program (PROJESQ) specific to the Psychiatry Institute of the HCFMUSP, Brazil, includes the following components: (1) social skill training, (2) cognitive behavior therapy, (3) occupational therapy, (4) psychoeducation with families, and (5) vocational orientation. Assessments are used to determine what an individual client's program should entail:

1. *Social skill training* includes a range of techniques founded on operant or social learning theory to enhance social performance, such as instructions, modeling, role play, reinforcement, corrective feedback, and in vivo exercise using homework assignments (Pfammatter et al., 2006).
2. *Cognitive behavior therapy* is an empathic and nonthreatening technique, in which clients elaborate their experience of schizophrenia. Specific symptoms are identified as problematic by the client and become targeted for special attention. This work may include, for example, belief modification, focusing/reattribution, and normalizing of psychotic experience (Dickerson and Lehman, 2006).
3. *Occupational therapy:* The general aim is to assist clients in maximizing their occupational performance within their localized and unique social and cultural environments. The therapy here is focused on the continual assessment of each individual's occupational performance and goal negotiation, and on the selection, grading, and adaptation of activities related to self-care, leisure, and productivity (Cook and Howe, 2003).
4. *Psychoeducational teaching with families* includes ensuring that knowledge of the disease meets the expectations of family members and clients so that they may deploy their resources in combating the disease and promoting better family interaction (Anderson et al., 1996).
5. *Vocational orientation* is useful in helping clients to develop vocational skills that can exploit their abilities in a supervised, accepting environment. To be useful for independent living, this learning must be generalized to the workplace (Gunatilake et al., 2004).

The PROJESQ program uses different methods with each of the following components. For example, OTs use the cognitive rehabilitation model.

Occupational therapy based on cognitive rehabilitation comprises (Cook and Howe, 2003):

- Continual assessment of function, skills, and environment
- Collaborative goal-setting, treatment-planning, and review
- Selection, grading, adaptation, and sequencing of activities
- Adaptation of the social and physical environments, including educational interventions and support for relatives and people at work
- Training and development of skills, education, and rehabilitation

Occupational Therapy

Clients are encouraged to perform daily tasks, to develop constructive tasks (e.g., handcraft), to have contact with each other, and to share tasks. The process is exemplified in Table 26.1.

The occupational therapy groups include verbal elements, tasks and concrete elements that are independent of the approach used, social abilities training, social interaction, and cognitive training (Finlay, 1993).

Discussion

Clinically there is agreement among mental health professionals about the effects of occupational therapy interventions among schizophrenia clients with executive dysfunction. More evidence-based studies are needed to investigate detailed cognitive areas amenable to modification with such interventions. These studies would be relevant in mental health services once they improve the prospects of rehabilitation for schizophrenia sufferers and can lead to improvement in health costs.

Table 26.1 Occupational therapy sessions exemplified

Occupational therapy session planning nr____		
Performace of activity	Daily activities	Client-chosen handcraft activity
Performance of tasks	Example is cooking	Examples is working with mosaic-stones
Analyses of the performance components	Decide the recipe Organize the ingredients Prepare the food Organize the table Organize and clean the room	Learn the task's sequence order Organize the physical space and material for task execution Plan the individual mosaic project (object, color draw, etc) Organize materials
Purposes and expected outcome	The client takes: initiative plans and organize the activity relates to other clients social interaction occurs	the client takes: initiative plans and organize the activity relates to other clients demonstrates mental flexibility and problem-solving social interaction occurs

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