Temporal Adaptation: Application with Short-term Psychiatric Patients

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This paper begins with a literature review to investigate temporal dysfunction and its relationship to psychopathology and to adaptation. A specific program begun in a short-term hospital with psychiatric patients is then described. This program uses temporal adaptation as a framework for assessing patients' use of time and for developing methods to increase productive use of time.

Activity histories provide the occupational therapist with important information about patients—their work, their interests, their education, and their use of time. In assessments of psychiatric patients in a short-term hospital, the patients' use of time attracted this author's attention.

Kielhofner, in his article on temporal adaptation (1), provides a conceptual framework for looking at time. Learning, culture, homeostasis, social roles, and habits are discussed by Kielhofner as important in how patterns of activity and time are integrated for successful adaptation. This framework provides a useful basis upon which to devise an evaluation and treatment program for patients.

This paper begins with a literature review to further investigate temporal dysfunction and its relationship to psychopathology and to adaptation. A specific program started in a short-term psychiatric hospital using temporal adaptation as a framework for assessing patients' use of time and developing methods to increase their productive use of time is described.

Two types of problems presented by psychiatric patients appear in the review of the literature. One relates directly to their psychopathology, which may be organic in origin, and the second relates to problems in development that result in poor socialization and an inability to solve problems, set goals, and implement these goals. It is important for the occupational therapist to recognize the difference between these two types of problems. The former will diminish as psychopathology is reduced, whereas the latter problems are areas in which occupational therapy can provide assistance (Kielhofner, G, personal communication).

Psychopathology and Time Distortions
Distortions in the experience of time occur in many types of psychiatric disorders. Some distortions clearly have an organic basis such as memory difficulties related to ECT (electric shock therapy), and alcohol and drug reactions. These disorders may show marked impairment on the mental status examination (a test of cognitive functions—attention, ability to abstract, and comprehension) in orientation to time, place, and person.

Other distortions may be experienced more subjectively; stress and anxiety may contribute to this type of distortion. A striking account of a distorted time experience is reported by a patient in her diary:

Julia lives in a strange time world. Everyday is a thousand years, yet the days behind me all collapse into
Time perception shows no direct sensory basis (5). However, the perception of time is connected with exteroceptive sensory organs (sight) as well as proprioceptive organs (sensitivity to alternating rhythms of expectation) (4). Lesions in the brain, primarily in the temporal and occipital region, produce disturbances in perceptual skills that interfere with experiencing time. Sequencing, visual and spatial relations, position in space, and movement in space are perceptual skills relevant to time (5).

Many studies of time perception in schizophrenic patients have been reported (6-8). The results are inconsistent because of problems in terminology, a lack of uniform definitions for terms such as time sense, time orientation, and time perception, and because of differences in experimental methods.

A recent study (9) excluded schizophrenic patients with organic signs. The results showed little or no difference between the schizophrenic population and the normal population in time estimation. Thus, time distortions may have an organic component.

Time distortions and their relation to perceptual motor skills is an area for further study. Sensory integration evaluation and treatment may be a beneficial first step in treatment of time dysfunction. Lorna Jean King, in her recent symposium on "Sensory Integration as a Broad Spectrum Treatment Approach," (10) does not see sensory integration in conflict with other frames of reference but as a beginning in the treatment of schizophrenia. This, however, is only a hypothesis that needs testing and verification.

Future Time Perspective and Adaptation

The studies above that emphasize the microstructure of time (time estimation and time duration) have inconclusive results. They are related directly to the symptoms of the psychopathology. In addition, they fail to emphasize the meaningful events that define a person's past, present, and future. These events, called macro-events (1), provide persons with a sense of continuity when viewing their past, present, and future. A distortion in this time sense of macro-events can significantly affect ways of coping and adapting to the environment. The importance of these macro-events has been overlooked by the psychiatrist who traditionally has confined the evaluation of time to the mental status examination.

The ability to project into the future is the temporal mode most deficient within a number of different categories of psychiatric diagnoses (12). Several studies have related future time perspective to schizophrenia, depressive states, suicidal potential, and degree of thought disturbance: for instance, in one study of schizophrenia (13), future time perspective is defined and rated on concepts of "coherence" and "extension." Coherence is the degree to which subjects are able to organize events in the future. Extension is the length of time subjects are able to project themselves into the future. The authors reported significant differences in coherence and extension between schizophrenic and normal people (13).

These methods were also used in a study to measure future time perspective in depressed as well as in schizophrenic persons (14). In addition to supporting the previous findings of differences between schizophrenic and normal persons, on measures of extension the authors found depressed persons were less able to project themselves into the future than schizophrenic persons. Schizophrenic persons, on the other hand, showed more difficulty in coherence—organizing their life events logically. However, those with psychotic depressions showed more disturbance in this area than neurotic depressions. From these studies schizophrenic and depressed persons appear less oriented toward the future than normal persons.

Suicidal potential and its relationship to future time perspective has also been investigated (15). Yufit and others found that persons with serious suicidal intent were less able to establish plans and have hope for the future and were extremely limited in their future time perspective.

Fink's study (16) shows a relationship between future time perspective and activity in elderly subjects. Half of the subjects were institutionalized and half were residents in the community. Activity was measured by the hours subjects spent working (occupation), engaging in a hobby, or participating in an activity related to the organization of the institution. A positive corre-
The need to further assess patients' time use became apparent after reading their comments on the activity history, a part of the initial evaluation given in occupational therapy. Patients frequently left blank, crossed out, or responded "no way, too personal," or "this is my problem," to the section where they were asked to complete a schedule of a typical weekday and weekend day before being hospitalized.

A group was organized with a focus on leisure time skills as a first attempt to respond to the need for productive use of time. Patients participated in a planned activity that was followed by a discussion. Although active participation ensued, the group did not help individuals with their personal time management problems. A more thorough evaluation of this area of the patient's life seemed necessary together with restructuring the occupational therapy program to emphasize the temporal dimension.

The time management group was organized for patients who, according to the occupational therapy intake information, had problems managing their leisure and work time outside the hospital. It met for 1 hour once a week until the author left the setting, a period of about 8 months. It was based upon a two-part time-oriented evaluation and implementation.

The group's goals (terminal behaviors) were for the patient to be able to: 1. indicate how time was spent outside the hospital; 2. classify activities in relation to work, play, and self-care (patients have a difficult time identifying what is work, play, or self-care); 3. identify a need for change; 4. formulate goals for one's self; 5. organize these goals into priorities; 6. formulate specific activities to accomplish these goals; and 7. begin working on these activities.

Group Format. At the beginning session, the patients were told about the group's purposes—to look at how they spend their time outside the hospital and to identify what they would like to change, and how they would implement these changes. Responsibility for identifying problems with time management was placed upon the patient. Motivation is also important if change is to occur. Patients who were in the group the first week were requested to instruct new members about the group. Continual restatement of the goals was helpful, not only for the old members to refocus their goals, but also for the new members by providing a rationale for the process of examining their use of time.

After the introduction to the group patients were given a folder with a series of activities to complete. The "pie of life" activity consists of a circle divided into 24 equal sections corresponding to 24 hours. The patients were instructed to fill in each section with how they spent their time before they were hospitalized; to color each area with a coded color; to count and record the number of hours spent in each activity; and, after having a look at their previous use of time, they were asked if they were satisfied with how they are spending their time and what they would like to see changed. This activity is graphically useful in revealing the areas of dysfunction.

The second activity emphasizes goal setting and is a simplification of Alan Lakein's steps to time management (18).

Further assessment of time use is individualized and is based on the patient's awareness of problems and need for change. For example, some patients have worked on vocational tests, work evaluations, and activities related to leisure interests. Some have explored various community agencies or programs to achieve a goal.

Outcome or Results. Initially, some patients responded negatively to the group and walked out of the room. It was apparently threatening
for them to examine their use of time publicly. For those who stayed and followed the time-management evaluation, problems were identified faster and intervention could occur more quickly. The first step in making a change is being aware of the problem. Because it is difficult to deny a problem with time management when it is so clearly defined by the time schedule of the patient, the evaluation format revealed temporal adaptation problems in one session. For example, a young patient who spent his day at home watching TV revealed his low self-image was caused by his weight problem; the patient would not go out because of his appearance. In the group discussion (which occurred in each session) another patient suggested he contact Over-Eaters Anonymous to help him achieve his goal of losing weight. The patient looked up the telephone number of this organization in the phone book but became resistant when it was time to make the call because he had never used the telephone. The patient role-played the situation and was able to follow through on the call. Through identifying a problem with use of time, other problems were identified—a weight problem, poor self-image, and lack of communication skills via the telephone. As Kielhofner states (1), the temporal adaptation frame of reference focuses on an important dimension of one's life, a dimension that encompasses all areas of occupational therapy.

However, a time management program cannot be handled effectively in just a one-hour weekly session, for it must encompass all areas of a person's life. Patients should make some decisions and have responsibility for using their time more productively. Time management could become the central theme around which to structure the entire occupational therapy program.

Plans are to use this time evaluation with all patients as part of the initial occupational therapy evaluation upon admission. In addition, many of the methods used in the future time perspective studies such as time questionnaires, story completions, and future autobiographies could be incorporated into the program. The remainder of the program could be divided into work, leisure, and self-care modules with patients attending one, two, or all three areas. Areas would be divided into activities such as recreational therapy, dance therapy, and crafts, with referrals based on individualized needs, rather than on the traditional group approach. It appears that an individualized program, not group-oriented activities, may be more appropriate for patients in a short-term hospital setting.

**Summary**

Future time perspective, defined as an ability to project into the future and to logically organize future events, is deficient in a number of people. Understanding the future time perspective of patients may help improve their ability to engage in purposeful activity in their every day schedules. Development of programs emphasizing work, play, and self-care in relation to future orientation seems indicated, especially where length of hospital stay is short.

**Acknowledgments**

The author wishes to acknowledge Sharon Coleman, Ph.D., for her editorial assistance, and Susan B. Fine, M.A., OTR, FAOTA, and Gary Kielhofner, M.A., OTR, for their support and encouragement. This article is based on a presentation given at the AOTA 58th Annual Conference, San Diego, California.

**REFERENCES**