This paper focuses on the relationship between temporal perspective (in persons with chronic schizophrenia) and the ability of these persons to function effectively in daily occupations and culturally expected roles. An ethnographic study of persons with chronic schizophrenia living in a board and care home provided the data with which to explore these issues. These data address two questions pertinent to occupational therapy: (a) How is a person's temporal perspective demonstrated in a board and care setting? and (b) How does the structure of this environment orient persons to time, in general, and especially to the future?

The board and care home in this study created a predominantly present time orientation for its residents. The overall temporal structure of the setting was distal from their point of view; distal refers to structure imposed from outside the person. Within the setting, persons' future time perspective as expressed phenomenologically tends to be focused proximally, that is, on close or immediate events and outcomes (Jones, 1988). Although the residents' activities and orientation to time appeared overwhelmingly structured by the predictability of the setting, self-orchestrated routines and unique approaches to occupation were displayed, demonstrating some future time perspective.

Schizophrenia has long been recognized as one of the most debilitating processes to impede the development or continuation of a normal, mentally healthy life (Bleuler, 1950). Numerous aspects of a person's life are negatively affected by the disordered thoughts, distorted perceptions, poor reality contact, and inner turmoil common in schizophrenia (American Psychiatric Association, 1987). Although the expression of schizophrenia in the daily life of a person is unique, persons with this disorder typically experience similar cognitive, emotional, and perceptual deficits. Research since Wallace's (1956) classic study of future time perspective has suggested that certain aspects of time, such as duration, are experienced differently by persons with chronic schizophrenia than by those not affected with the disorder (Densen, 1977; Melges, 1982). Inaccurate responses to time passage (duration) include overestimation and underestimation.

The interplay between formal temporal structures in the environment, such as mealtimes and money distribution, and the residents' future time perspective (albeit limited) has important implications for both their occupations and possible occupational therapy interventions (Clark et al., 1991; Kielhofner, 1979; Yerxa et al., 1989). Analyzing the relationship between temporal perspective and daily occupation in everyday settings helps to clarify the potential adaptations that may be made among persons with schizophrenia and other populations (Kielhofner, 1979, 1982; Kielhofner, Barris, & Watts, 1982; Yerxa, 1991).
Temporal Perspective in Persons With Schizophrenia and the Performance of Occupations

The terms *time orientation* and *temporal perspective* are often used interchangeably but are differentiated in this study. *Time orientation* is the person’s preferred mode of thought and behavior (Nuttin, 1985). A person’s time orientation may be balanced among future, present, and past realms or may focus predominantly in one realm (as when someone is said to be “living in the past”). This paper focuses on *temporal perspective*, which refers to a person’s cognitive understanding of the relationship between large blocks of time (such as days, months, and years) and past events or expectations of the future. Future time perspective is associated with the ability to plan and organize activities beyond the present moment. The idea of deferred gratification is an example: college students accept years of study and limited income to reach a goal of future employment and financial independence.

Wallace (1956) completed one of the first empirical studies of the relationship between schizophrenia and distortion of future time perspective. The components of future time perspective established were extension (the length of time into the future that a person thinks about and acts upon), coherence (the degree of organization and logical order of events conceptualized) and density (the number of events envisioned). Wallace found that extension and coherence were significantly reduced in persons with schizophrenia compared with a control group that had no psychiatric condition.

Kastenbaum (1961) further investigated extension and coherence as well as the constructs of density (the number of events envisioned) and directionality (the preference for a dynamic directional movement of time versus a static one). Results of Kastenbaum’s study with a group of 209 high school students suggested that density correlates significantly (p = .01) with extension and coherence. Findings from Kirstein and Bubberg’s (1979) study of persons with schizophrenia, depression, or character disorders (n = 38), indicated that the range of temporal disorganization is significantly greater for persons with schizophrenia than for those subjects with depression. Spadone’s (1992) study of 88 American subjects representing three ethnic identities (Anglo, Thai, and Cambodian) disputed the notion that a significant future time perspective is necessary for temporal adaptation. Although subjects from both Southeast Asian countries selected more past-oriented statements than did white Americans, the entire subject group demonstrated a greater past extension than future extension. The use of the 12-item Time Reference Inventory (Roos & Albers, 1965) to determine future time perspective is questionable because reliability and validity have not been reported. Researchers investigating the efficacy of psychosocial assessments developed in the United States for use by persons living in different cultures declined to use traditional measures of time perspective and orientation for persons with schizophrenia (Evans & Salim, 1992). The bias of such measures toward the middle and upper socioeconomic classes of Western industrialized societies led to the development of a more culturally valid tool.

The limited research in psychiatry over the past 15 years on the future time perspective of persons with schizophrenia may relate to the resurgence of biochemical explanations for the disorder. Future time perspective is relevant to occupational therapy because of its presumed role in goal-directed activities. Research on the relationship between these two concepts remains limited in scope and quantity (Duellman, Barris, & Kielhofner, 1986; Neville, Kreisberg, & Kielhofner, 1985).

Persons diagnosed with schizophrenia must experience symptoms for a minimum of 6 months, have some psychotic symptoms, and be free of significant manic or depressive features (American Psychiatric Association, 1987). The age of onset for schizophrenia ranges from adolescence to early adulthood and affects men and women equally. An estimated incidence of schizophrenia in the United States ranges from 0.3 to 0.6 per 1,000 persons (Kaplan & Sadock, 1991). The lifetime prevalence rate is estimated at about 1.5%. It is believed that 40% of all mental hospital beds in the United States are occupied by patients with chronic types of schizophrenia (Keith & Matthews, 1984). National and state policies of deinstitutionalization resulted in a radical decrease in the population of state hospitals, from approximately 560,000 in 1955 to 116,000 in 1989 (Bachrach & Lamb, 1989). Deinstitutionalization is the target of considerable criticism (Bellack & Mueser, 1986), much of it related to the insufficient financing and limited development of community treatment programs despite the federal Community Mental Health Center legislation of 1963 (Goldman, 1984).

Social supports available for persons with mental illnesses include a variety of sheltered care residences, financial assistance, and rehabilitation services. Approximately 300,000 to 400,000 persons with chronic mental illnesses reside in 30,000 board and care homes (Nagy, Fisher, & Tessler, 1988). Money from federal programs such as Medicare, Medicaid, and Supplemental Security Income (SSI) is available along with state funds to provide shelter, food, and other life necessities. Rehabilitation programs are not offered at most board and care homes. Many facilities have some structured activities; however, there is little published on the role of occupational therapy in these settings (Friedlob, Janis, & Deets-Aron, 1986).

**Literature Review: Temporal Perspective and Performance of Occupations**

The psychological literature portrays future time perspective as a cognitive construct related to such variables as...
achievement, planning, locus of control, and developmental stages (DeVolder & Lens, 1982; Nurmi, 1989). Research on future time perspective has been typically conducted by pencil-and-paper tests to measure subjects' temporal beliefs and plans. A test in the Thematic Apperception Test (TAT) battery, for example, requires the subject to complete partial stories and mark future events on a life line. A problem with this method for understanding the effect of future time perspective on occupations is that it provides little information about the routine patterns of life (DeVries, 1987). Pencil-and-paper measures of future time perspective do not allow researchers to understand how context affects the enactment of temporal perspectives through activities.

Cultural sensitivity is needed to better understand the effect of environments in shaping temporal perspective, patterns of activity, and their relationship. The current conceptualization of the environment transcends the notion of merely physical or social settings and acknowledges the power of cultural and historical domains of a person's lived experience (Rowles, 1991). Temporal perspectives arising from cultural socialization generally have a significant effect on behavior (Estroff, 1981) and influence the choice and enactment of occupations (Evans & Salim, 1992; Wieringa & McColl., 1987). Anthropologist Hall (1983) identified the dominant white American culture as one that values future time and goal-orientation highly. Persons who hold these values may misunderstand persons from nondominant cultures within the United States in which primary temporal orientation is, for example, to the present. Cultural groups predomnantly oriented to the present are customarily more concerned with the process of events and activities, rather than with their final goal. Persons within certain diagnostic groups such as schizophrenia may be viewed as part of a nondominant culture, as a means of comprehending their unique perception of time and their place in society.

It has been proposed that temporal orientation encompasses "an individual's awareness of past, present, and future and the degree of importance attached to each, along with beliefs about how time should be used" (Neville et al., 1985, p. 4) and that these beliefs are culturally influenced (Kielhofner, 1977). The contexts or environments in which behavior occurs are important factors mediating occupational performance (Barris, Kielhofner, Levine, & Neville, 1985). Jones (1988) proposed that time reflects our fundamental orientation to life. Jones argued that a strong relationship exists between the temporal perspective held by members of a culture and their subsequent goal-directed behavior. In addition, Jones stated that the cultural context and ecological conditions in which temporal perspectives develop are critical to understanding a person's approach to goal-directed behavior. Wieringa and McColl. (1987) acknowledged the influence of cultural socialization on the goal-directed behavior of Native Canadians, highlighting this crucial factor in the assessment and intervention of occupational performance.

An interest in the relationship between time and performance first appeared in the occupational therapy literature when psychiatrist Adolph Meyer (1977) discussed the philosophy of occupation. He proposed that "Man learns to organize time and he does it in terms of doing things" and further suggested "the valuation of opportunity and performance as the greatest measure of time" (p. 642). Renewed interest in the role of time in occupational behavior is evident in the Model of Human Occupation (Kielhofner & Burke, 1985) and in the new discipline of occupational science (Clark et al., 1991; Yerxa et al., 1989). Temporal orientation has been conceptualized as part of values within the volition subsystem in the Model of Human Occupation; it has been linked theoretically with adaptation in other occupational therapy literature (Kielhofner, 1977, 1979; Neville, 1980).

Neville, Kreisberg, and Kielhofner's (1985) integration of key temporality theory and research (Meiges, 1982; Wallace, 1956) supported framing the problems of temporal dysfunctions that are often experienced by persons with schizophrenia into the Model of Human Occupation (Kielhofner, 1977). The initial differentiation between temporal orientation and temporal perspective became less clear as their article progressed. The authors reverted to using components of both concepts such as duration, sequencing, and future time perspective to demonstrate the goodness of fit between temporal dysfunction and the Model of Human Occupation. The strength of this preliminary work is the synthesis of important social science concepts with an occupational therapy treatment model. Within this conceptualization, however, the potentially powerful influence of the environment is not adequately examined.

The occupational therapy approach contrasts sharply with most studies of future time perspective, in which the microstructure of time is the focus. The purpose of studying future time perspective in occupational therapy is to understand how it relates to occupational performance, that is, large chunks of real life activity, rather than data obtained under controlled conditions. Spadone's (1992) attempt to correlate measures of future time perspective with occupational function revealed no support for the idea that extension (a component of future time perspective) is necessary for temporal adaptation (Neville, 1980). This finding led Spadone to suggest that occupational therapy investigate a person's temporal adaptation by analyzing his or her abilities, including time use, through activities that are culturally relevant and meaningful to that person.

The use of qualitative research methods such as ethnography is well supported in occupational therapy (Haselkus, 1989; Spencer, 1991; Yerxa, 1991). Until recently, existing studies of future time perspective in occupational therapy were quantitative (Spadone, 1992; Weeder,
increasingly, theorists (Peloquin, 1991) are exploring time use through a broad sociocultural lens, and some naturalistic study of future time perspective has occurred (Suto, 1988). In contrast, the main purposes of studying future time perspective in psychology are to define the constructs involved, identify variables affecting these constructs, and add to the development of personality theory. The studies are typically quantitative, narrow in focus, and conducted in laboratory settings.

There is a scarcity of research addressing temporal perspective, particularly future time perspective, and the occupations enacted within a person’s predominant social roles and everyday contexts. So-called negative symptoms, such as lack of initiative, limited attention span, inability to feel pleasure, and asociality (Andreasen, 1982), experienced by many persons with chronic schizophrenia, are only partially responsible for the inability of these persons to organize time and engage in social roles (Estroff, 1981; Wilson, 1982).

Sociocultural temporal influences begin in early childhood, with family experiences providing the arena for a person’s initial socialization to time. The timing of activities and expectations of certain behaviors within the family and environmental constraints influence a person’s future ability to adapt to the larger culture. Persons dependent on social and mental health services are particularly vulnerable to environmental constraints such as monthly welfare payments and the availability of temporary shelters (Estroff, 1981; Murray, 1984). Direct service providers and board and care home consultants will benefit from understanding how the facility structure helps or hinders a person’s future time perspective, as it relates to involvement in desired occupations activities.

Method

Subjects

An ethnographic approach was used to collect qualitative data concerning 10 subjects (5 men and 5 women) living at a state-licensed board and care home in southern California. Criteria for inclusion in the study included a diagnosis of chronic schizophrenia, undifferentiated or residual type, as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM III-R) (American Psychiatric Association, 1987), no known organic brain pathology, residence at the board and care home, and proficiency in English. Subjects ranged in age from 29 to 60 years. Of the nine American-born subjects, three were African-American and six identified themselves as white. The tenth subject was Southeast Asian and identified herself as white. Potential subjects who had a paranoid disorder or prominent paranoid ideation were excluded from the study to prevent an exacerbation of delusional states and suspicion resulting from questions asked in the course of the data collection. Observations of the 40 remaining residents in this board and care home, an equal number of men and women, were recorded as these persons participated in the milieu with the chosen subjects. Of the 50 persons living at the home, approximately 7 persons are considered relatively high functioning, a term used by staff members and some residents. This subjective designation is based on observation of effective money management, knowledgeable use of transportation, social interaction skills, socially acceptable grooming standards, and involvement in leisure interests. Only eight residents required considerable assistance with the enactment of basic skills of self-care; the abilities of the other residents ranged between these two groups.

Instrumentation

Participant observation was the primary means of gathering data in this study (Bogdan & Biklen, 1982; Estroff, 1981). The use of participant observation in research involves role implementation, use of specific methods, and data analysis (Pearsall, 1970). Desensitizing the subjects to the researcher’s presence was part of implementing the role and was addressed periodically throughout the data collection period. Permission to have particular residents as subjects was obtained through explicit descriptions about the purpose of the study, a written consent form, and an explanation about the data gathering process. The first author presented herself as an interested and sympathetic observer, not as an occupational therapist.

The following strategies were used to address the problem of adversely affecting the data through the principal investigator’s presence. Participation in the milieu was avoided if it appeared intrusive to the typical flow of interaction between residents (and between staff members and residents) or disrupted the routine of the facility. Actions that compromised the residents’ privacy and participation that resulted in the focus turning to the researcher were avoided. The first author was involved in many recreational, social, and routine activities occurring naturally in the setting. Participant observation by the first author occurred through such activities as helping residents with minor chores, chatting with residents, and trying craft projects.

Direct involvement with the residents in their home and the nearby community totaled more than 70 hr and spanned 9 weeks. From a participant observer perspective, subsequent detailed descriptions of the setting, interpersonal processes, and activities were documented in the form of field notes (Bogdan & Biklen, 1982; Lofland & Lofland, 1984). Two instruments from a multitest time battery were used: a semistructured interview and a 24-hr time log (Lacrington, 1970). The first part of the interview required demographic information; the second part posed questions about time in relation to the residential environment, activity schedules, and subjects’ future plans. With permission of the subjects, eight interviews
were audi-taped and transcribed. The self-report time logs required the subject to note the activity and indicate whether it was routine or planned and whether it was done alone or with others. The time logs helped the first author identify the subjects' activities on a half-hourly basis. This tool was completed independently by three subjects and dictated to the first author by two other subjects. Five subjects refused to complete a time log, stating that they forgot or that it was not important to them. Demographic data were gathered on the subjects before in-depth participant observation and administration of semistructured interviews.

Data Analysis

Data were collected, coded, and analyzed with the methods described by Glaser and Strauss (1967) and Lofland and Lofland (1984). The details of all observed activities were written into field notes in a narrative style. Recurring themes and meanings attributed to environmental phenomena resulted from, and were refined by, the ongoing coding and analysis of data. For example, chunks of data about the use of money required a separate coded category from institutional practices such as sitting and smoking. Once categories were established, the properties and situations pertinent to this substantive code were clarified through time sampling and internal sampling. Time sampling refers to gathering data at a variety of times, such as different times of the day, days of the week, and times of the year. Internal sampling involves encountering the maximum number of people in the research setting, in the greatest variety of situations. Theoretical ideas or hypotheses about a large range of phenomena developed through the use of coding and analyzing data.

Findings

Description of the Setting

This psychiatric board and care home, located in a large metropolitan area of southern California, is situated on a busy street in a low-income area. Within one block are bus stops, retail and service establishments, single-family homes, motels, apartments, and another board and care home. Personal safety outdoors, particularly at night, is compromised by a high proportion of petty theft, vandalism, and drug dealing. The interior is shabbily furnished but does not appear dirty. Cigarette smoke permeates the air and cigarette burns on the furniture are pervasive. Residents use the three common rooms on the ground floor—living room, foyer, and dining room—in addition to their bedrooms. Each bedroom is shared by two residents and furnished minimally by the management. The manner in which a room is personalized varies among residents. One woman's room appeared exceptionally noninstitutional, with numerous plants, pictures, afghans, and handmade crafts displayed. Most of the residents' rooms were sparsely furnished and lacked personal effects.

Structure, Predictability, and Temporal Markers

Findings from this study reveal an environment steeped in institutional routines that guide resident behavior through the use of proximal temporal markers. These temporal markers orient persons (whether intentionally or not) to the present or to a few hours into the future. Most residents acquiesce to this milieu. An analysis of their adaptive use of temporal cues to help enact daily occupations includes data showing the paucity of available social roles. Temporal perspective (understanding the relationship of large blocks of time to the memory of past events and expectations of the future) reveals itself in the behavioral routines that formal, temporal markers elicit. The time orientation to the present, encouraged at least indirectly by the facility routines, pervades many aspects of the residents' lives. The board and care home lacks programs or expectations that would nurture the development of the kinds of habits necessary for more independent living, even within the same setting. While providing the necessary "asylum" for persons who are unable to live outside a sheltered setting because of their symptoms, this environment continues to ground persons in the present.

Routines and Structures

House rules, scheduled activities, behavioral expectations, and the ratio of staff members to residents characterize the formal structures apparent at the home. The routines within this setting represent both formal and informal structures. Formal or institutional structures refer to observable routines that are controlled by the staff members, such as psychiatrist's visits, and to some extent by outside agencies such as the Social Security Administration. Informal or phenomenological structures are determined by routines and activities initiated by one or more persons, either residents or staff members. These routinized occurrences are influenced by the residents' personal habits, preferred pace (timing) of activities, and the availability of resources. The residents who initiated thrice-weekly Bingo games rely on staff cooperation to supply cigarettes and candy for prizes and to unlock the cabinet where the game is stored. An informal, yet routine activity such as this occurs in "unstructured" times, and may indirectly provide a temporal orientation to the future or ground the person in the present.

Structure in this setting consists of familiar and predictably timed routines. The routines provide a temporal framework that appears to influence the lives of the resi-
dents in at least three ways: through temporal reference points, the predictability of routines, and the feeling of repetition or sameness related to the routines. Scheduled activities provide temporal points of reference that may assist residents in the demarcation of past, present, and future. Meals, group activities, and other routines that staff members follow provide a fundamental organization to a resident’s day. Formal structures provide temporal markers related to a person’s daily function:

I asked one man (L. J.) when we could schedule an interview. “Wednesday is a good day. That’s linen day and I’m here all day. I don’t like the way they make the beds, so I do my own.” I requested a specific time on Wednesday. “Come anytime at all you just come and find me.”

The outcome of this conversation demonstrates a failure of a distal temporal marker to facilitate the expected (by the first author) behavior. The following Wednesday L. J. forgot about the appointment and instead took a bus ride and went shopping with another resident. This activity was organized a few hours before departure and his comment of “Let’s go after breakfast” to his companion denotes a proximal temporal marker by which the outing was organized. Within the facility generally, residents showed greater follow-through on occupations proximal to the time of arrangement compared with those scheduled to happen farther into the future. Conversely, the predictability of routines sometimes facilitated future time perspective because residents had events and activities to anticipate. C. J., a resident who works several hours weekly at the home, differentiated weekdays from weekends in a description of his usual occupations. The anticipation of a restaurant meal and departure from the home until 4 or 5 in the morning. (“I’m on a different schedule around 4:30 or 5:00 p.m. I go out for about 3 hours. I come back and watch TV down here for awhile and then watch movies in my room until 4 or 5 in the morning. I’m on a different schedule from the rest of these people. Why be awake all day if you just have to sit in this living room?”

The extent of K. R.’s temporal adaptation to the envi-
environment was unusual among residents, as was his articulate justification for the change. Many persons demonstrated less extensive adjustments to the milieu while still displaying some unique behavior patterns, such as shopping for others each day.

**Temporal Quality of the Setting**

The temporal quality of the board and care home is characterized in part by predictable occurrences initiated by residents or staff members, the residents' experience of waiting, and the limited number of social roles available. The staff members' scheduling of activities such as meals, medication and money distribution, and group events created a reliable temporal framework for residents. Most residents demonstrated an awareness of these happenings, as seen by their adjustment to this schedule. Knowing when the administrator routinely dispensed funds and cigarettes influenced when the residents began shopping for supplemental food, beverages, and personal items in neighborhood stores. Frequently, many residents gathered around the office in anticipation of its opening; several others arrived when an announcement was broadcast over the public address system. The pattern of daytime television viewing provided another fairly predictable environmental cue affecting the behavior of some residents. At 6:00 in the morning, one of the residents turned on the living room television to a particular channel. At 3:00 on weekdays, the first author observed a resident changing the channel, although this was not always done by the same person. The following comments show that W. E. used scheduled television shows to distinguish weekdays from weekends; B. K. used the knowledge to plan a meeting in her free time:

"The TV shows are a bit different [on the weekend], and they serve cookies and punch yesterday afternoon. Sometimes they serve popcorn or ice cream on the weekend.

I asked if we could arrange a time to meet this week and go over the questions about time. B. K. agreed, "Tuesday, we can do it Tuesday." B. K suggested 1:30 p.m., then retracted this offer "That's in the middle of *One Life to Live* but that's OK." I suggested we make it for a time when she wasn't involved in something else. "Two o'clock is arts and crafts how about 3 p.m.? That's *CHIPS* time."

An informal structure of television routines maintained by residents differed from formal structures initiated by staff members. The large monthly calendar in the hallway exemplified a formal structure staff used to organize some of the residents' daily activities. Only staff members wrote on this calendar; typical entries were Bingo games, health lectures, special outings, parties, and family days. The regular occurrence of health lectures and Bingo games was another environmental cue used by subjects to organize their chosen occupations.

The value of keeping busy and the use of temporal markers, such as routinely scheduled events on particular days, were understood keenly by some residents. This understanding was noted in the use of cultural idioms referring to time. As is customary in North American speech, residents used colloquialisms within the context of casual social exchanges ("You're here bright and early") and responded to questions with obvious hyperbole at times. Describing the behavior of a co-resident, C. J. said jokingly "You were feisty when you first got here. You'd complain about the time of day!" When I first approached C. J. about being a subject he refused claiming, "I don't have time. I work around here all day." This statement was similar to L. J.'s comment "I'm busy with some little thing *all the time,*" [emphasis added] a socially accepted exaggeration. The appearance of being busy seemed to be respected among residents. Those persons described by others as "working" or "busy" were invariably residents functioning at a higher level than many in the facility.

Temporal markers used by the residents to organize events and appointments included "check day" and "laundry day." C. J. and S. P. referred to particular days of the week when arranging to meet with the researcher. B. K. once responded to the researcher's greeting by saying, "This is our day, isn't it?" in reference to our prearranged interview time. As mentioned earlier, proximal activities had a greater likelihood of occurring than did those in the more distant future. The use of references to time by this population did not differ significantly from the manner in which the larger population uses such phrases. The findings from this study do not suggest a relationship between these references to time and an increased planning or enacting activities in a person's personal future.

**Obstacles to Occupational Function**

As Meyer wrote, "It is not a question of specific prescriptions, but of opportunities" (1977, p. 641). The phenomenon of waiting is a common temporal feature in many residential care institutions (Bercovici, 1983; Kielhofner, 1979; Reynolds & Farberow, 1977). Lining up and waiting occurred several times daily. Residents waited for their daily allotment of money and cigarettes, to talk with the administrator, or for a group activity to start. At times it was difficult to discern whether the predominant activity was waiting for something specific to occur or being engaged in a sedentary occupation such as smoking or thinking.

A few persons cultivated limited work-related occupations within the setting; their performance and roles are discussed later. No resident was employed outside the facility. Behaviors that residents might have enacted within other roles, such as hobbyist, family member, student, or caregiver, were seldom seen by the researcher. Of the 10 residents interviewed privately, six reported having no contact with their families. It was unclear how these estrangements developed or how the residents felt
about them.

The residents experience a type of enforced leisure resulting from a combination of factors: predominantly passive free time activities, a lack of involvement in traditional social roles, and many hours of free time. Residents spent several hours of their daily unstructured time watching television, resting in chairs or on beds, chatting with co-residents, and taking walks. This passivity, whether related to feelings of boredom or lack of participation in varied social roles, is associated with schizophrenia. It may also be an effect of this particular institution's structure, where a person's most basic living needs are routinely fulfilled. The following account of T. E.'s day shows how time is used by many residents in this setting:

"At 7 a.m. I get up and sometimes shower. Then I take medications and eat, usually just cornflakes. That's about the same every day. Around 9 a.m. I go back to bed. I stay dressed but back in bed. Sometimes I stay there until lunch at 11:40 a.m." Today I observed T. E. in the living room at 10:15 a.m. smoking. At 1 p.m. he was walking back from First Street. "Around 4:30 p.m. I get up and walk down to the bus bench and sit. I'm back here by 6:00, take my medication and then go upstairs. Then I listen to the radio for the rest of the evening. I don't do much other than smoke, sleep and walk down to the bus stop."

"Nothing, that's all I ever do here. It's nothing."

Although T. E. did not specifically complain about boredom, he commented that sleeping was his favorite activity. Many persons appeared bored, but it is unclear whether they actually felt that way. S. R. and C. M. criticized the lack of change in the facility and expressed feelings of boredom directly, as did others:

"I asked B. K. what she enjoyed doing. "I like to sleep a lot. There's nothing to do here anyway." C. M. was asked what he was doing. "Nothing, that's all I ever do here. It's boring." A third resident, K. R., replied indirectly to the same question. "Some people here sleep all day." [emphasis added]

Limited funds with which to pursue hobbies or education, little opportunity to participate meaningfully in a family unit, and the unavailability of work seemed to contribute to feelings of boredom. L. J. said that little changed after monthly house meetings, which he believed were ineffective in addressing residents' concerns. His comments about these meetings are similar to those of other residents.

An examination of the temporal structure in this environment suggests that participation in and awareness of predictable routines may constrain or facilitate a resident's occupations. One function of routines is to supply a framework through which activities may occur. The dearth of available social roles with their incumbent routines appears to constrain the frequency, depth, and variety of occupations engaged in by residents. The following examination of the data supports the idea of time as a critical influence on the planning, anticipation, goal setting, and habits of the residents. Against the backdrop of the board and care home, the unique uses of time appear as essential threads in the fabric of day-to-day activities.

Future Time Perspective: Proximal Activities and Goal Setting

The data show differences in observable goal-directed activity between persons who have made plans for at least one day in the future and those whose self-reported plans were either nonexistent or in the present, that is, the same day. In response to questions about planning and goal setting, four subjects stated a preference for immediate or proximal planning, depending on how they felt on a given day. Comments such as "I just take it as it comes" (W. E.) and "One day at a time" (B. K. and P. A.) reflect these subjects' preference for immediacy and coincide with a number of unrealistic plans. I asked T. E. about plans for the afternoon, the next day, and further into the future. He replied, "I don't have no plans. I just take it day by day. Maybe I'll go to Chicago in April to visit my brother and sister-in-law." When asked to describe moving to Chicago, T. E. was unable to explain how he would save money for the train fare or receive SSI once in Chicago, nor did he know the cost of hotel rooms. Residents who reported making longer-range plans (L. J., C. J., and H. L.) engaged in a greater number of observable goal-directed actions and set more realistic goals than the four persons identified earlier. H. L. described actions she had taken to effect a move to independent housing:

"I'd like to get out of here but I don't have the money to do it with. I asked how she would go about moving. "Well, I'm on the housing [list] for another apartment through HUD [Housing and Urban Development] but it will take 2 years or so. It's county housing."

Residents' awareness of distant, institutionally based temporal markers influenced their daily activities. References to time, as well as residents' understanding of situations and subsequent outcomes, were noted in conversations involving the arrival of food, the context of its acquisition, and the ways in which food affected behavior. Residents anchored their anticipation and description of food to the time of day and day of the week. The daily lineup of persons outside of the administration office just before its customary opening exemplifies an understanding of institutional temporal markers. Residents were attuned to the proximal and contextually based rules for acquisition of tangible items or services, strategies for borrowing, and processes for obtaining favors. Understanding these rules influenced residents' efficacy in obtaining what was desired. One resident anticipated that rules, in this case attendance, governing the health lecture might affect his proximal goal. Before deciding to join this group lecture 20 min after it began, D. C. observed, "Can I still get refreshments if I come in now?" Hearing the affirmative answer, he chose to attend. D. C. observed her friend's attention to a television program, anticipated the time it would end, and framed her request to accommodate the situation:

"W. E., will you go out and buy coffee for me at 6:30? I don't feel so..."
well today and don't want to go out." W. E., sitting several feet away from D. C., never took her eyes off the television show. "Maybe."

Persons returning with snacks from fast-food stores were often persuaded to share with others. Those persons wanting something usually positioned themselves close to the potential donor, waiting or directly requesting to share in the food:

S. K.'s head is resting on the table where H. L. sat to eat her hamburger. Raising her head and looking at H. L., S. K. asks a question. "Can I have a bite?" Silently the hamburger is passed over to S. K., who bites off a portion and says: "I'll give you a bite of something next time I have something."

Residents realized the importance of maintaining credibility as borrowers. This implies an orientation to the future and was evidenced in persons who demonstrated incompetencies in other daily living skills. When persons borrowed cigarettes and small amounts of money from the first author, the intention to repay was always stated and usually occurred. The debit sheets that the administrator had residents sign, documenting their diminishing funds and cigarettes, reinforced the concept of future time. Borrowing negotiations among residents noticeably increased towards the end of the month, when many had depleted their supply of money and cigarettes.

A conversation in the living room reveals C. B.'s unexpected social competency—an awareness of the if-then concept. Regardless of the accuracy of the indebtedness, this conversation suggests a sophisticated understanding of key behaviors that maintain relationships over time:

C. B. lies on the couch and is not part of the conversation. Suddenly he asks a question. "Do I owe you any cigarettes, H. L.?" She replies no. From across the room W. E. speaks up. "You owe me one." C. B. walks over to W. E. and hands her two, which she accepts without comment.

Given the areas of dysfunction observed in the activities of many residents, it was impressive that they often remembered both their debts and what others owed them. It is likely that the extent to which persons value and find meaning in such interactions influences their attention to these kinds of details. The staff indirectly encouraged future time perspective through the facility-organized groups. Residents attending these groups were given chits, which were exchanged for toiletries, T-shirts, and other desirable items when the staff members organized an in-house store.

These data support the idea that one's ability to carry out realistic plans for the future is associated with persons whose usual occupations are realistic, goal-directed, and functional within the milieu. Future time perspective can be understood as goal-directed, reality-based behaviors that support social roles. L. J., C. J., and H. L. demonstrated this notion of future time perspective that is associated with an ability to function at a higher level than residents whose planning is more proximal in nature.

Habits and Other Self-Initiated Activities: Framed and Contained by the Temporal Boundaries of the Home

Routine patterns of behavior that support day-to-day functioning consist, in part, of habits (Neville et al., 1985). Resident-orchestrated daily routines ranged in complexity from habitual personal maintenance tasks to shopping and using public transportation. The timing of the administrator's distribution of money and cigarettes influenced the morning routine of resident shopping. The lineup of residents dwindled rapidly as each collected his or her daily allotment and proceeded to the store or fast-food restaurant. Before this distribution time, the environment often felt tense and residents exhibited more restless behavior than during other times of the day. This tension diminished somewhat when the residents were empowered with a small amount of money that was used to buy the newspaper, coffee or juice, and food. In this example, habit functions as an intermediary, arranging specific skills into smooth routines of behaviors that are performed in a seemingly automatic action sequence (Kielhofner & Burke, 1985).

Habits proceed "autonomously without the need for awareness, concentration, or direct consciousness, freeing up higher levels so that attention can be paid to broader actions and purposes" (Kielhofner et al., 1982, p. 8)

T. E.'s habits are sufficiently attuned to his current environment, but he lacks the combination of will and organizational skills necessary to enact larger and more complex sequences of future-oriented activity. A move or visit to Chicago is unlikely, given T. E.'s apparent avocation and the fact that he has resided at this home for 10 years, with no major overtures to leave. Although he exhibits some future time perspective, as evidenced by predicting the facility schedule accurately and asking when the researcher will return, T. E. is unable or unwilling to effect future-oriented activity to meet stated goals.

Habits are shaped by the distal institutional structure of rules and expectations, the proximal or more immediate demands of social interactions within the milieu, and one's personal temporal perspective. The daily habits exhibited by at least two persons show identifiable elements of collaboration and cooperation with the habits and routine patterns of behavior exhibited by other residents or the facility. The daily habits of C. J. and W. E. were exceptions to the range, frequency, and complexity of occupations observed in the majority of residents. C. J. functions in a modified worker role and his habits are predicated on an understanding of the institutional structure, including the temporal routine. His daily habits include knocking on residents' doors to wake them in time for breakfast, unlocking the facility gates for the incoming kitchen staff members, setting the table for meals, and emptying the garbage. C. J.'s ability to organize various skills into routines is apparent during the psychiatrist's weekly visits.
He is responsible for organizing the residents’ charts, rounding up residents to be seen by the psychiatrist, and keeping the next scheduled person seated, ready for the psychiatrist’s summons. C. J.’s volitional enactment of these routine behaviors is relatively unaffected by the vagaries of the residents’ social interactions.

Contrasted to the primary institutional structure supporting C. J.’s occupations (evidenced through habits), W. E.’s habits are more directly affected by the dynamic human environment. Whereas C. J.’s role in the setting is similar to what one customarily thinks of as a worker, W. E.’s role is one of buyer and requires some flexibility. In a setting where there is little opportunity to change one’s financial status through traditional means such as employment, W. E. earns 25 cents or a share in the item (especially food) each time she shops for other residents. These shopping trips occur daily, for some residents, the food item requested varies each day. W. E.’s shopping habits are predicated primarily on the habits and preferences of co-residents. The institutional routine of distributing money daily, however, affects her opportunities to earn money and engage in adaptive activities that support her self-initiated role within the setting.

Discussion

The description of a limited future time perspective in these subjects supports theories and anecdotal reports from the psychiatric and occupational therapy literature (Melges, 1982; Neville et al., 1985). Proximal goal-setting and organization for immediate fulfillment of a person’s wishes prevails over long-term planning. A more important finding is the extent to which these persons do organize their personal routines and maintain effective social interactions, whether it involves television programs, mealtimes, Bingo days, or structure arising outside of the facility. This finding leads to an obvious question: What is the relationship of temporal orientation and temporal perspective to occupational therapy intervention? How can these theoretical concepts be brought down to earth and provide options for change in the lives of persons with chronic schizophrenia?

First, occupational therapy must address the issue of temporal orientation in the assessment process and determine whether the person has a balance of past, present, and future temporal orientation within preferred activities. The term balance is used cautiously, as it is an imprecise, ill-defined term traditionally used in occupational therapy. Balance is a subjective designation and determined in part by the demands of the environment, the context in which activities occur. For example, consider the person who thinks constantly about the past. The person behaves as if he or she is living in that time, does not initiate new activities or make new friends, and shows little adjustment to current events in the environment. The key question to pose is: Does that temporal orientation interfere with one’s chosen occupations? If its interference displeases the person, then occupational therapy is within its mandate to offer strategies for functioning and adapting more in the present. If that person is functioning to his or her satisfaction and is not a danger to self or others, is occupational therapy warranted? Occupational therapy can begin to understand temporal orientation through a variety of means: discussion with the client and significant others, observation of the client, and the use of psychometric measures.

Second, occupational therapy must investigate the effect that future time perspective (a component of temporal perspective) has on planning, sequencing, visualizing, and enacting goal-directed activities. These skills are often affected by the negative symptoms of chronic schizophrenia: volition, attentional impairment, anhedonia, apathy, asociality, and side effects from medication. In addition to focusing on constraints within the person, occupational therapy should also address the sociopolitical reality that influences occupation, phenomena in the external environment that may handicap one’s efforts. Included are the effects of living in residential facilities lacking sufficient stimulation, the limitations of poverty and unemployment, and the limited availability of resources. To serve such clients effectively, occupational therapists must assess the internal constraints posed by limited future time perspective as well as the external forces impeding the enactment of chosen activities. Internal constraints include symptoms of schizophrenia discussed previously; external forces refer to safety, availability of leisure, and productivity opportunities. The symptoms of schizophrenia are not within the control of occupational therapy. Changes in the environment, however, may mitigate some effects of limited future time perspective. For example, organizational skills might be enhanced by increasing opportunities to plan more varied small group or individual projects. Those who dislike crafts, exercises, and health lectures (all organized by the board and care staff members) have few options and little support to organize other, more meaningful activities. The development of modified worker roles and allowance for some persons to cook for themselves, coupled with some assistance in learning the required skills, might facilitate increased occupational function. Success with the activities may result in residents leaving for a more independent living situation, but this would not necessarily be the outcome.

Third, occupational therapy must grapple with the issue of asylum versus active treatment for persons experiencing chronic schizophrenia and limited future time perspective or a functional imbalance in time orientation. There is a vast amount of time, up to 12 hr per day for most residents, for activities other than those of self-maintenance and productivity. The limited expectations of the board and care home and the very predictability of...
routines may result in boredom for some persons and offer few social roles but provide an asylum for others. For many persons, the facility milieu was reassuring and grounded them in time by providing accurate temporal markers that created boundaries and opportunities for their activities. The notion of asylum and no active treatment in a residential setting may be repugnant to occupational therapists but is worthy of consideration as more becomes known about the progression of some types of schizophrenia. Occupational therapy could have an important role in determining who might benefit from such a safe haven and in structuring an environment to enhance the quality of the life for the residents.

The difficulty in defining what a limited future time perspective means, either functionally or quantitatively, mirrors the analytic puzzle of determining the parameters of a typical number and variety of goal-directed activities (Clark et al., 1991; Yerxa et al., 1989). There is no research in occupational therapy that describes or defines what an appropriate configuration of goal-directed activities looks like or should look like for persons with or without chronic schizophrenia. An innovative method of analyzing whether these activities are limited in scope and number is to compare them to the demands of the roles they support. With that new perspective, it is clear that the goal-directed activities observed support the social roles available in the setting, (i.e., modified worker, friend, religious participant, and hobbyist). For example, a resident earns money and maintains social interactions through her shopping for co-residents. The issue of defining, quantifying, and analyzing goal-directed behavior is a priority for occupational therapy if we are to explain the effect that occupations have on daily functioning. The complexity and potential benefits of environments previously thought to have only a negative effect on occupations, that is, encouraging passivity and dependence, clearly necessitate further study. ▲

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