This paper introduces a method for analyzing clinical cases, which is based on ten primary questions and on criteria for selecting level of treatment. The questions and the criteria are derived from the model of human occupation. Four steps in the method are: gathering data in relevant categories; reviewing and analyzing data using the questions in sequence; selecting levels of treatment; and recording case studies. Three brief case studies taken from an acute care psychiatric setting are described to illustrate the use of this method.

The importance of an orderly approach to case analysis has been addressed in the description of the case method process for clinical problem solving (2), and in the presentation of the method for the problem-oriented record (3). Llorens has developed and tested the Sequential Client Care Recording System (4), and The American Occupational Therapy Association has published a chart audit manual for occupational therapists (5). The case analysis methods used in a profession help define and develop that profession. When the methods enable clear explanation of why one treatment procedure is chosen over others, they generate case records useful for clinical research and improvement of services. In addition, a case analysis approach closely linked to a theoretical model encourages the clinician to test the theory upon which it is based, and thus contributes directly to theory construction. The case analysis method proposed in this paper was developed in response to these concerns.

Purpose
The purpose of this paper is to introduce a method for analysis of clinical cases derived from the model of human occupation described by Kielhofner, Burke, and Igi (6-9). The method is designed to generate case records that illustrate a clear relationship between theory base, data gathering, data analysis, and treatment planning; it is also intended to encourage clinicians to question and test the model of human occupation. The method is based on ten primary questions that...
### Human Occupation Model Elements

<table>
<thead>
<tr>
<th>Throughput</th>
<th>Primary Questions</th>
<th>Data-Gathering Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volition Subsystem</td>
<td>Does the client anticipate successful outcomes of action?</td>
<td>Satisfaction with Performance Scaled Questionnaire (16); Tennessee Self-Concept Scale (17); interview.</td>
</tr>
<tr>
<td>Personal Causation</td>
<td></td>
<td>Object History (18); Buhler Life Goals (19); Interview, chart review.</td>
</tr>
<tr>
<td>Valued Goals</td>
<td>Does the client have valued goals?</td>
<td>Interest Check List (14); Strong-Campbell Interest Inventory (20).</td>
</tr>
<tr>
<td>Interests</td>
<td>Does the client have interests?</td>
<td>Activity Configuration (15).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All tests of specific skills, such as Purdue Pegboard (23), Bay Area Functional Performance Evaluation (24), Group Interaction Skills Survey (25).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Activity Configuration (15); Occupational History (21).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interview, observation, chart review.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Occupational History (21); Social Readjustment Scale (26).</td>
</tr>
<tr>
<td>Habitation Subsystem</td>
<td>Does the client have primary occupational roles?</td>
<td></td>
</tr>
<tr>
<td>Internalized Roles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Habit Patterns</td>
<td>Does the client have organized habit patterns?</td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>Does the client have performance skills to carry out valued activities?</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Output</td>
</tr>
<tr>
<td></td>
<td>Does the client use performance skills competently and consistently?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does the physical environment support competent and consistent use of skills?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does the social environment require occupational roles the client enjoys and performs well?</td>
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<tr>
<td></td>
<td>Does the social environment support successful occupational behavior?</td>
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</table>

The Model of Human Occupation: Brief Review

The model of human occupation (6-9) forms a solid basis for case analysis because it allows the description of both organized and disorganized occupational behavior, and the examination of a continuing process of change. According to the model, individuals constantly produce action and information (output); also, they constantly receive information (input) from the environment, including information about the results of their own behavior (feedback). The internal process of organizing and adapting to this information is called throughput. Throughput results in a changed capacity for output; that is, the person responds to incoming data, and on criteria for selecting the level of treatment. Each primary question links a variable from the model of human occupation to data gathered by clinicians. Criteria for level of treatment are derived from the descriptions of levels of arousal by Reilly (10) and Kielhofner (7).
information in a way that results in new potentials. New behaviors generate new feedback and lead to further changes in output.

Since the throughput process is the critical link of the person to the environment, it must be examined in clinical practice (9). The process is conceptualized as three hierarchically arranged subsystems. The highest level, the volition subsystem, enacts behavior and consists of motivational structures: interests, valued goals, and sense of personal causation. The habituation subsystem arranges behavior into regular and predictable patterns; it consists of habits and internal roles. The lowest level performance subsystem is composed of skills for producing basic units of action.

According to the model, occupational behavior can be understood by examining all these variables and the way they contribute to an ongoing cycle of change, both for the person and for the environment. In a benign cycle, change is generally adaptive; that is, experiences support the person’s desire to explore, to master, and to fulfill the environmental demands. However, vicious cycles may develop; in these, the individual repeatedly experiences disorganization, poor performance, and the anticipation of future failure. The primary task of occupational therapists is to enable clients to organize their occupational behavior so that benign cycles are learned or restored.

**Primary Questions**

Data review, data analysis, and treatment planning can be organized by reference to a series of ten primary questions. Each question reflects a variable of the human occupational model; taken together, they encourage analysis of the entire occupation system for a given client.

The questions and their relationship to the model variables are shown in Figure 1. The question sequence does not dictate the order of data gathering, but it does specify an order for analysis based on the logic of the human occupation model. The kinds of information gathered and analyzed for each primary question are indicated below.

1. **Does the client anticipate successful outcomes of action?** What is the status of the client’s sense of personal causation? Does he or she expect success in performance of daily life tasks? Historically, under what circumstances has the client felt effective or ineffective in occupational behavior?

2. **Does the client have valued goals?** Does the client have commitments and priorities for specific courses of action? Can he or she sustain action that might not be satisfying at present for the sake of future accomplishments? Has past behavior been goal directed?

3. **Does the client have interests?** Does the client have a variety of satisfying self-initiated activities? Could past interests be renewed?

4. **Does the client have primary occupational roles?** Can the client describe which activities define his or her roles as family member, worker, volunteer, student? Have necessary role transitions been made throughout the life cycle?

5. **Does the client have organized habit patterns?** Does the client’s daily schedule demonstrate routine, organized responses to life tasks, or disorganized behavior that fails to meet basic work, play, and self-care needs? Has the client historically been able to develop necessary habits? If not, why not?

6. **Does the client have the performance skills to carry out valued activities?** Does the client have the movement, perception, decision-making, and problem-solving abilities necessary to interact successfully with the environment? Have there been developmental, traumatic, or environmental stresses that have seriously limited skill acquisition?

7. **Does the client use performance skills competently and consistently?** Does the client use his or her repertoire of skills, or are some skills used poorly or not at all? Is the client a chronic underachiever or overachiever? Does the client’s output satisfy his or her own purposes and goals?

8. **Does the physical environment support competent and consistent use of skills?** Do the physical attributes of the client’s environment limit or encourage successful occupational behavior? Is there a history of significant poverty or wealth?

9. **Does the social environment require occupational roles that the client enjoys and performs well?** Do the client’s family, friends, and co-workers expect the same role behavior the client expects, or are there discrepancies? Have role requirements been consistent over time or have varying expectancies caused confusion and conflict?

10. **Does the social environment support successful occupational behavior?** Do family and friends support the client’s attempts at change? In the past, have significant individuals typically offered praise and encouragement, or criticism and conditional acceptance?

**Data Gathering**

Occupational therapists can use a wide variety of instruments and procedures to collect data. A frame of reference (11) or a paradigm (12) guides data gathering by suggesting which types of data to collect and...
Figure 2
Data analysis sequence and related treatment implications

1. Does client anticipate successful outcomes of action?
   - Acquire experiences of success

2. Does client have valued goals?
   - Develop valued goals

3. Does client have interests?
   - Develop interests

4. Does client have primary occupational roles?
   - Identify occupational roles and supporting activities

5. Does client have organized habit patterns?
   - Develop ability to follow routine

6. Does client have performance skills to carry out valued activities?
   - Acquire necessary skills

7. Does client use performance skills competently and consistently?
   - Integrate values, skills, interests into daily activity pattern

8. Does physical environment support use of skills?
   - Develop support systems in physical environment

9. Does social environment require roles client enjoys and performs well?
   - Acquire roles or identify alternative roles

10. Does social environment support successful occupational behavior?
    - Develop support systems in social environment

☐ Data Analysis  ☐ Related Treatment Implication

how the data will be used. The model of human occupation also provides such a guide; the content of various evaluation procedures can be examined and matched with the variables defined by the model. A number of currently used evaluations (13) yield the required kinds of information; for example, the Interest Check List (14) and the Activity Configuration (15) give data about interests and habit patterns, respectively.

Figure 1 suggests a correspondence between the model variables and some evaluation methods that may be used in psychosocial treatment settings to answer the primary questions. Therapists may choose these or other instruments useful in the local setting as long as they yield sufficient data in the conceptual categories suggested by the model. Skills, for example, can be assessed by a great number of instruments, the relevance of which depends upon the client population.

Data Review and Analysis
The ten questions provide a sequence for clinical problem solving in three ways. First, they organize data review so that information gaps can be noted and corrected. For example, in the course of answering the question about interests, the therapist may realize that more information is needed about interests predating illness. Second, they generate a coherent picture of the human occupation system's elements (skills, internalized roles, output, and so on) and of the system's dynamics: how has the system operated in the past, how does it operate in the present environment, and is the tendency toward benign or vicious cycles? (27) For example, after answering the first four questions, the therapist can postulate how the volition subsystem is working and has worked for a client, and what its contribution may be to benign or vicious cycles. Third, they point to
treatment issues; each primary question, if answered negatively, implies a corresponding focus for treatment. For example, if the fifth question (Does the client have organized habit patterns?) produces a negative answer, then treatment will aim at teaching habit formation and the ability to follow routines. Figure 2 demonstrates the sequence of data analysis, and the relationship between the primary questions and corresponding treatment implications.

Selecting Levels of Treatment
In addition to examining each element of the system, treatment planning requires selecting the level of arousal most likely to encourage client participation. Reilly (10) and Kielhofner (7) have described a continuum from exploration through competency to achievement, representing increases in the levels of challenge necessary to arouse clients as they become more competent and capable.

Exploration is doing something for its own sake, for the pleasure involved in the doing; competency is practice according to models or standards of normal behavior; achievement is competition with a standard of excellence (19). Reilly and Kielhofner note that exploration is an optimal motive for generating skills, competence for organizing habits, and achievement for acquiring competent role behavior. We have developed three levels of application for the case analysis method related to these three levels of arousal.

The concept of levels is based on the ability of the person to reorganize over time in the direction of increasing complexity and differentiation. Clients can only become motivated toward increasingly complex behaviors as their sense of control and experience of success increases. The primary question sequence gives the clinician a framework for redirecting a person in a vicious cycle that is spiralling downward, but it must be applied with an awareness of the levels of arousal. By analyzing the overall status of the individual, one can identify the kind of treatment environment in which he or she will best succeed.

The case analysis method outlined in the flow chart (Figure 2) describes adaptive behavior characteristic of a healthy individual throughout the life cycle. Most clients in psychiatric acute care do not enter treatment ready to identify valued goals, organize behavior into adaptive routines to achieve these goals, or develop support systems in the environment. Their lives have been disrupted by physiological trauma, the disease process, developmental deprivation, or environmental stress with resultant cognitive, emotional, and social deficits. They need to acquire immediate coping skills such as increasing their attention span, learning to accept direction, and learning to cooperate in groups—all of which will later support more complex behavior. It is important to identify both the weak and the strong variables for the client so that the clinician can decide which areas of functioning to focus on; it is also important to present the treatment environment so that learning at the necessary level is encouraged. Consequently, the therapist should adapt the case analysis method to an exploratory, competence, or achievement level, depending upon the needs of the client. Figure 3 summarizes client behavior criteria for selecting each level of treatment and qualities of the treatment setting for each level.

Recording Case Studies
Case information and conclusions are recorded on a form that reflects the human occupation model and the primary question sequence. Figures 4-6 show the use of this form for the case studies that follow. One begins with the first primary question, reviewing and analyzing data pertaining to the client’s sense of personal causation. If the client generally feels ineffective and expects failure, the therapist checks the negative column beside the personal causation item, records information supporting or clarifying this judgment in the “comments” section, and notes whether more information is needed, together with the relevant treatment implication. After completing this process for each of the ten primary areas, the therapist summarizes the case analysis in terms of overall system functioning (27): dynamic (how it is presently functioning for this client); historical (how it has functioned in the past); contextual (how the system is influenced by the environment); and, finally, the nature of the overall system trajectory with implications for treatment.

The goal of the primary questions is to find out whether a person is in a benign or a vicious cycle. If the person is in a benign cycle, either no treatment is necessary or the therapist will reinforce elements maintaining the benign cycle. If the person is in or is at risk for a vicious cycle, elements contributing to the vicious cycle and blocking competent occupational behavior must be explored and resolved. Restoration of competent occupational behavior is approached with careful attention to all elements of the process. Overlooking any facet of the system’s functioning can lead to unfortunate clinical experiences such as working with an apparently cooperative
Client Behavior: Criteria for Selecting Treatment Level

Exploratory Level:
1. Lacks ability and/or awareness to identify valued goals, interests, or environmental supports.
2. Does not maintain occupational behavior through daily habits or routines.
3. Lacks productive occupational role.
4. Lacks basic skills, which severely constrains system (Example: severely disorganized thought processes).
5. Demonstrates extremes of sense of personal causation; self-esteem unrealistically high or low.

Competence Level:
1. May have vague and unrealistic valued goals, but accurate self-report.
2. May be able to identify interests, but may not have many.
3. May need to add skills to repertoire.
4. Lacks everyday habit patterns that integrate skills with valued goals and interests.
5. Needs to identify and develop environmental supports.

Achievement Level:
1. Can identify valued goals and interests.
2. Has adequate skills for most valued activities.
3. Assumes responsibility for choosing and implementing daily schedule of activities; demonstrates competence in routines.
4. Main problem is integrating skills and routines into an occupational role which is productive and satisfying.

Qualities of Treatment Setting

Exploratory Level:
1. Goal: activate desire to explore environment and acquire skills.
2. Therapist defines major goals of treatment; provides behavioral objects, choice of activities, support for learning.
3. Treatment setting forms boundaries of environment; encourages free play.

Competence Level:
1. Goal: identify and integrate valued goals and skills into adaptive habit patterns.
2. Therapist provides support to reinforce learning; engages client in collaborative decision making.
3. Treatment setting facilitates establishment of routines and normal standards of performance, through a daily schedule of involvement in a variety of activities.

Achievement Level:
1. Goal: help client acquire successful and flexible role behavior by developing awareness of occupational behavior system, and by identifying community sources of demand and reinforcement.
2. Therapist teaches process underlying successful role behavior and role flexibility.
3. Treatment setting may be home, work, and community environment, with individual or group counseling sessions as needed.

client, or teaching skills that seem essential, only to see the learning collapse because the skills are not part of the client's value system or because the environment fails to support their use.

Exploratory Level
At the exploratory level, the therapist aims at creating a treatment environment that allows for safe and playful exploration. This is accomplished in part by the therapist's direction of activity participation. The client at this level generally cannot accurately report on valued goals or interests, does not have productive daily routines or internalized roles, and has extremely limited basic skills for work, play, and self-care. Thus the therapist must define the goals to be achieved, the routines to be followed, and the skills to be acquired. The "safe" environment required for this level of arousal is the treatment setting itself; supports and rewards are provided by the clinical staff, rather than being sought in the community environment. The following case
illuistrates the application of the case analysis method at the exploratory level.

**Acquiring Basic Skills and Behavior Routines: Barbara.** Barbara is a 16-year-old young woman with a diagnosis of schizophreniform disorder. Data were gathered through a combination of observation, interview, and chart review since she was unable to provide an accurate self-report. Data review guided by the primary questions revealed that Barbara had little experience or hope of success in her daily activities. Her goals were vague and unrealistic; for example, she wanted to return to school soon, but was very confused and withdrawn. She could identify some interests, but had a history of only minimal typing and cooking and no other interests. She was doing poorly in tenth grade at the time of admission and was unaware of the activity requirements of the student role. Her habit patterns revealed lack of orientation to time, and her basic skills were severely limited in all areas; therefore, her behavioral output was characterized by extreme disorganization. However, she was cooperative with staff members and was willing to participate in simple ward activities. Her home physical environment was impoverished, and her family role expectations were socially dysfunctional. The family itself, which included alcoholic members and offered no support for positive change, was disorganized. Barbara had no close friends.

Case analysis revealed no important data gaps. The system trajectory was a vicious cycle; the history of disorganized occupational behavior for both Barbara and her family, and her current lack of skills severely limited the possibility of competent behavior. She lacked simple habits of self-care and time orientation and her cognitive and social skills were profoundly impaired. Historically, she had not internalized her role as a student; there was inadequate differentiation from her family and little social, emotional, or financial support from her environment in the past or at the time of hospitalization. Contextually, the family environment of poverty, alcoholism, and social disorganization constrained skill development and habit formation. Figure 4 summarizes this data review and analysis on the case record form.

The occupational therapy staff determined that the primary treatment issues centered on skill acquisition; therefore, treatment would occur in an environment safe for exploratory learning. Barbara participated in a daily group designed to develop skills for clients with severely disorganized occupational behavior. Treatment goals included acquiring success experiences to increase the sense of personal causation; developing the ability to follow a daily schedule; developing the ability to participate in parallel groups; and acquiring the basic skill of following one-step and two-step activities.

When Barbara was ready to leave the treatment group, she could answer concrete questions about her interests and, with reminders, attend to a daily schedule. She could engage in adequate self-care in the hospital environment and could imitate familiar exercises in the group setting. Ideally, at this point, treatment would have continued at the competence level, identifying realistic goals and environmental supports outside the hospital setting; however, funding for inpatient treatment was terminated, and Barbara's family did not bring her back to the hospital outpatient program for further treatment. Although this case has a disappointing outcome, the early course was satisfactory and suggests that continued treatment could have resulted in the development of additional skills and stable habit patterns. This problem of insufficient followthrough in treatment should encourage occupational therapists to develop community-based programs for continuing treatment of individuals like Barbara.

**Competence Level**

At this level of treatment, the client is seeking competence through the establishment of satisfying routines. Primary treatment issues include identification of valued goals and interests and their integration into everyday activity. The therapist provides substantial support for the client as he or she undertakes this process. The client engages in multiple activities in the treatment facility and, eventually, the community; these activities are designed to reinforce the acquisition of competent behavior routines.

Treatment at this level presupposes that the client can offer a moderately accurate self-report regarding his or her own feelings, thoughts, time use, and home environment. Given this basis, the therapist and client work collaboratively to assess the client's valued goals, skills, expectations, and support systems, and to incorporate them into the overall pattern of occupational behavior. The following case illustrates this level of case analysis.

**Anticipating Success in Role Transitions: Sam.** Sam is a 58-year-old man with a diagnosis of major depressive disorder with a possible organic basis. He was admitted to the inpatient psychiatric unit because of an inability to function in...
**Figure 4**
Casework summary: Barbara

Data Gathering (instruments, comments):
16 y/o, f, dx schizophreniform disorder.
Chart review, observation in group, interview.

<table>
<thead>
<tr>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Question</strong></td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>1. Personal Causation</td>
</tr>
<tr>
<td>2. Valued Goals</td>
</tr>
<tr>
<td>3. Interests</td>
</tr>
<tr>
<td>4. Internalized Roles</td>
</tr>
<tr>
<td>5. Habit Patterns</td>
</tr>
<tr>
<td>6. Skills</td>
</tr>
<tr>
<td>7. Output</td>
</tr>
<tr>
<td>9. Input</td>
</tr>
<tr>
<td>10. Feedback</td>
</tr>
</tbody>
</table>

**System Analysis**
*Dynamic:* Extremely disorganized in all areas of occupational behavior. Severely constrained by current lack of basic skills for successful occupational behavior; lacks basic habits of self-care and time orientation.
*Historical:* Has not internalized role as student; inadequate differentiation from family; little social, emotional, or financial support from environment over time.
*Contextual:* Family environment of poverty, alcoholism, social disorganization constrains skill development and habit formation.
*System Trajectory:* Vicious cycle; history of disorganized occupational behavior both for individual and her family, and current lack of skills severely constrains possibility of successful occupational behavior.
*Treatment emphasis:* Acquiring basic skills and behavior routines.

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his job as a painter of downtown store displays. He was referred to occupational therapy for assessment of his skills and quality of performance. He was evaluated by using the Occupational History, Activity Configuration, and Purdue Pegboard Test of Fine Motor Dexterity. He performed equally bilaterally on the Purdue, with low scores that were within normal limits. Data review showed that Sam had felt effective and satisfied in his work and leisure roles until surgery 1 year earlier, after which he became progres-
**Figure 5**

*Case summary: Sam*

**Data Gathering (instruments, comments):**
- Client: SAM
- Therapist: Date: 
- 58 y/o, m, dx major depressive disorder, possible organic basis. Occupational History, Activity Configuration, Purdue Pegboard

<table>
<thead>
<tr>
<th>Primary Question</th>
<th>Model Element</th>
<th>Influence</th>
<th>Comments</th>
<th>Info. Needed</th>
<th>Treatment Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Personal Causation</td>
<td></td>
<td>✓</td>
<td>Felt unsuccessful since prostectomy 1 yr. ago; expects failure; father died at age 58.</td>
<td></td>
<td>Acquire success experiences.</td>
</tr>
<tr>
<td>2. Valued Goals</td>
<td></td>
<td>✓ ✓</td>
<td>History of successful goal-directed behavior; goals job-related.</td>
<td></td>
<td>Leisure goals.</td>
</tr>
<tr>
<td>3. Interests</td>
<td></td>
<td>✓ ✓</td>
<td>Interests support work behavior and marriage; few social or recreational.</td>
<td>✓</td>
<td>Social &amp; leisure interests.</td>
</tr>
<tr>
<td>4. Internalized Roles</td>
<td></td>
<td>✓</td>
<td>Worker (display painter); husband.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Habit Patterns</td>
<td></td>
<td>✓ ✓</td>
<td>Long stable work history and family activity; current disorganization.</td>
<td></td>
<td>Re-establish routines.</td>
</tr>
<tr>
<td>6. Skills</td>
<td></td>
<td>✓ ✓</td>
<td>Adequate for current roles; manual dexterity normal; few leisure skills.</td>
<td></td>
<td>Leisure skills.</td>
</tr>
<tr>
<td>7. Output</td>
<td></td>
<td>✓</td>
<td>Stopped working; depression and withdrawal.</td>
<td></td>
<td>Use skills.</td>
</tr>
<tr>
<td>8. Environment</td>
<td></td>
<td>✓</td>
<td>Supports successful occupational behavior.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Input</td>
<td></td>
<td>✓ ✓</td>
<td>Can meet social requirements now, but anticipates failure with role change to retirement.</td>
<td>✓</td>
<td>Retirement role.</td>
</tr>
<tr>
<td>10. Feedback</td>
<td></td>
<td>✓</td>
<td>Supportive wife, boss, coworkers; few friends.</td>
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</tr>
</tbody>
</table>

**System Analysis**

Dynamic: Client has skills, habit patterns, interests, and values to support current work and family roles; he fears performance failure and fears the future.

Historical: History of successful role transitions and role performance. Unprepared for role transition to retirement.

Contextual: Environment supports use of skills and feelings of competence, and will probably support transitions; however, he has few friends outside of work.

System Trajectory: Benign cycle until 1 year ago when health was threatened and client began spiral of negative expectations. Presently a vicious cycle centering on expectation of failure.

Treatment emphasis: Anticipating success in role transitions.
sively more despondent. His values, time use, and skills were still adequate to support his work as a painter. However, he was severely self-critical and fearful; he anticipated failure at every turn, and, in fact, expected to die in the near future (his father had died at the age of 58). In addition, he had few friends and leisure interests; however, his wife and coworkers were supportive.

Analysis of the case data revealed a need for more information about interests and expectations for retirement. In terms of system dynamics, Sam had the skills, habit patterns, interests, and values to support his current work and family roles, but feared performance failure and feared the future. Historically, his role transitions and role performance were good; he valued working and felt that his painting was a God-given talent. He was, however, unprepared for the role transition to retirement. Contextually, his environment supported his use of skills and feelings of competence, and would probably support transitions, but he had few friends outside his work. In summary, the system trajectory was benign until the preceding year when his health was threatened and a spiral of negative expectations began. At the time of his hospitalization, there was a vicious cycle centering around expectation of failure. Figure 5 summarizes this case analysis.

Treatment encouraged restoration of work habits through requiring a daily schedule of work, play, and self-care activities that Sam helped to choose. Treatment was directed at restoring Sam’s sense of competence through successful completion of meaningful tasks and participation in social groups with supportive feedback. In addition, he developed routines that incorporated leisure values and interests in anticipation of retirement. He responded well to these experiences and was discharged to return to his work and continued development of new leisure interests.

This case illustrates the importance of daily habit routines in a client’s sense of personal causation and the importance of identifying valued goals, skills, and interests in these routines.

The Achievement Level

The client who can identify valued goals and interests, and who has most of the skills necessary to pursue them, can assume responsibility for his or her daily schedule of activity. Such a client has acquired competence in basic behavior routines; it remains for the client to integrate these routines into a satisfying occupational role. An occupational role organizes occupational behavior into routines that satisfy the individual’s values regarding work, play, and self-care; it also satisfies the standards of the social environment. The achievement of a satisfactory occupational role reflects successful engagement with the problem-solving process outlined in the flow chart (Figure 3). The occupational therapist’s task at this level is to teach this process that underlies successful occupational role behavior and role flexibility. The aim is for the client to develop awareness of his or her own volition, habituation, and performance subsystems, and to learn to identify and use sources of rewards and reinforcements in the community environment.

Achievement and Satisfaction

Outside Work Roles: Alice. Alice is a 30-year-old woman referred with a diagnosis of depressive neurosis following a suicide attempt after a broken engagement. Before the suicide attempt, she was completing a master’s degree in teaching. She was referred to occupational therapy after 6 months of psychotherapy so that she could organize a resume and find a more satisfactory occupational role. The therapist interviewed her, using the Occupational History. Data review revealed that she did not anticipate success in changing work roles to a job she valued more highly; however, her substantial work skills became clear to her as she wrote the resume and reviewed her earlier job performance. In addition, she did not anticipate success in social interactions and had few leisure skills or interests. When work demands were slack, she responded by overeating, withdrawing, and staying at home in bed. She lived alone and lacked social supports for enjoyment of leisure time.

Analysis of this case suggested that more information was needed about leisure goals, interests, activities, and social skills. Alice was in danger of re-entering a vicious cycle because she was focusing on her work performance to the exclusion of her other needs. She was satisfying external occupational role demands, but lacked a strong sense of personal effectiveness outside of work settings. Alice was aware of her own work-oriented values and goals; she had the skills necessary to pursue them, and her daily activity pattern evidenced a high level of work performance. Historically, she had felt effective only when she was overworking with little free time to pursue leisure interests or social activities. Consequently, she had no friends or hobbies to enhance her sense of personal causation when work was less demanding. Figure 6 records this case analysis.

The appropriate level of treatment for Alice required activating the desire for achievement. The
### Figure 6
Case summary: Alice

Data Gathering (Instruments, comments):
- Client: ALICE
- 30 y/o, f, dx. depressive neurosis.
- Occupational History, resume, observation in group

**Therapist:** [Name]

**Date:** [Date]

<table>
<thead>
<tr>
<th>Data Analysis</th>
<th>Influence</th>
<th>Comments</th>
<th>Info. Needed</th>
<th>Treatment Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Question</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Model Element</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Influence</strong></td>
<td>+</td>
<td>Does not anticipate success when changing jobs or in leisure activity.</td>
<td></td>
<td>Acquire success</td>
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<tr>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td>experiences</td>
</tr>
<tr>
<td>1. Personal Causation</td>
<td>✓</td>
<td>Activity did not reflect her values; no leisure goals.</td>
<td>✓</td>
<td>Leisure goals</td>
</tr>
<tr>
<td>2. Valued Goals</td>
<td>✓</td>
<td>Entirely work related.</td>
<td>✓</td>
<td>Leisure interests</td>
</tr>
<tr>
<td>3. Interests</td>
<td>✓</td>
<td>“Workaholic” role; perfectionist.</td>
<td>✓</td>
<td>Leisure activities</td>
</tr>
<tr>
<td>4. Internalized Roles</td>
<td>✓</td>
<td>Adequate at work; at home overeats, withdraws, stays home when stressed.</td>
<td></td>
<td>Alter routines</td>
</tr>
<tr>
<td>5. Habit Patterns</td>
<td>✓</td>
<td>Very high level of work skills; few leisure skills; hesitant to initiate social contacts.</td>
<td>✓</td>
<td>Leisure and social skills.</td>
</tr>
<tr>
<td>6. Skills</td>
<td>✓</td>
<td>Works two jobs; no social or leisure activities.</td>
<td></td>
<td>Social activities</td>
</tr>
<tr>
<td>7. Output</td>
<td>✓</td>
<td>Successful school and work performance. (Anticipates social rejection.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Environment</td>
<td>✓</td>
<td>Not restrictive, but lives alone.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System Analysis**

- Dynamic: Work-oriented values and goals supported by skills; unbalanced activity pattern with very few leisure and social activities.
- Historical: Competent but feels effective only when overachieving. Engagement broken by fiancée, followed by fear of initiating social contacts.
- Contextual: Few friends or hobbies to enhance sense of personal causation when under stress.
- System Trajectory: In danger of re-entering vicious cycle because focused on work to exclusion of other needs.
- Treatment emphasis: Achievement and satisfaction outside of work roles.
primary goal of occupational therapy was to increase her sense of personal causation and her knowledge of the model of human occupation as it pertained to her. She participated in an outpatient group focused on work roles, on the occupational choice process, and on establishing satisfactory patterns of work, play, and self-care. With the resulting increased awareness and support, she was able to develop a group of friends in the community. She began to identify past interests that she wanted to renew, and she began dating again. Her case typifies the achievement level of learning: she developed awareness of her own work and leisure needs and acquired some role flexibility as she incorporated leisure skills into her occupational behavior. She chose her own activities; the therapist provided information and reinforcement for her choices.

Summary
A method of case analysis based on the model of human occupation has been proposed. Ten primary questions guide the summary of data and treatment goals corresponding to the elements of the model. Cases were presented that briefly illustrated the application of this method at three treatment levels: exploratory, competence, and achievement.

Several tasks are associated with future use of this case analysis method. First, assessment tools must be identified and, in some cases, developed to yield information directly relevant to each of the primary questions. Second, a data base must be built that includes adaptive as well as maladaptive functioning. Third, the data base must be examined to identify which questions and which assessment techniques are most fruitful in predicting and describing benign and vicious cycles. Fourth, it will be worthwhile to determine whether certain patterns of constellations of dysfunctional occupational behavior accompany specific diagnoses. Finally, it will be necessary to identify and refine treatment techniques that are the most effective in the acquisition and/or restoration of benign cycles of occupational behavior.

As clinicians use this case analysis method to examine evaluation techniques, build a data base, identify patterns of function and dysfunction, and assess treatment techniques, they will also refine the theory upon which it is based. Questions asked in the clinic about the usefulness of data and the quality of client care are the foundation of the profession. The model of human occupation is intended as a model for practice; its usefulness and vitality can only be assured through the organized questioning, testing, and revision that arise from clinical applications.

REFERENCES