The Community Adaptive Planning Assessment: A Clinical Tool for Documenting Future Planning With Clients

Jean Cole Spencer, Harriett A. Davidson

Key Words: patient discharge • planning process, occupational therapy • qualitative method

Objectives. The objectives of this article are to (a) identify features needed in a clinical tool in order to organize collaborative planning for the future between therapist and client; (b) describe the structure and procedures for use of the Community Adaptive Planning Assessment (CAPA), which was developed to meet these needs; (c) summarize research on the usability, trustworthiness, and clinical effectiveness of the CAPA; and (d) consider future work to further evaluate qualitative tools like the CAPA for clinical and research purposes.

Method. Initial and revised versions of the CAPA were evaluated through several studies. Usability was examined through questionnaires completed by therapists who used the CAPA in acute care, rehabilitation, home health, and community programs with a total of 105 clients who had a variety of acute and chronic disabilities. Trustworthiness was evaluated through comparison of information gathered from 21 clients with that from their family members. Clinical effectiveness was evaluated for discharge planning through content analysis of community outcomes of goals and plans established before discharge.

Results. Initial studies indicate that the CAPA has sound usability, trustworthiness, and clinical effectiveness for a variety of service delivery systems and with a variety of clients when used by experienced therapists. Findings support use of these three criteria for evaluation of tools designed to document qualitative consultation-based practice.

Conclusions. Results are related to broader issues in the profession, including a need for further study of collaborative planning for the future between clients and therapists, ways in which qualitative aspects of practice can be documented efficiently, ways in which outcomes of consultation-based practice can be evaluated, and establishment of criteria for evaluation of emerging qualitative assessments and intervention tools.

Collaborating with clients in planning for the future has been identified as a crucial aspect of practice in the clinical reasoning literature (Mattingly & Fleming, 1994; Rogers, 1983). Growing use of client narratives in practice emphasizes the clinical importance of helping clients connect their futures to their past life stories (Clark, 1993; Frank, 1996a; Helfrich & Kielhofner, 1994; Helfrich, Kielhofner, & Mattingly, 1994). Ability to imagine a meaningful future has been identified as a foundation through which persons can activate their resilience and will to survive major life difficulties (Antonovsky & Sagy, 1986; Colerick, 1985; Fine, 1991; Kobasa, 1982; Spencer, Davidson, & White, 1997).

Yet, although many therapists clearly recognize col-
laboration with clients in anticipating the future as central to practice as well as being a requirement of many accrediting agencies (Commission on Accreditation of Rehabilitation Facilities, 1992; Joint Commission on Accreditation of Healthcare Organizations, 1992), recent studies suggest that future planning frequently receives rather perfunctory attention and reliance on short-hand standardized documentation formats. This finding is supported by research on how goals are established with performance contexts and their impact on client occupations and round of occupations in daily life settings as being central to human health (Bing, 1981; Kielhofner & Burke, 1977; Meyer, 1922/1977). This emphasis is also reflected in the broader literature on models of disablement, which, although terminology is inconsistent between models, all contain a level that addresses participation in daily life tasks and social roles as the ultimate goal of health and social services for persons with disabilities (Nagi, 1965; Pope & Tarlov, 1991; Verbrugge & Jette, 1994; World Health Organization, 1980). Despite widespread inclusion of this level in models of disablement, there are relatively few assessment tools and a limited body of research that document participation in community life by persons with disabilities (Whiteneck, 1994). A few such tools have existed since the 1970s, as exemplified by the Older Americans Resources and Services methodology (Duke University Center for the Study of Aging & Human Development, 1978) and the Rehabilitation Indicators (Brown, Gordon, & Diller, 1984), with recent development of a few additional tools, such as the Craig Handicap Assessment and Report Technique (CHART) (Whiteneck, Charlifue, Gerhart, Overholser, & Richardson, 1992) and Community Integration Questionnaire (CIQ) (Willer, Rosenthal, Kreutzer, Gordon, & Rempel, 1993). However, these assessments are intended to document the community-living status of a person at a particular point in time. Although potentially useful for goal setting, planning, or problem solving with clients in service delivery settings, structured formats for clinical intervention are not built into the tools.

Longitudinal Orientation That Connects the Future to Past Experience

A method for documenting clients’ past experience and abilities that can be built upon in imagining possibilities for the future is needed in a future-planning tool. A body of research based on continuity theory (Atchley, 1989; Becker, 1993), as well as studies based on disability trajectory theory (Corbin & Strauss, 1987), clearly indicate that people seek to maintain connections between their past and future after major disruptions due to onset of disability. The importance of continuity with the past is also emphasized in the narrative literature in which persons who engage in rewriting their life stories after major life changes seek to identify and maintain connections between past experience and anticipated future directions (Bury, 1982; A. Frank, 1994; G. Frank, 1996a; Kaufman, 1988).

The concept of adaptation has been used in occupational therapy to examine both short-term processes of managing various kinds of challenges or major life disruptions (Frank, 1996b; Gilfoyle, Grady, & Moore, 1990; King, 1978; Schkade & Schultz, 1992) and a long-term...
evolving process that is cumulatively based on past experience over a lifetime (Kielhofner, 1977; Meyer, 1922/1977; Reilly, 1974; Spencer, Davidson, & White, 1996). Montgomery (1984) identified adaptive resources that are provided, in part, by past experience; Frank (1996b) examined adaptive strategies that are based on past experience as part of a person-centered adaptive system; and Spencer et al. (1996) conceptualized past experience as an adaptive repertoire that persons can draw on in planning for the future. However, clinically practical ways of assessing and documenting adaptive resources, strategies, or repertoires on the basis of clients' past experience have not been established.

Focus on Occupational Performance

Many leaders in occupational therapy have asserted the need to maintain a focus on occupation as the central organizing idea on which the profession is based (Christiansen & Baum, 1991; Clark et al., 1991; Kielhofner, 1992; Meyer, 1922/1977; Nelson, 1988; Reilly, 1962; Shannon, 1977; Yerxa, 1967). In addition to the importance of the concept of occupation in the theory and philosophy of the profession, Trombly (1993) articulated important advantages of a practice approach that is based on occupational function in contrast to emphasis on performance components alone. These advantages include clients' clearer understanding of how the work they do in therapy is related to their daily lives, which leads to more active engagement in the process and greater likelihood that the knowledge and skills taught during therapy will actually be used when the clients return home.

Future planning focused on occupational performance involves both emphasis on particular occupations and how they can be performed in the future and consideration of the overall constellation of occupations that the person routinely practices and how changes in one area might influence others. At a conceptual level, the notion of balance is frequently incorporated in considering a person's overall set of occupations, although a desirable balance has been difficult to identify (Christiansen, 1996). Other ways of conceptualizing one's overall constellation of occupations have included routines and habits that connote the establishment of recurring patterns in which occupations are enacted over time (Kielhofner, 1977, 1995; Meyer, 1922/1977).

Consideration of Performance Contexts

Occupational performance contexts were established as a third domain in the Uniform Terminology for Occupational Therapy (American Occupational Therapy Association [AOTA], 1994) in addition to the previously existing domains of occupational performance areas and occupational performance components. The establishment of environmental context as a concern of occupational therapy recognizes the powerful influence that physical and social settings have on the opportunities and limitations for enacting occupations for all persons. The nature of interactive processes between persons and environments may change considerably with onset of disability, making this area of future planning particularly crucial.

The occupational therapy literature includes alternative ways of conceptualizing the environmental contexts in which occupational performance occurs (e.g., Barris, Kielhofner, Levine, & Neville, 1985; Dunn, Brown, & McGuigan, 1994; Howe & Briggs, 1982). These conceptualizations typically identify physical, social, and cultural dimensions of environments that shape occupational performance, such as objects and spaces; social dyads and groups; and settings in which occupations and their meanings are shaped by culture, including homes, workplaces, or classrooms. They also typically distinguish between environments of different scale or size, including immediate environments, such as a computer workstation; proximal environments, such as a work or leisure setting; community environments, such as a shopping and restaurant region; and societal scale environments, such as long-distance transportation systems. These environmental dimensions and scales are described in more detail in Davidson (1991) and Spencer (in press). Several models of practice in occupational therapy identify the environment as an important influence on occupational performance (Dunn et al., 1994; Gilfoyle et al., 1990; Kielhofner, 1995; Schkade & Schultz, 1992), but they do not articulate the features of environments at the level of detail specified for person systems.

Examination of the Meaning of Occupations

Meaning is an elusive concept that has been incorporated since the founding of the profession in the beliefs about what makes engagement in occupation therapeutic (Kielhofner, 1992; Trombly, 1995). The nature of meaning and how it is constituted often includes both shared cultural meanings and personal idiosyncratic meanings that are based on individual life experience (Nelson, 1988; Sharrott, 1985). In recent years, narratives have been identified as an important method by which people attribute meaning to life experience and as a medium through which these meanings are communicated to others (Clark, 1993; Frank, 1996a; Helfrich et al., 1994; Helfrich & Kielhofner, 1994). Consideration of the meaning of occupations is important for future planning with clients both as an indicator of possible directions that will engage the client's will to deal with difficult circumstances in order to reach valued goals and as an indicator of priorities for therapeutic intervention.
Availability of These Features in Existing Assessments

Instruments for assessing degree of participation in community life, such as the CHART and the CIQ, are indicators of current status rather than clinical tools for goal setting or future planning. In occupational therapy, several frameworks for planning consultative intervention in community practice with specific types of clients have been developed, but the formats for documenting interventions and outcomes are tailored for particular programs and are not intended to be applicable across service delivery contexts (Corcoran & Gitlin, 1992; Neistadt, 1987).

For incorporating a longitudinal perspective on how future planning evolves from past experience, there are several tools in occupational therapy that assess relevant aspects of a client’s history, such as the Play History (Takata, 1969), Role History (Florey & Michelman, 1982), and Occupational Performance History Interview (OPHI) (Henry & Kielhofner, 1989). Although they provide valuable information about what has been present and lacking in the client’s prior experience, these tools generally do not provide a structure for organizing future planning but instead rely on the therapist’s clinical judgment to derive future goals from an overall interpretation of the findings.

Assessments of occupational performance at the level of single occupations or performance areas are available in the domains of work (Velozo, 1993), play (Bundy, 1993), and instrumental and basic activities of daily living (ADL) (Law, 1993). Activity configurations have been used to document how time is allocated to the entire set of occupations a person regularly practices (Christiansen, 1996), but the OPHI and a related tool, the Occupational Case Analysis Interview and Rating Scale (Kaplan & Kielhofner, 1989), appear to be the only tools that seek to assess a client’s ability to manage this constellation of occupations as an integrated whole through their attention to habits and routines.

A variety of tools are available for assessing occupational performance contexts, including their physical, social, and cultural dimensions as identified in the Uniform Terminology. Letts et al. (1994) reviewed tools that are based on classic measurement theory, whereas Davidson (1991) and Spencer (in press) have reviewed a broader variety of tools, including those based on experimental, survey, behavior observation, and ethnographic traditions. However, these tools generally do not include methods for problem solving or future planning with individual clients, with a few exceptions that do incorporate this planning feature, such as the Negotiability Survey (Bates, 1994), the Assistive Technology Evaluation Process (Cook & Hussey, 1995), or the Ethnographic Assessment Process for Occupational Therapy (Spencer, Krefring, & Mattingly, 1993). A few tools, such as the OPHI and Worker Role Interview (Velozo, Kielhofner, & Fisher, 1990), assess the supportiveness of the environment in general for client adaptation, although these do not identify particular environmental features for intervention nor examine how particular contexts affect performance of specific occupations.

Finally, the meaning of occupations has generally been assessed in practice through narratives or other interview processes (Clark, 1993; Helfrich et al., 1994). However, these cannot be readily translated into future planning or documentation systems.

In summary, there are existing tools that provide a few (and in some cases, most) of the features we consider fundamental in a tool for structuring and documenting collaborative future planning with clients. The OPHI appears to most closely match this set of features because of its focus on community life, past experience as groundwork for future planning, ability to manage an overall round of occupations, the impact of the human and nonhuman environment on the client’s adaptation, and the client’s values. However, the OPHI does not examine particular occupations or the importance of specific features of the environmental contexts in which they are performed. The Canadian Occupational Performance Measure (COPM) (Law et al., 1994) examines specific occupations targeted by the client for attention in areas of self-care, productivity, and leisure and clearly addresses the importance the client attaches to these selected occupations. However, the COPM focuses on occupational performance problems without examining occupations the client finds rewarding and the support systems that make them possible.

We believe that an additional assessment is needed that combines the features identified previously in a single tool, organizes evaluation of past experience and future planning and problem solving at the level of individual occupations and the specific environmental contexts in which they occur, and considers the overall constellation of occupations regularly practiced by the client. A future-planning tool that meets these needs should also incorporate the therapist’s judgment about the extent to which the client is able to follow through in implementing plans independently, which would lead to recommendations about kinds of support that may be needed in the future. Such a tool would offer the potential to document many of the qualitative aspects of practice that have been identified as crucial components of clinical reasoning but that are typically not written or spoken about explicitly in most clinical settings (Mattingly & Fleming, 1994). Documenting these qualitative aspects of practice in clinically efficient ways that can also be used in outcome studies may help to more clearly demonstrate to clients, family members, other professionals, and ourselves the nature of
what occupational therapy contributes to the lives of persons with disabilities.

Organization and Use of the CAPA

The assessment tools commonly used in occupational therapy are based on four different assessment traditions that follow somewhat different instrument development processes (Spencer, in press). These traditions include (a) the experimental tradition, which is based on performance of standardized tasks with a high degree of examiner control over the testing situation; (b) the behavior observation tradition, which documents naturally occurring behavior in “real world” settings, using time sampling procedures; (c) the survey tradition, which uses written or oral questionnaires to document respondents' self-reported practices or opinions, and (d) the qualitative tradition, which uses participant observation and in-depth interviews to capture an “insider’s perspective” on activity and its meaning. The CAPA is primarily a qualitative tool intended to efficiently structure and document many of the aspects of practice that are frequently not captured in standard quantitative clinical documentation systems.

The CAPA focuses on individual occupations and the social and geographic contexts in which they are regularly performed as the fundamental unit of analysis. For each major occupation, qualitative information is gathered through interview questions and recorded on a separate card. Use of separate cards for each occupation permits alternative arrangement of occupations to facilitate preparation of a summary report that provides an integrated picture of the client’s overall constellation of occupations. The left-hand column of each occupation card indicates basic types of information documented about each occupation, including (a) the activities the client includes in this occupation and the times it is regularly performed, (b) the persons with whom it is done and the nature of their roles in the performance, (c) physical and cultural aspects of the environmental context in which the occupation is performed and how the client gets to this setting, and (d) reasons for which the occupation is valued by key persons.

Across the top of each occupation card are three more columns: the Previous Status column, the Expected Changes column, and the Outcomes column. The Previous Status column is used to record how the client performed the selected occupation before the time of the evaluation and onset of the problem that brought the client to therapy. The Expected Changes column is used to record expected losses and gains in how the occupation might be performed in the future. Expected losses include such limitations as new disabilities that interfere with execution of activities involved in the occupation, loss of an important support person, environmental features that are no longer negotiable by the client, and valued experiences that would be lost if the occupation could no longer be performed. Expected gains documents collaborative problem solving to identify alternative possibilities for performing the occupation with modifications or new forms of assistance or ways in which the value of this occupation could be preserved through other kinds of experience. Expected gains can be written as structured goals that permit reimbursement of intervention and follow-up studies of treatment outcomes.

The Expected Changes column represents the heart of the collaborative future-planning process between therapist and client. Interactive examination of expected losses and gains is congruent with a definition of hope as “a dialectic between limits and possibilities” (Kegan, 1982, p. 45) that allows the therapist and client to acknowledge difficulties and losses associated with the occupation, while, at the same time, identifying positive options for the future. Research with the CAPA has shown that this aspect of the future-planning process often evokes conversation about the emotional, spiritual, and cognitive aspects of the development of hopes for the future (Spencer et al., 1997).

The Outcomes column documents the extent to which future plans and goals were met, permitting follow-up studies of treatment outcomes in the community. In follow-up research with the CAPA, content analysis led to identification of seven kinds of outcomes that later were broadly categorized as “goal met as documented,” “accommodation in goal by client and family,” and “goal unmet and abandoned.” (These findings are reported in greater depth later in the discussion of clinical effectiveness of the CAPA.) Attainment of goals identified through the CAPA planning process could potentially be evaluated in a more fine-grained way through use of a structured process, such as goal attainment scaling (Ottenbacher & Cusick, 1990, 1993).

In addition to narrative information about a client’s major occupations, the CAPA also includes four rating scales that may be used to document quantitatively the client’s opinions about selected aspects of each occupation. These ratings use a scale of 1 to 10, with 1 being low and 10 being high. The client is asked to rate (a) satisfaction with the amount of time spent performing the occupation; (b) satisfaction with the degree of his or her active participation versus others’ performance of aspects of the occupation; (c) negotiability of the environmental context, which includes ability to understand and interact effectively with features of the setting; and (d) importance of continuing this occupation. The ratings have proven
useful in documenting change over time in client perceptions and in prioritizing those occupations most important to target for intervention. However, the ratings are optional because the Likert scale has been difficult to understand for some clients.

The CAPA interview process begins with collection of the client's personal information, his or her living arrangements and sources of social support, health problems and disability information, income and support for health care expenses, and self-reported coping style. (This information may already be known to the therapist through prior assessments or information in the client's chart that can be transferred to CAPA form.) Discussion of the client's occupations is organized by means of an occupational hierarchy that involves broad occupational performance areas (work, leisure, household management, self-care, rest) when the CAPA is used as a screening tool and a more detailed listing of specific occupations within each of these performance areas when the CAPA is used for more thorough evaluation and future planning. The therapist's clinical judgment is important in deciding which occupations to examine in depth. In general, it is important to focus attention on those occupations in which change is expected in the future because of onset of disability or loss of support systems and on those in which the client would consider loss of the occupation as major. Common sense and time constraints dictate that not every occupation need be examined with equal thoroughness.

The interview questions are provided in a format that matches the structure of the occupation cards. The therapist can keep at hand this set of questions when talking with the client. As a qualitative tool, the CAPA does not depend on precise wording of questions using standardized language, so the therapist can modify the wording as needed to facilitate interaction with the client.

Preparation of reports that integrate information from the CAPA can be organized according to a Community Adaptive Planning Report format (see Appendix). In particular circumstances, the report format could vary to serve specific purposes, such as referral of the client to a support service agency in which needs for specific support services are highlighted.

Report completion involves synthesizing key information from individual occupation cards and recording scores on the four quantitative rating scales, if these have been used. It also involves looking at the client's ability to manage his or her overall set of occupations, developing a concise description of his or her social network and personal geographic territory, and identifying those occupations that would be hardest and easiest for him or her to give up after onset of disability. In addition, the report format prompts the therapist to document the degree of client involvement in the collaborative planning process, the amount of support that the client might need to follow through with implementation of plans, and the client's ability to see connections between current therapy interventions and future plans. The therapist's judgment about the accuracy of the client's reporting is also recorded. The report ends with a concise list of major goals and kinds of support needed to reach them. A case study that illustrates use of the CAPA for discharge planning with a client in rehabilitation after a stroke can be found in Spencer et al. (1997).

Research on Usability, Trustworthiness, and Clinical Effectiveness of the CAPA

As an assessment in the qualitative tradition, the process by which the CAPA has been developed and evaluated has differed in some respects from the process that would be expected for development of a standardized instrument in the experimental or survey traditions (Benson & Clark, 1982). Although the effort to develop qualitative assessments is a relatively recent occurrence in clinical fields, such as nursing and occupational therapy, there are some precedents that are useful in identifying important issues for consideration. These issues include (a) usability, which refers to how understandable and practical the instrument is to use; (b) trustworthiness, which refers to how accurately information is reported and recorded (this is related to reliability and validity in quantitative tools); and (c) clinical effectiveness, which refers to whether the gathered information contributes to useful interventions.

Work on the CAPA has involved a sequential process intended to address these issues. Major steps in the process have been as follows:

1. Identification of content to be included in a community-oriented future-planning tool through literature review and preparation of Research Version 1 of the assessment
2. Evaluation, by professional master's degree students and practising therapists, of the practical usability of Research Version 1 with 30 clients with stroke in acute care, short-term and long-term rehabilitation, and home health service delivery settings
3. Evaluation, by a team of experienced therapists recruited nationally through the American Occupational Therapy Foundation (AOTF), of the clinical effectiveness of the CAPA for discharge planning during rehabilitation, which included 3-month community follow-up of intervention outcomes
4. Evaluation of the trustworthiness of information gathered from clients by comparing it with infor-
mation gathered from their family members through both joint client–family interviews and separate interviews with clients and family members.

5. Preparation of Research Version 2 on the basis of experience from these studies.

6. Evaluation, by professional and postprofessional master's degree students in collaboration with practicing therapists, of the usability of Research Version 2 with 75 clients who had a variety of acute and chronic physical disabilities, including spinal cord injury (24), arthritis (12), multiple sclerosis (10), Parkinson's disease (10), and stroke (19).

7. Evaluation of the clinical effectiveness of Research Version 2 to provide an adaptation-based intervention to elderly persons in a transitional unit, including follow-up research on intervention outcomes (currently in progress).

8. Preparation of a clinical version that incorporates minor modifications in Research Version 2 and adds a more structured reporting format (now available for dissemination).

Results of these studies of usability, trustworthiness, and clinical effectiveness are summarized here in condensed form. The goal is to provide a conceptual overview of the line of work involved in developing this qualitative tool rather than giving detailed accounts of each specific research project included in the process.

Usability

In general, usability is an important issue in organizing a qualitative data collection and documentation process that provides relatively concise information on predetermined topics of interest while allowing the client to tell things from his or her own perspective. Usability has been addressed in studies with each version of the CAPA, using questionnaires that ask therapists and students to report on problems and valuable features of the tool. In these studies, therapists found that the CAPA identifies and integrates information needed for discharge planning not collected through other tools that they were using and that it targets important topics for exploration that are often neglected in typical discharge planning, such as ways clients can negotiate specific community settings, like restaurants, in which valued occupations occur. In general, usability is an important issue in organizing a qualitative data collection and documentation process that provides relatively concise information on predetermined topics of interest while allowing the client to tell things from his or her own perspective. Usability has been addressed in studies with each version of the CAPA, using questionnaires that ask therapists and students to report on problems and valuable features of the tool. In these studies, therapists found that the CAPA identifies and integrates information needed for discharge planning not collected through other tools that they were using and that it targets important topics for exploration that are often neglected in typical discharge planning, such as ways clients can negotiate specific community settings, like restaurants, in which valued occupations occur. In addition, the CAPA is reported to structure an organized clinical reasoning process that leads to orderly documentation of future plans in ways that do not occur through informal qualitative conversations with clients. The CAPA has been found to be usable with a total of 105 clients with various disabilities in several different service delivery settings, including acute care, rehabilitation, home health, and community support programs. Most therapists have stated that the qualitative information gathered through the CAPA is more useful than quantitative data on time use and other variables that were included in the initial version. This finding has led to greater emphasis on qualitative information in the revised CAPA and elimination of most quantitative information, except the four optional rating scales described previously.

One ongoing concern in all studies of the CAPA has been the time requirements for using this tool in a health care system that places tight constraints on availability of time. Depending on the degree of detail with which occupations are examined, use of the CAPA as a whole takes from 30 min to 90 min, with 45 min to 1 hr being typical. With experience, therapists reported becoming more efficient in use of the CAPA and in prioritizing those occupations that need to be examined thoroughly. They also reported being able to gather information during other aspects of therapy over more than one session, recording and consolidating the information over time rather than through a single interview. In our view, the issue of time use can be considered in terms of trade-offs between direct hands-on therapy versus consultation and models of service delivery. In an era in which time for service delivery is often stringently limited, consultation and future planning of the sort organized by the CAPA are regarded in many areas of practice as more productive and potentially more influential uses of time than hands-on therapy.

Trustworthiness

In general, trustworthiness involves considering the accuracy or believability of the gathered information. This issue is important when one is relying on the clients' self-report information in contrast to performance tests (Rogers, Holm, Goldstein, McCue, & Nussbaum, 1994). It may be particularly important with some clinical populations, such as persons with central nervous system or psychiatric disorders. The concept of trustworthiness is well established in the qualitative research tradition as a quality that is achieved primarily by checking for consistency of information from more than one source. Trustworthiness is thus related to reliability and validity in the quantitative tradition, which are typically evaluated by checking for consistency of numerical scores (Krefting, 1991). Although qualitative assessments are intentionally designed to capture the client's perceptions or interpretations, which may differ from perceptions of other persons, the degree of accuracy of reported information becomes important when future plans are based on client reports of past experience and relevant skills.

In developing the CAPA, trustworthiness has been examined by comparing information from clients with
information from their family members. One method of making this comparison used with Research Version 1 was to conduct interviews in settings where both clients and family members were present. This was done with Hispanic elderly persons with stroke and their family members whose backgrounds suggested that decision making was often done collaboratively as a group rather than by individuals. In this unpublished study, careful notation was made of the perspectives of different participants in the collaborative process. It was found that usually a consensus was reached within the family that often differed to some extent from the ideas expressed by the client. Thus, family involvement led to ongoing revision of information and plans that appeared to increase the trustworthiness of the process.

An unpublished team study examined the trustworthiness of Research Version 2. Team members were recruited nationally as participants in a research workshop cosponsored by AOTF and AOTA's Physical Disabilities Special Interest Section. Two therapists in rehabilitation facilities each selected eight elderly clients as participants, four with stroke whose potential cognitive impairments might be expected to affect accuracy of reporting and four with other physical disabilities that did not include cognitive impairments and who, thus, might be expected to report more accurately. For each participant, a family member also agreed to participate. CAPA interviews were conducted separately with clients and family members both during discharge planning and at 3-month follow-up after clients had returned to the community. Most interviews were conducted in person, though some follow-up interviews were done by telephone because of the distance of the clients' homes from the clinical facility. Data analysis included careful comparisons of information from clients with information from family members, which revealed a surprisingly high degree of agreement. For most client–family pairs, any area of disagreement was relatively minor, as exemplified by one participant who stated that attending Elks club functions was very important to him, whereas a family member stated that the participant did not attend “all that often.” In one case, a participant reported that his spouse could not drive because of manic-depressive illness, whereas the spouse reported only that she could not drive. In this circumstance, the therapist verified information about this issue from other sources. This situation indicates the type of circumstance in which verifying the trustworthiness of information is important both because of the likelihood that information about a sensitive topic, such as mental illness, might be unreported and because loss of the participants' ability to drive was likely to have major implications for the future mobility of both him and his spouse.

Clinical Effectiveness

Clinical effectiveness involves investigating whether a qualitative tool provides relevant and important information organized in a way that helps to shape interventions that have valuable outcomes for the client. Few studies have attempted to evaluate outcomes of the kind of consultation-based form of service delivery that future planning with the CAPA represents. Although the majority of outcome studies examine changes in client performance before discharge from a particular facility (Ellenburg, 1996; Rogers & Holm, 1994), evaluation of a tool to plan for future life in the community requires long-term examination of the client's life after discharge. Evaluation of clinical effectiveness of a qualitative assessment and consultation-based intervention strategy in the community is exemplified by a study of an occupational therapy home-based intervention for caregivers (Corcoran & Gittlein, 1992). The researchers used a format for documenting intervention and evaluation of effective and ineffective caregiver strategies that resulted from this consultation. Similar issues in documenting consultative intervention and evaluating outcomes over time have been important in the CAPA.

Clinical effectiveness of the CAPA has been examined on the basis of information gathered in the team study of Research Version 2, as described previously. Analysis focused on community outcomes of CAPA-based discharge planning on the basis of information gathered from the 3-month follow-up interviews. Discharge planning for each participant was completed with the CAPA, and during this process, goals were documented in the expected changes portion of the CAPA format. Follow-up interviews were conducted to determine whether the participant actually implemented his or her goals and plans for reaching them after returning home. Content analysis was used to develop a coding system to categorize similar responses emerging from the data and to count the frequency of responses in each category. The seven categories that emerged from this process were (a) goal met as originally documented; (b) goal met to some extent, but participant realizes some limitations; (c) new solution for established goal; (d) goal not yet achieved but still viable; (e) accommodation through a new related goal satisfying to participants and family members, (f) accommodation through a new related goal not satisfying to family members, and (g) goal not met and abandoned.

Results indicated that goals were distributed over types of occupations, with a heavy emphasis on basic (27% of all goals) and instrumental ADL (33% of all goals); leisure activities accounted for 24% of goals, and work activities accounted for 16% of goals. This distribution is not surprising in light of the relatively heavy em-
phasis on ADL in most rehabilitation programs and the fact that many participants were retired or contemplating retirement before onset of disability. At the time of follow-up, 57% of all occupational goals had been followed as originally documented. When the outcome categories that indicate minor modification of an original goal (outcome categories b-d) were added, 83% of the goals were followed, with only minor changes. Eight percent of all goals resulted in an outcome that involved accommodation of the original goal (outcome categories e and f), and 8% were unmet and abandoned.

Goals dealing specifically with mobility (the geographical environment) and relationships (the social environment) were coded separately. Analysis of outcomes of mobility goals showed that 50% were followed as originally documented. When the outcome categories that indicate minor modifications to an original goal (outcome categories b-d) were added, 87% of the mobility-related goals were followed, with minor or no modifications. Ten percent of all mobility goals led to outcomes that involved accommodation in the original goal, and 3% were unmet and abandoned. Analysis of outcomes of goals related to relationships showed that 46% were followed as originally documented. Adding outcome categories that represent minor modifications in original goals indicated that 71% were met, with minor or no modifications. Sixteen percent of all relationship goals led to outcomes that involved accommodation in the original goal, and 13% were unmet and abandoned.

This detailed analysis of the outcomes of CAPA-based intervention indicates that when used by experienced therapists, the CAPA structures a future-planning process that leads to community-oriented goals that clients actually implement roughly three fourths of the time (83% of occupational, 87% of mobility, and 71% of relationship goals). Accommodation in original goals after clients and family members return to the community is an important kind of outcome that merits further study. This finding is consistent with research that suggests that clients and family members continue the problem-solving process and adapt professional recommendations to the real world of their daily lives after returning to the community (Bull, 1992; Gage et al., 1997; Hasselkus, 1989; Hinojosa & Anderson, 1991). The small proportion of goals that were unmet and abandoned (8% of occupational, 3% of mobility, and 13% of relationship goals) indicates the clinical effectiveness of the CAPA as a useful tool for helping clients and therapists jointly anticipate what life will be like when clients return to the community with a new disability and to plan for ways in which the client's occupational life can be continued despite major disruptions.

**Reflections**

We believe that several of the fundamental questions encountered in our work on the CAPA reflect larger issues within the profession of occupational therapy. These include the need for a better understanding of how planning for the future occurs collaboratively between clients and therapists, ways in which qualitative aspects of practice can be documented efficiently, the need for evaluation criteria for emerging qualitative assessments and intervention tools, and ways in which outcomes of consultation-based practice can best be evaluated.

We continue to reflect on the process of future planning between therapists and clients and how this can best be organized. Gage et al. (1997) recently emphasized the need to understand the transition to community living after hospitalization from the perspective of clients as well as staff members, who tend to focus on the day of discharge rather than the long-term resumption of community life. Our own work on the nature and clinical importance of hope has led us to regard development of client hopes for the future as an important aspect of practice that has cognitive, emotional, and spiritual components interwoven in a complex way over time (Spencer et al., 1997). Research using the CAPA indicates that this tool provides one way in which “hope work” can be done with clients. Additional research is needed on how future planning occurs during therapy and its importance for adaptation to disability.

At a more pragmatic level, the CAPA has demonstrated promise as a tool that documents the qualitative aspects of practice in ways that are clinically efficient and useful and that facilitate systematic studies of the outcomes of intervention. Some authors have argued the importance of finding ways to make visible a more complete picture of what we do with clients so that occupational therapy interventions are better understood by clients, family members, other professionals, reimbursement sources, and our own practitioners (Mattingly & Fleming, 1994; Trombly, 1993). Additional research is needed on alternative ways to document qualitative aspects of practice and on whether such documentation makes a difference to our various constituencies. In addition, the criteria of usability, trustworthiness, and clinical effectiveness for evaluating qualitative intervention tools and documentation formats also need further investigation and debate.

Outcome research is a crucial issue for the profession (Ellenburg, 1996; Rogers & Holm, 1994). Design of outcome studies for consultation-based practice is likely to become a more pressing need as this form of service delivery grows. We believe that additional work is needed to develop and evaluate tools for documenting consultation in ways that facilitate analysis of outcomes.
Our own work on the CAPA is an evolving process. Initial pilot work indicates good usefulness, trustworthiness, and clinical effectiveness of this tool with elderly clients and with selected populations with physical disabilities. We believe that these are appropriate criteria for evaluating qualitative tools and plan to continue research on the CAPA in all three areas. The issue of trustworthiness and its relationship to reliability and validity in quantitative tools will receive particular attention in our future studies. This work will examine the assumption, on which the concepts of validity and reliability are based, that there is a single "true" response to interview questions that should be reported consistently. We will explore ways that differences among client, family member, and therapist perspectives can be reflected that do not suggest that one is "correct" while others are invalid or unreliable. Outcome studies of consultation that use the CAPA will continue to examine the tool's clinical effectiveness in fostering collaborative planning for the future between clients and therapists. In addition to working with populations with physical disabilities and elderly persons, this work will include populations with whom we have not used the CAPA, including populations with mental health problems or cognitive impairments, such as persons with brain injury.

The revised CAPA is available for use by therapists and researchers who are interested in evaluating this future-planning tool in practice with various clients and in addressing the research issues identified in this article. The process for development and evaluation of qualitative tools is less well established than the familiar standardization process used for development and evaluation of quantitative assessments. Therefore, we welcome interaction with others interested in qualitative tools whose ideas may expand our own research agenda for the CAPA.

Acknowledgments
We thank the following graduate students for their important contributions to development, pilot testing, and evaluation of both versions of the CAPA in collaboration with therapists in a variety of community settings: Kimberly Bruce, Sharon Cameron, Monica Crow, Dot Diggins, Angela Fitch, Jamie Giles, Laurie Magno, Lauren Meinjes, Valerie Moss, Mary Part, Heather Rucker, Jane Sowcroft, Christi Wagner, Kay Wiemers, Marilyn Wooton, and Shelly Wright. Data for evaluation of the clinical usefulness of discharge planning with the CAPA were contributed by Laura Thompson and Jane Zachman as part of a team research project supported by the American Occupational Therapy Foundation (AOTF). We also thank the many persons with disabilities who were willing to share their past experiences and future plans with members of the CAPA research team. Financial assistance provided by the AOTF supported work on the CAPA.

Appendix
Community Adaptive Planning Report Format

Personal Information
Demographics, living situation, health and disability, adequacy of income, coping style

Major Occupations Performed Regularly Before Onset of Disability
Activities, persons, environments, and value for each

Occupational Ratings for Each Major Occupation (Optional)
Rating by client on a scale from 1 (low) to 10 (high), satisfaction with time spent, satisfaction with degree of participation, negotiability of environment, importance of continuing occupation

Integrated Picture of Client's Community Adaptation

Overall Round of Occupations
Balance among work, leisure, activities of daily living, and rest satisfactory to client and others; ability to manage overall round of occupations

Social Network
Persons client interacts with regularly, inside and outside of household; key support resources

Personal Territory
Where does client go to perform major occupations? How does client get to these locations?

Value
What occupations would client be most willing to give up? What occupations does client most want to hold onto? What opportunities does client want to pursue in the future?

Major Occupations Expected To Change After Onset of Disability
Expected losses, expected gains, future-planning goals for each major occupation

Internal or External Sources of Structure

Level of Involvement in Collaborative Planning Process
Emotional commitment or psychic energy devoted by client to planning process; completeness of client's account of previous occupations; relative contributions of client and therapist to the planning process

Ability To Make Sense of Current Therapy
Ability to use therapy experience to anticipate future capabilities; ability to see connections between current therapy and future goals

Estimation of Future Ability To Follow Through With Implementation of Plans
Rating by therapist on a scale from 1, expected to need extensive support, to 5, able to manage implementation without help

Summary of Major Goals and Needed Forms of Support

References
and validation. American Journal of Occupational Therapy, 36, 789–800.
of Occupational Therapy, 35, 499–518.
indicators. In A. Halpern & M. Fuhrer (Eds.), Functional assessment
Qualitative Health Research, 2(1), 27–41.
Burke, J. P., & Kern, S. B. (1996). The issue is—is the use of
life history and narrative in clinical practice reimbursable? Is occupational
Bury, M. (1982). Chronic illness as biographical disruption. So-
ciology of Health and Illness, 4, 167–182.
Christiansen, C. (1996). Three perspectives on balance in occupa-
tion. In R. Zemke & F. Clark (Eds.), Occupational science: The
Christiansen, C., & Baum, C. (Eds.). (1991). Occupational ther-
Clark, F. (1993). Occupation embedded in a real life: Inter-
weaving occupation science and occupational therapy, 1993 Eleanor
Clark, F. A., Parham, D., Carlson, M. E., Frank, G., Jackson, J.,
Academic innovation in the service of occupational therapy’s future.
American Journal of Occupational Therapy, 45, 300–310.
dicine, 21, 997–1006.
The standards manual for organizations serving people with disabilities.
Tucson, AZ: Author.
and practice. St. Louis, MO: Mosby.
illness: Changes in body, self, biography, and biographical time. In J. Roth
& P. Conrad (Eds.), Research in the sociology of health care (Vol.
Corcoran, M. A., & Gitlin, L. N. (1992). Dementia manage-
ment: An occupational therapy home-based intervention for care-
Christiansen & C. Baum (Eds.), Occupational therapy: Overcoming
Duchek, J. M., & Thessing, V. (1996). The issue is—is the use
of life history and narrative in clinical practice fundable as research?
American Journal of Occupational Therapy, 50, 393–396.
Duke University Center for the Study of Aging & Human
human performance: A framework for considering the effect of con-
Ellenhorn, D. B. (1996). Outcomes research: The history, de-

The American Journal of Occupational Therapy
January 1998, Volume 52, Number 1