Development of a Treatment Rating in School Systems: Service Determination Through Objective Measurement

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Key Words: assessment process, occupational therapy • education, special

This paper introduces the Capital Area Treatment Rating (CATR) being developed by the occupational and physical therapists of the Capital Area Intermediate Unit in Harrisburg, Pennsylvania. This rating assists therapists in identifying children in special education who require occupational or physical therapy treatment. The CATR consists of two measurement categories—functional levels and clinical judgment factors—each of which is rated on a 4-point ordinal scale. The scores from each of these categories are then added together for a final rating score. A pilot test involving 180 children in special education indicated that the need for treatment is most consistently associated with a score of 28 points or above on the CATR. A survey of 17 pediatric occupational therapists revealed strong support for the instrument’s content and resulted in a revised version. Suggestions for future research and ongoing development are discussed, as are general guidelines for use of the instrument in special education occupational therapy programs.

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O ccupational therapists are employed in the school setting to meet the educationally based occupational therapy needs of children who are eligible for services. Quality assurance and federal requirements for nondiscriminatory evaluations require that the determination of therapeutic eligibility and service be based on measures that are both valid and reliable (American Occupational Therapy Association [AOTA], 1984; Fuchs, Fuchs, Benowitz, & Barringer, 1987; King-Thomas & Hacker, 1987). One important outcome of therapeutic evaluations in school systems is the identification of children who require direct occupational therapy in order to benefit from their education. Direct therapy is defined by AOTA (1989) as intervention by which a therapist “employs specific therapeutic techniques to remediate or prevent problems” (p. 6-19), occurs weekly, and includes individual and small group treatment. The more specific term treatment is used throughout the present article to refer to this type of direct intervention by a therapist. To make treatment decisions, therapists rely on available instruments as well as their education and experience. Variations in therapists’ training and the limited availability of instruments appropriate for therapists in school systems result in differing justifications for treatment decisions. We must minimize these differences to provide consistent service that ensures appropriate occupational therapy for students. Administrators, educational professionals, and parents may gain a greater understanding of the occupational therapist’s professional recommendations when such recommendations are based on uniform methods and sound rationale.

The Capital Area Intermediate Unit (CAIU) provides occupational and physical therapy services for various public and private educational programs in Harrisburg, Pennsylvania, and the surrounding counties. The occupational therapists and physical therapists of the CAIU work closely together, sharing policy, procedures, and philosophy within a joint department. Frequent collaboration and in-service training sessions promote a coordinated approach for the provision of pediatric therapy within the educational setting. Effective methods of service provision, such as consultation and monitoring (AOTA, 1989; Dunn, 1985), and integrated programming (Rainforth & York, 1987) are the service provision models used most frequently by CAIU therapists to meet the educational system’s demands for high-quality and cost-effective intervention strategies. In 1986, the CAIU’s occupational therapists and physical therapists specifically examined their process for identifying children for educationally relevant treatment. Two major questions were formulated: (a) How do we select students who require treatment in order to benefit from their special education plan? and (b) Can we trust our selection process?
Literature Review

Therapists use a variety of instruments to assess children’s performance. A survey by Lewko (1976) revealed that, of the 256 measurement tools used by therapists and teachers to evaluate motor behavior in children with disabilities, approximately two thirds (165) were unpublished. Lewko concluded that evaluators were generally unaware of the normative populations, strengths, weaknesses, limitations, and restrictions of the tools they were using. Berk and DeGangi (1979) assessed the psychometric properties of pediatric motor scales. They concluded that most instruments had important deficiencies, particularly in the areas of decision making, reliability, and discriminate validity. Although these studies are over 10 years old, many authors believe that there are still only a few measurement instruments for children with disabilities that are reliable and valid (Benson & Clark, 1982; Campbell, 1987; Fuchs et al., 1987; Lambert, 1988; Montgomery & Connolly, 1987; Utley, Zigmund, & Strain, 1987).

The use of instruments not determined to be reliable and valid places the therapist at risk for “unethical decision making” (Campbell, 1987, p. 1831). This may lead to inaccurate predictions about those students who could benefit from intervention and the types of services that may be warranted (Lambert, 1988). Our particular concern was the scarcity of well-researched instruments for the identification of students who need educationally relevant therapy. Within the school system, the child’s ability to function in the educational environment, rather than the severity of the disability itself, is of paramount importance. Consideration must be given to the student, the specific environment, and persons within the environment (AOTA, 1989). Without sound instruments with which to assess these factors, justification of occupational therapy treatment and documentation of its benefits is difficult.

AOTA (1980, 1981, 1989), Gilfoyle and Hays (1980), and Langdon and Langdon (1983) have published documents that assist occupational therapists in establishing programs within public education. These documents include useful information on standards of practice, guidelines for service provision, and recommendations. Criteria for prioritizing therapeutic eligibility are identified in the literature. The criteria more frequently identified are age, potential for improvement, expected response to treatment, and ability of other persons to meet needs (AOTA, 1989; Effgen, 1984; Palm Beach County School System, 1986; Taylor, Christopher, Freshmen, & McEwen, 1983).

Few objective tools are available for the therapist to determine occupational therapy treatment needs that are educationally relevant. Therapists are in a position of developing their own methods for decision making, often without the skills or time to ascertain whether their methods are valid or reliable (Lewko, 1976). Further compounding the problem is the significant variation in educational programming among states and even among counties. Therapists find it difficult to share methods due to the lack of common protocol.

Instrument Development

The CAlU, originally authored by Benson and Clark (1982), referred to the four phases of instrument development—planning, construction, quantitative evaluation, and validation—in the development and refinement of the Capital Area Treatment Rating (CATR). Due to time constraints, review of the instrument by experts (construction phase), initial pilot testing, and determination of interrater reliability (quantitative evaluation phase) occurred during the same academic year. At the conclusion of the school year, the information obtained through these preliminary studies was used to revise the instrument.

Planning

During planning, the purpose of the test, target groups, and test constructs and domains are clearly identified (Benson & Clark, 1982.) The purpose of the CATR is to identify children who meet specified criteria for treatment and the performance areas in which a child’s dysfunction hinders the educational progress. Most children rated by the CATR receive consultative or monitoring services as part of their individualized education plan. The rating can be used with children who have various disabilities and who represent age groups currently served within the CAlU’s settings. Children eligible for occupational therapy services are those aged 3 to 21 years who have one or more of the following conditions: mental retardation, neurological impairment, speech-language impairment, hearing impairment, visual impairment, autism, preschool developmental delay, or social and emotional disturbance. The CATR is not intended to measure the severity of a child’s disability, but rather, the child’s level of need for educationally relevant treatment. The CATR was designed as a combined occupational therapy and physical therapy instrument because of the interrelatedness of occupational therapy and physical therapy service provision in school systems.

The original version of the CATR included two measurement categories—functional levels and clinical judgment factors. Functional levels were defined as those performance areas that are frequently included in pediatric assessments and that are also relevant the educational setting. The eight functional levels were (a) muscle tone and strength, (b) developmental skills and motor patterns, (c) primitive reflexes and postural reactions, (d) sensory function, (e) adaptive equipment and assistive devices, (f) activities of daily living, (g) oral motor func-
tion, and (h) fine motor performance. The relationship of the functional levels to the educational setting was summarized on a point profile sheet. The CATR also included descriptive criteria for the rating of each functional level. Separate criteria in the areas of gross motor, fine motor, and oral motor performance ensured instrument sensitivity for differences usually seen in children with minimal and severe disabilities.

The category of clinical judgment factors involved additional factors that influence the decision-making process in treatment. The eight clinical judgment factors were (a) expected response to treatment, (b) therapy in relation to other needs of the child, (c) possibility of needs being met by other personnel, (d) immediacy of need, (e) impact of child's behavior, (f) ability to benefit from group and consultive services, (g) persons with whom therapist interacts based on needs of child, and (h) age. Descriptive criteria were also provided for the rating of each clinical judgment factor.

Before completing the CATR, the therapist assessed the child. After the therapist had gathered the necessary clinical information through formal assessment, observation, and interview, he or she rated each functional level and clinical judgment factor using a 4-point ordinal scale. The descriptors for the numeric ratings for each functional level and clinical judgment factor reflected the status of the child as related to his or her ability to function in the educational setting. A higher score indicated a greater need for educationally relevant treatment. A score of not applicable (0 points) was possible on functional levels and was specified by the descriptors for each respective functional level. A score of not applicable was not possible on the clinical judgment factors. A total score ranging from 0 to 24 was possible for the functional levels and for the clinical judgment factors. The final rating score could range from 0 to 48 and was obtained by adding the total functional level score to the total clinical judgment level score.

Quantitative Evaluation

Quantitative evaluation includes pilot testing, reliability procedures, and data analysis (Benson & Clark, 1982). The CAIU therapists conducted a preliminary interrater reliability study and an initial pilot testing of the CATR. The interrater reliability investigation involved the rating of one 7-year-old boy enrolled in a class for children with neurological impairments. Three occupational therapists and three physical therapists screened the boy on three separate visits. Each therapist independently scored the boy on the CATR. The final scores were then compared for consistency among the raters in each group and also between groups. Although this preliminary reliability study was performed on only 1 subject and therefore is statistically inconclusive, the findings suggest a consensus among the raters.

Pilot testing was conducted through a cluster sampling of 22 randomly selected classes, which represented 25% of each educational disability group currently being served by the CAIU therapists. A total of 180 children were included in the study. Each child's diagnostic grouping was determined by the multidisciplinary team, who followed a psychological evaluation and team review. Three staff occupational therapists and three staff physical therapists participated in the pilot testing. Each therapist rated approximately 30 children. The purpose of the pilot testing was to gather and analyze descriptive data to determine the CATR scores most associated with treatment need.

The pilot testing involved three steps. First, each therapist used a variety of standardized and nonstandardized pediatric tools commonly used in the public education setting to assess students in their educational environments. Second, following the assessments, each therapist used the results and review of the child's educational program to determine which subjects would be appropriate for treatment within the educational setting. Third, each student was scored on the CATR by the same therapist conducting his or her evaluation. The final CATR score was then compared with the child's need for treatment, as identified in Phase 2. The results of all 180 subjects were then compiled and analyzed. A distribution of the students' final scores is shown in Figure 1.

Thirty-one percent of the total number of subjects screened on the CATR were identified as candidates for treatment. Forty-four percent of the total subjects scored between 0 and 17 points on the rating instrument. Of
these, only 2.5% were identified as candidates for treatment. The other 56% of the total subjects scored between 18 and 39 points, and 53% of these children were identified as candidates for treatment. Closer analysis of the data in the 18-to-39-point category indicated that those children scoring 28 points and above (16% of total subjects) were almost always (93%) identified as candidates for treatment. Of those scoring between 18 and 27 points (40% of total subjects), 37.5% were identified as candidates for treatment. These results suggest that the therapists' perception of a child's need for treatment is most consistently associated with a score of 28 or above on the CATR. Preliminary data also suggest that the total CATR score is not directly proportional to the severity of a child's disability.

The initial findings of the pilot testing must be interpreted and applied cautiously. The evaluation tools used in Step 1 of the pilot test were not consistent among therapists and may have led to variability in subsequent scoring of the CATR. Each child in the pilot study received his or her preliminary evaluation for treatment need and his or her rating on the CATR from the same therapist, thus increasing the likelihood of rater bias. This methodology, however, was selected because it prevented undue interruptions in programming during the pilot testing. Finally, quantitative evaluation was limited to the geographic locale of the CAlU, and results cannot be generalized to other special education settings.

**Expert Review**

The CATR was submitted for peer review by a panel of 17 occupational therapists. All 17 had either served on the AOTA School System Task Force or were reviewers for the resultant *Guidelines for Occupational Therapy Services in School Systems*, originally published by AOTA in 1987. Their experience in school systems ranged from 7 to 21 years ($M = 12$ years, $SD = 4.32$).

The CATR and a related questionnaire were submitted to the clinicians for review of the instrument's content. The questionnaire contained 16 questions regarding the accuracy, adequacy, and quality of the descriptors for the functional levels and clinical judgment factors and of the instrument's general validity. The clinicians responded to each question with the use of a 4-point ordinal scale. Narrative comments or suggestions were encouraged. Frequency data on the reviewers' responses were compiled. Measures of central tendency, modes, medians, and weighted means were calculated. A percentage of congruency (i.e., agreement responses divided by total responses) was then calculated for each functional level and clinical judgment factor.

The CATR was highly supported by the expert reviewers. More than 80% of the reviewers indicated that the CATR was appropriate for its intended population, for rating a child's need for direct occupational therapy treatment, and for identifying those children most in need of treatment. Overall, the percentages of agreement on the 16 survey questions ranged from 63% to 100%. Sixty-seven percent of the questions received a percentage of agreement of 88% or above, 19% were within the 80% to 87% level of agreement, and 14% were below the 80% level of agreement. The percentages of congruency were more often higher for the functional levels than for the clinical judgment factors (see Table 1). This implies greater agreement among the reviewers on skills and performance areas than on those judgment factors that must be considered in the establishment of treatment priorities in public education.

The results of the expert review are dependent on the expertise of a selected sample of occupational therapists. Furthermore, the standards used to establish levels of reviewer agreement were high. All questions were supported by the majority (63% to 100%) of the reviewers. Although the CATR is intended for use by both occupational and physical therapists, expert review by physical

![Figure 1. Distribution of students' final scores on the Capital Area Treatment Rating (CATR) (highest score possible = 48).](image-url)
therapists was not obtained. Therefore, the study results are not necessarily applicable to use of the assessment by physical therapists.

Instrument Revision

The CAIU therapists analyzed the survey questions that received less than 88% agreement. The expert reviewers' written comments were compiled to determine the types of revisions that were warranted.

Although all functional levels received acceptable levels of approval for inclusion in the instrument, some revisions were recommended. Subsequently, two functional levels were renamed and the descriptions for the following three functional levels were revised: developmental skills and motor patterns, primitive reflexes and postural reactions, and sensorimotor functioning. The revisions focused on clarity, educational relevance, and increased variety of descriptors, respectively. In addition, visual motor performance was incorporated in the functional level of fine motor performance (see Figure 2 for the revised functional levels and for the summary of their relationship to the educational setting).

The reviewers' responses to five of the instrument's clinical judgment factors were favorable. The following three clinical judgment factors received levels of agreement below 80%: the impact of the child's behavior on therapy, the child's age, and the person or persons with whom the therapist must interact based on the child's needs. The clinical judgment factor regarding a child's behavior was revised in order to reflect the potential impact of therapy on behavior. Age was omitted as a clinical judgment factor because many of the reviewers indicated that a child's need for therapy depends more on functional expectations and disability than on age. The descriptor for the clinical judgment factor concerning the person or persons with whom the therapist must interact is appropriate to the CAIU's service provision and was retained with editorial revisions. One clinical judgment factor was renamed, and a new clinical judgment factor, amount of previous therapy in the educational setting, was added (see Figure 3 for the revised clinical judgment factors and their descriptive criteria). The clinical judgment factors and the point profile for summarization of the functional levels are also in the second edition of Guidelines for Occupational Therapy Services in School Systems (AOTA, 1989).

The issue receiving the lowest level of agreement (63%) among the reviewers was the weighting of the functional levels and clinical judgment factors in obtaining the final score. The CATR gives equal weighting to functional levels and clinical judgment factors in the final score. The reviewers were divided on the matter of weighting, and a reliable consensus was not achieved during this study. Some reviewers recommended greater weighting of functional levels, some recommended greater weighting of clinical judgment factors, and some indicated that clinical judgment factors should not be used at all in the calculation of the final score. After careful analysis of the diverse responses and the lack of consensus that would support a change, the CAIU therapists chose to maintain the current procedure of equal weighting of functional levels and clinical judgment factors in the final score.

Discussion

The CAIU therapists are currently using the CATR for rating children within their school setting who have been referred for occupational therapy treatment. The CATR can be completed in 15 min and is an efficient and effective tool for appraising the performance and clinical judgment components involved in making treatment decisions. The instrument has been well received by therapists, parents, teachers, and administrators due to its clarity and consistency for selection of students for treatment. The CATR facilitates interdisciplinary discussion of a child's need for educationally relevant therapy.

Analysis of the pilot testing supports the creation of three general categories of CATR scores. Children scoring in the 0-to-17-point range are seldom considered in need of direct treatment. These children may require services in the form of consultation with parents and teachers, equipment design, environmental modifications, or compensatory training strategies. Monitoring may also be deemed appropriate for the children within this point range whose scores approach the upper level. Children scoring in the 18-to-27-point range are carefully monitored throughout the school year and considered for treatment depending on their ongoing abilities to meet the demands of the educational environment. Children scoring 28 or above are almost always identified as needing direct treatment. These children frequently receive concurrent consultative services, monitoring services, or

<table>
<thead>
<tr>
<th>Functional Level</th>
<th>%</th>
<th>Clinical Judgment Factors %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral motor</td>
<td>99</td>
<td>Other needs of child</td>
</tr>
<tr>
<td>Activities of daily living</td>
<td>95</td>
<td>Needs met by others</td>
</tr>
<tr>
<td>Developmental patterns</td>
<td>94</td>
<td>Trajectory of need</td>
</tr>
<tr>
<td>Fine motor</td>
<td>94</td>
<td>Expected response</td>
</tr>
<tr>
<td>Muscle tone</td>
<td>94</td>
<td>Other occupational</td>
</tr>
<tr>
<td>Fine motor (minimal)</td>
<td>95</td>
<td>Therapy needs</td>
</tr>
<tr>
<td>Adaptive equipment</td>
<td>92</td>
<td>Child's age</td>
</tr>
<tr>
<td>Oral motor (minimal)</td>
<td>90</td>
<td>Impact of behavior</td>
</tr>
<tr>
<td>Reflexes/posture</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>Developmental patterns (minimal)</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Sensory function</td>
<td>82</td>
<td></td>
</tr>
</tbody>
</table>
### Capital Area Intermediate Unit OT/PT Department

**Point Profile of Functional Levels**

<table>
<thead>
<tr>
<th>Function</th>
<th>Educational Relevance of Treatment</th>
<th>Child's Level of Functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Muscle Tone and Strength</strong></td>
<td>Enhance muscle tone to improve posture and control needed to perform educational tasks. Maximize functioning of muscular and respiratory systems to increase endurance in school.</td>
<td>Functional 0</td>
</tr>
<tr>
<td><strong>Developmental Skills and Motor Patterns</strong></td>
<td>Promote development of functional movement patterns and motor control to improve the child's physical ability to accomplish school activities.</td>
<td></td>
</tr>
<tr>
<td><strong>Primitive Reflexes/Postural Reactions</strong></td>
<td>Facilitate the integration of primitive reflexes and/or the development of postural reactions which enhance the balance and functional coordination needed in the educational environment.</td>
<td></td>
</tr>
<tr>
<td><strong>Sensory-Motor Functioning</strong></td>
<td>Improve somatosensory functioning (tactile, vestibular, proprioceptive, visual systems) to enhance the student's ability to adapt to and learn in the educational environment.</td>
<td></td>
</tr>
<tr>
<td><strong>Adaptive Equipment/Educational Devices</strong></td>
<td>Aid student in positioning, self-care tasks, locomotion, and control of educational devices to promote independence.</td>
<td></td>
</tr>
<tr>
<td><strong>Daily Living Skills</strong></td>
<td>Provide training in dressing, grooming, hygiene, eating, transfer skills, mobility, or other daily living skills which permit the child to manage appropriately in the educational environment.</td>
<td></td>
</tr>
<tr>
<td><strong>Oral Motor</strong></td>
<td>Promote the development of normal oral patterns and control for speech and feeding.</td>
<td></td>
</tr>
<tr>
<td><strong>Fine Motor/Visual Motor</strong></td>
<td>Improve speed, accuracy, and strength in manipulation. Facilitate eye/hand coordination or ability to use adaptive materials so the student can participate in academic situations which require these skills.</td>
<td></td>
</tr>
</tbody>
</table>

*Specify why N/A (not applicable) under comments.*

**Total**

**Clinical Judgement Factors**

**Final Score**

---

Ref: 1. "OT/PT Reporting System", Palm Beach County School System, FL
2. "OT/PT Screening Assessment Tool", Totems, Volume 2, AOTA.

Figure 2. Capital Area Intermediate Unit's point profile of functional levels. Copyright 1991 by the Occupational/Physical Therapy Capital Area Intermediate Unit, Summerdale, PA. Reprinted by permission.
**CAPITAL AREA INTERMEDIATE UNIT OT/PT DEPARTMENT**

**CLINICAL JUDGEMENT FACTORS**

<table>
<thead>
<tr>
<th>STUDENT</th>
<th>DOB</th>
<th>DCOR</th>
<th>THERAPIST</th>
</tr>
</thead>
</table>

Rank the following factors of treatment from 0, "not a significant indicator", to 3, "most significant indicator".

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPECTED RESPONSE TO TREATMENT</td>
<td>Potential for progress is not a factor because child appears to be functioning at level of potential</td>
<td>Potential for progress is unlikely</td>
<td>Potential for progress is likely</td>
<td>Potential for progress is great. Therapy plays strong role in gaining function</td>
</tr>
<tr>
<td>THERAPY IN RELATION TO OTHER NEEDS OF THE CHILD</td>
<td>Therapy is not a priority</td>
<td>Therapy appears to be of a lesser priority than classroom and other program needs</td>
<td>Therapy needs are as important as other program needs</td>
<td>Therapy needs are more important than other program needs (to enable performance in school)</td>
</tr>
<tr>
<td>POSSIBILITY OF NEEDS BEING MET BY OTHER PERSONNEL</td>
<td>Needs can be met by teachers, parents, and/or self</td>
<td>Parents, teachers, or others can meet needs with infrequent consultation with therapist</td>
<td>Others can meet needs, but require regular consultation or monitoring from therapist</td>
<td>Not possible to meet needs by other than direct intervention by a therapist</td>
</tr>
<tr>
<td>URGENCY OF NEED</td>
<td>A need for therapy is not apparent in educational programming</td>
<td>Therapy is needed and may arise, although more time is required to assess situation</td>
<td>Current need for therapy</td>
<td>Critical need for therapy</td>
</tr>
<tr>
<td>POTENTIAL IMPACT OF THERAPY ON CHILD’S BEHAVIOR/AFFECT</td>
<td>Therapy will not impact upon child’s behavior/affect</td>
<td>Potential impact of therapy on child’s behavior/affect is unlikely</td>
<td>Potential impact of therapy on child’s behavior/affect is likely</td>
<td>Potential impact of therapy on child’s behavior/affect is great</td>
</tr>
<tr>
<td>ABILITY TO BENEFIT FROM MONITORING/CONSULTATIVE SERVICES</td>
<td>Monitoring/consultative services are not needed</td>
<td>Monitoring/consultative services are adequate to meet the child’s therapy needs</td>
<td>Child is able to benefit from monitoring/consultative services, but requires additional input to meet his/her needs</td>
<td>Child is unable to participate in and/or benefit from monitoring/consultative services</td>
</tr>
<tr>
<td>PERSON(S) WITH WHOM THERAPIST INTERACTS BASED ON NEEDS OF THE CHILD</td>
<td>No interaction necessary at this time</td>
<td>Interaction primarily needed between therapist and home environment (parent)</td>
<td>Relatively equal needs for interaction with home environment and school environment</td>
<td>Interaction primarily needed between therapist and educational environment</td>
</tr>
<tr>
<td>AMOUNT OF PREVIOUS THERAPY IN THE EDUCATIONAL SYSTEM</td>
<td>Received long-term therapy</td>
<td>Received moderate amount of therapy</td>
<td>Received therapy on short-term basis</td>
<td>Has never received therapy</td>
</tr>
</tbody>
</table>

**TOTALS**

Ref: 1. "OT/PT Reporting System", Palm Beach County School System, FL
2. "OT/PT Screening Assessment Tool", Totems, Volume 2, AOTA

2/91
both. Information on the nature of a child’s specific needs is obtained through a review of the ratings in each functional level and clinical judgment factor. Typically, those functional levels or clinical judgment factors with the highest point scores are those areas in which a child’s functional needs are most hindering to educational progress. The length and type of therapy are not identified by the CATR and are determined by the multidisciplinary team as recommended by the therapists involved.

Future Research

Research on the CATR is still in the early stages. The CAIU is currently developing a videotape and plans to develop a manual to ensure consistent use of the CATR. The revised instrument must be subjected to additional pilot studies and the interrater reliability study must be conducted with a larger sample of children. An internal reliability analysis may help determine the appropriateness of equally weighting the functional levels and clinical judgment factors in obtaining a final score. Additional studies of decision validity should be performed to determine functional levels and clinical judgment factors that most consistently relate to treatment need and to clarify services for children scoring between 18 and 27 on the CATR. Outcome measures of children receiving treatment, monitoring, or consultation may strengthen decisions based on the CATR. Because the CATR is intended for use by occupational and physical therapists, reliability and validity must be established for both professions. Phase 4 of instrument development, validation, must also be completed for analysis of content and construct validity, item homogeneity, and generalizability (Benson & Clark, 1982).

Conclusion

Occupational therapists providing services to children in the school system face many complex issues. One such issue, the identification of children for direct treatment, requires objective decision-making skills. Few tools based on sound principles of instrument development are available to assist the occupational therapist in making treatment determinations. The intent of this article was to introduce readers to the CATR through the course of its planning, construction, and preliminary quantitative evaluation. The CATR has been created to assist, not replace, the therapist in the professional decision-making process when determining the treatment needs of children in special education. Continuing research on this and related instruments must be shared with those therapists seeking to provide educationally relevant treatment so that the occupational therapy profession can remain effective in its approach to children with special educational needs. ▲

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