Pediatric Rehabilitation: Clinical Judgment Regarding Treatment Intensity

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This paper describes a survey of 24 managers of occupational therapy in pediatric rehabilitation and acute care hospitals regarding treatment frequency and intensity for inpatients. Questions related to availability of therapy on weekends, average length of a treatment session, and general policies regarding treatment intensity are explored.

Need for Treatment Parameters

The growing trend toward cost containment in health care settings poses many challenges to occupational therapy managers, including the demand to provide more services with fewer resources (Scussel & Sturgis, 1991). One responsibility of a manager is to budget for appropriate levels of personnel required to meet projected programmatic functions. Typically, personnel is the largest expense category in an occupational therapy budget, accounting for as much as 85% of total operating expenditures (Liebler, Levine, & Dervitz, 1984). In the inpatient hospital setting, justifications for personnel are typically based on a variety of factors, including estimates of patient census, goals of hospitalization relative to diagnostic mix and length of stay, staff productivity expectations, accreditation or reimbursement requirements, and individual philosophy guiding intervention decisions (e.g., consultation vs. individual or group therapy). Establishing treatment protocols that attempt to define the specific interventions required by various patient categories can also help in the determination of staffing requirements, although precise definition of need is unlikely given the individual variability of patients.

Although the occupational therapy literature includes numerous descriptions of intervention techniques for various diagnostic conditions in pediatrics, it rarely offers guidance as to the recommended intensity of these interventions (Parette, 1990). Few studies can be identified that correlate treatment intensity with outcome. Jenkins et al. (1982) studied physical therapy and occupational therapy intervention for children with developmental disabilities ranging in age from 3 to 15 years, all of whom were motorically impaired but without specific neuromuscular problems. Gross motor skills increased significantly for children receiving therapy when compared with a control group without therapy; however, children who received therapy three times per week made no greater gains than those receiving therapy only once per week. Johnston and Miller (1986) studied the outcomes of adult patients in acute medical rehabilitation hospitals after implementation of a Medicare regulation that increased daily physical therapy and occupational therapy intensity from 2.25 hr to 2.80 hr per day. Using a rating scale to measure functional status at admission and at discharge, the authors found no significant improvement in functional outcome with the increased amount of...
intervention. Because there is a dearth of empirical data to substantiate recommendations for therapy based on frequency or duration of therapy, therapists must rely primarily on clinical judgment when recommending a program of intervention (Parette, 1990). This places managers in a potentially vulnerable position when defending personnel requirements for their departments and could lead to pressure from cost-conscious administrators to reduce the level of care offered to patients. In the absence of convincing empirical data linking treatment intensity to outcome in pediatric practice, one approach to the development of treatment protocols or guidelines is to ask what constitutes best practice in clinical decision making among practicing members of the profession. For this reason, I surveyed a sample of occupational therapy managers working in pediatric acute care and rehabilitation hospitals to determine their clinical judgment regarding treatment intensity for hospitalized children.

**Method**

Questionnaires were mailed to the director of occupational therapy at 50 pediatric acute care and pediatric rehabilitation hospitals selected from the American Hospital Association’s 1990 Directory of Health Care Professionals to represent all major geographic areas of the United States. Questions designed for the survey related to ratio of staff to number of beds, availability of therapy on weekends, average length of a treatment session, and general policies of the department regarding treatment intensity. Twenty-four surveys were returned (a 48% response rate).

**Results**

**Frequency**

The frequency of therapy provided to children referred for occupational therapy in inpatient hospital settings is shown in Table 1. According to the 24 surveys returned, patients are scheduled for therapy at least once daily in 71% of the acute care hospitals, 87% of the rehabilitation hospitals, and 80% of the combined acute care–rehabilitation hospitals. Sixty-one percent of the patients in rehabilitation settings are recommended to receive therapy twice daily, compared with 15% of patients in acute care settings and 21% of patients in combined acute care–rehabilitation settings. Sixty-eight percent of the managers surveyed reported ½ hr as the average length of a treatment session; 26%, ¾ hr; and 6%, 1 hr. Fifty percent of the managers offer therapy on Saturdays, but none routinely offer therapy on Sundays. Several managers indicated that they occasionally provide on-call therapy on Sunday for patients with acute conditions, such as those with burns, although staff are not routinely scheduled for work on Sundays.

**Intensity**

When asked how they make decisions regarding treatment intensity when staffing falls below budgeted levels for an extended period of time, 38% of the respondents indicated that their primary strategy would be to reduce the intensity level for all patients referred to occupational therapy; 38% would discontinue therapy altogether for patients with conditions of low priority and continue with recommended levels of intensity for patients with conditions of high priority; and 24% would expect staff to meet recommended treatment levels for all patients by increasing their productivity standards. Several respondents commented that, in reality, they employ all three strategies to varying degrees.

**Discussion**

In the sample of pediatric occupational therapy departments involved in this survey, there was consensus among managers that the majority of inpatients referred for therapy should be scheduled at least once daily. Patients in rehabilitation settings are scheduled for occupational therapy twice daily on a far more frequent basis than those in acute care or combined acute care–rehabilitation settings. Somewhat less agreement was established regarding the intensity (i.e., total number of hours per week) of therapy indicated for various pediatric diagnostic conditions. This variability may be explained, in part, by differences in the average length of a typical treatment session, ranging from ½ hr to 1 hr, and in the availability of therapy on weekends, which was reported by 50% of the respondents. There appeared to be a trend toward recommending higher intensity levels of therapy for children with recently acquired injuries or disabilities as opposed to children requiring hospitalization for chronic medical conditions or developmental disabilities.

The design of this study posed several limitations to the interpretation of results. The low response rate of 48% raises questions regarding the representativeness of

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**Table 1**

| Treatment Frequency of Children Referred to Occupational Therapy in Three Settings (N = 24) |
|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| Type of Setting | Combined | Acute Care | Rehabilitation |
| | (n = 8) | (n = 5) | (n = 11) |
| Treatment Frequency | (%) | (%) | (%) |
| Twice daily | 15 | 61 | 21 |
| Once daily | 56 | 26 | 59 |
| Less than once daily | 29 | 13 | 20 |
| Total percentage of patients | 100 | 100 | 100 |
the opinions of the targeted study population. Increasing the sample size and obtaining a better response rate would increase the credibility of the results suggested by this small group of respondents. Furthermore, although the data suggest something about current practice trends in pediatric hospital settings with regard to the intensity of intervention provided, they fail to address what practice is the most effective or the most efficient in achieving therapy objectives. Additionally, respondents were instructed to make recommendations based largely on the institutional policies and personnel resources of their hospitals. Although these factors clearly influence the decision-making process, they should not be used to supersede recommendations that are based on sound clinical reasoning.

Clearly, there is a need for further research that establishes both the efficacy of pediatric occupational therapy intervention provided in inpatient settings and those specific parameters, including intensity, that can be expected to produce optimal outcome of care. It would be interesting, for example, to examine the effect of varying treatment intensity levels and varying treatment models (e.g., individual vs. group treatment) on functional outcome at time of discharge.

References


