Therapists’ Perceptions of Pediatric Occupational Therapy Interventions in Self-Care

Stacy Koser Swart, Elizabeth M. Kanny, Teresa L. Massagli, Joyce M. Engel

Key Words: pediatrics • philosophy, occupational therapy • self care

Objectives. This study examined the congruence between pediatric occupational therapists’ self-care interventions and occupational therapy’s philosophical base, which focuses on performance of self-care skills as primary in evaluation and intervention.

Method. A questionnaire was mailed to 252 therapists serving children ages birth to 6 years. The questionnaire asked for therapists’ perceptions about the importance, uniqueness, and frequency of 10 areas of intervention, including self-care.

Results. Perceived importance of self-care was found to be strongly related to perceived frequency of self-care intervention. Practice setting was significantly associated with perceptions of uniqueness of self-care, and team membership status was significantly associated with importance of self-care. Most respondents perceived self-care intervention to be important (86%) and unique (80%) to occupational therapy. Seventy percent regularly provided intervention for self-care.

Conclusions. The therapists’ perceptions reflected continued regard for self-care as an important and unique area of pediatric occupational therapy but were somewhat discrepant with the actual frequency of self-care interventions.

The concept of functional performance in everyday activities, including activities of daily living (ADL), work, play, and leisure, is central to the philosophy of occupational therapy (American Occupational Therapy Association [AOTA], 1979, 1986, 1994, 1995; Hopkins, 1993; Llorens, 1991). Pediatric occupational therapy literature substantiates the role of occupational therapy in the development of self-care proficiency in children. Additionally, it focuses on the uniqueness, importance, and the traditional nature of practice in the self-care domain (Banus, Kent, Norton, Sukienicki, & Becker, 1979; Case-Smith, 1993; Chandler, 1995; Hanft, 1988; Kramer & Hinojosa, 1993). In contrast, there is a paucity of information available on actual pediatric clinical practice pertaining to the occupational tasks of self-care (Case-Smith, 1994; Lawlor & Henderson, 1989). In this study, the term self-care refers to ADL as defined in AOTA’s Uniform Terminology (AOTA, 1994).

Lawlor and Henderson (1989) studied self-care intervention in pediatric clinical practice. They interviewed 118 occupational therapists to determine practice patterns with infants and young children. Seventy percent of the respondents reported that they routinely evaluated self-care and ADL in children ages birth to 4 years; 12%
sometimes evaluated ADL, especially when parents voiced concern; and 18% did not evaluate these skills. Of those who evaluated ADL skills, 90% reported that they routinely included parents in their evaluation of self-care. These respondents were also questioned about the frequency with which they addressed specific direct-intervention domains, such as fine motor skills, sensory integration, and ADL. Not surprisingly, in the birth to 1 year age group, ADL, exclusive of feeding, ranked 10th (rarely provided, if ever). In the 1 to 4 year age group, ADL ranked only 7th (sometimes provided).

Many factors may influence a pediatric occupational therapist's decision to evaluate or treat deficits in self-care performance, including characteristics of the practice setting (e.g., caseload, job description, environment, funding source); the referral source; the caregiver's level of concern; the therapist's priorities and background (e.g., age, level of education, clinical experience, continuing education experiences); the availability and usefulness of assessment tools; and current literature (Case-Smith & Wavrek, 1993; Copeland & Kimmel, 1989; Dunn, 1983; Hanft, 1988; Howard, 1991; Law, 1993; Lawlor & Henderson, 1989; Pratt & Allen, 1989; Wolery & Smith, 1989).

A result of the current trend toward comprehensive multidisciplinary services for young children is role blurring, or overlap between disciplines. In pediatric settings, it is frequently difficult to distinguish the roles of various professionals, even though each discipline lends its own focus on, and interpretation of, a specific situation, behavior, or skill (Burke, 1993; Lawlor & Henderson, 1989; Tyler & Chandler, 1989). This issue was also addressed in a survey by Lawlor and Henderson (1989) who found that 86% of the respondents believed that they provided some services unique to occupational therapy. Feeding and oral motor therapy were the most commonly reported unique services (27%). Adaptive equipment, ADL, sensory integration, parent training, splinting, fine motor development, and positioning were the next seven services most frequently reported as unique. In addition, respondents reported ADL as the fifth most common area of service provided by other disciplines.

The ability to care for oneself has been shown to build self-confidence and increase overall independence in ADL (Pratt & Allen, 1989). Although pediatric occupational therapists recognize that self-care skills play an important role in the overall function and quality of life, whether a person has or does not have a disabling condition, there is little documentation to show that this premise is reflected in clinical practice. Because of this lack of documentation, there is a need to examine the extent to which self-care is viewed as a valued intervention in occupational therapy. The purpose of this study was to identify current perceptions and trends in pediatric clinical practice with regard to daily self-care tasks. Further, the study assessed the congruence between the occupational therapy philosophy with respect to functional performance of self-care tasks and pediatric therapists' perceptions of self-care as a valued area of therapeutic intervention for young children.

Method
Sample
The sample consisted of 252 systematically selected, active, AOTA members who identified themselves in the 1990 Member Data Survey (AOTA, 1991) as pediatric occupational therapists serving children ages birth to 5 years. This designated age range of clients was chosen to reflect the span of life routinely associated with the acquisition of early self-care skills (Cook & Armbruster, 1983; Copeland & Kimmel, 1989). The sample represented 12% of a population of 2,099 pediatric occupational therapists.

Instrument
A survey was developed using terminology for practice-related services from the Standards of Practice for Occupational Therapists (AOTA, 1992). The questionnaire was pretested by six pediatric occupational therapists. A practical question-testing procedure was used immediately after the pretesting to identify misunderstandings or misinterpretations of the survey questions (Portney & Watkins, 1993). Feedback about face and content validity, clarity, and ease of task completion was solicited from all the therapists and used to refine the survey items (Dillman, 1978; Fink & Kosecoff, 1985).

The questionnaire consisted of nine close-ended questions. The first three questions addressed therapists' perceptions of (a) the importance, (b) the frequency of service delivery, and (c) the uniqueness of 10 commonly addressed areas of pediatric occupational therapy intervention (neurophysiologic, sensory integration, oral motor, fine motor, positioning and equipment, self-care, psychosocial and emotional, communication, gross motor, vision). Two questions from Lawlor and Henderson's (1989) survey of clinical practice patterns were modified for use in addressing frequency of usage and perceived uniqueness of the listed interventions. Modified, four-point Likert scales, or summative scales (Portney & Watkins, 1993), were used to assess the three perceptions of each area of intervention. The remaining six questions addressed professional occupational therapy background, including (a) current practice setting, (b) education level, (c) years of experience, (d) years of pediatric experience, (e) relevant specialty credentials, and (f) treatment team membership.
versus independent practice.

**Data Collection and Analysis**

Surveys were distributed by mail, with a reminder postcard sent 1 week later and follow-up mailings to nonrespondents at 3 and 7 weeks (Dillman, 1978). Return of the completed questionnaire implied respondent consent. Therapists who were not actively providing intervention for young children at the time they received the survey were asked to simply return it. Methods were in compliance with the Institutional Review Board of the University of Washington.

Descriptive statistics were used to obtain frequency counts and percentages for respondents' demographic characteristics and perceptions. Cross-tabulations were used to examine for associations between perception variables and respondents' characteristics and between importance and frequency perceptions. Significance was assessed through chi-square analysis. When an expected cell frequency of less than 5 was detected, the Fisher's exact test was used. A \( p \) value of .05 or lower was considered significant.

To characterize the strength of relationships among the perceptions, dichotomous variables were created by collapsing the four Likert categories of responses into very important–important and some importance–not important. The odds ratio for the relationship between perceived importance ratings and perceived frequency ratings was calculated for each area of occupational therapy intervention surveyed; significance was assessed with exact confidence limits (Mehta, Patel, & Gray, 1985; Portney & Watkins, 1993).

Years of pediatric occupational therapy experience were reported as interval data, so \( t \) tests were applied to compare the means (for respondents' years of experience) in the revised two-category variables for perceived importance, frequency, and uniqueness of occupational therapy intervention.

**Results**

Two hundred forty of the 252 questionnaires mailed were returned. Of those, 36 were not used because the respondents were unemployed or had changed practice setting. This yielded a response rate of 94% (\( N = 204 \)).

**Demographic Characteristics**

The mean number of years of respondents' professional experience in occupational therapy was 17 (range = 4–43 years), with a mean of 14 years of pediatric occupational therapy experience (range = 1–33 years). One hundred seventy-eight (88%) respondents identified themselves as working within a team of professionals, and 25 (12%) indicated that they were not members of teams in their work setting (see Table 1).

<table>
<thead>
<tr>
<th>Table 1</th>
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<tbody>
<tr>
<td><strong>Demographic Characteristics of Survey Respondents</strong></td>
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<tr>
<td>Characteristic</td>
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<tr>
<td>Practice setting</td>
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<tr>
<td>School</td>
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<tr>
<td>Early intervention program</td>
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<tr>
<td>Hospital</td>
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<tr>
<td>Private practice</td>
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<td>Child's home</td>
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<td>Outpatient clinic</td>
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<td>Developmental</td>
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<td>Residential program</td>
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<tr>
<td>Education level</td>
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<tr>
<td>Bachelors in occupational therapy</td>
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<tr>
<td>Masters in other field</td>
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<tr>
<td>Entry-level masters in occupational therapy</td>
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<tr>
<td>Advanced masters in occupational therapy</td>
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<td>Doctorate</td>
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<tr>
<td>NDT</td>
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<td>SCSIT/SIPT</td>
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<tr>
<td>AOTA pediatric specialty</td>
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<tr>
<td>Other</td>
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<td>Infant massage instructor</td>
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Note. \( N = 204 \); AOTA = American Occupational Therapy Association; NDT = neurodevelopmental theory; SCSIT/SIPT = Southern California Sensory Integration Test/Sensory Integration and Praxis Tests.

**Perceived Importance of Ten Areas of Pediatric Occupational Therapy Intervention**

Forty-eight percent of the respondents rated self-care as very important, 38% as important, 12% as somewhat important, and 1% as not important. Six areas of intervention received greater numbers of very important ratings than did self-care (see Figure 1).

**Perceived Frequency of Services in Ten Areas of Pediatric Occupational Therapy Intervention**

Twenty-two percent of the respondents rated the frequency of intervention provided within the area of self-care as consistently, 47.5% as often, 27.5% as sometimes, and 3% as rarely, if ever. Six areas of intervention received more consistently ratings than did self-care (see Figure 2).

**Perceived Uniqueness of Ten Areas of Pediatric Occupational Therapy Intervention**

Among the three perceptions surveyed, the response range within each of the 10 areas of intervention was greatest within the perceived uniqueness variable. Self-care was rated in the top three, with 42% of respondents rating it as very unique, 38% as unique, 15% as somewhat unique, and 5% as not unique (see Figure 3).

**Relationship Between Demographic Characteristics and Perceptions**

Education level was significantly associated with perceptions of gross motor intervention. Respondents with a
bachelor's level education were more likely to perceive gross motor intervention as more important than those respondents with one or more advanced degrees ($p < .001$). Respondents with an advanced degree were more likely to assign low ratings for both perceived frequency ($p < .01$) and uniqueness ($p < .02$) of gross motor intervention. There were no associations between education level and any of the surveyed perceptions of self-care intervention.

Practice setting (by primary conventional funding source) was found to be significantly associated with the perceived uniqueness of self-care ($p < .02$) and psychosocial interventions ($p < .01$). Respondents who worked in settings primarily funded via private sources were more likely to perceive self-care and psychosocial intervention as being more unique than did those who received public funds.

Membership on a treatment team was significantly associated with the perceived importance of intervention in the area of self-care ($p < .03$). Respondents who identified themselves as nonmembers of a treatment team were more likely to assign higher importance ratings to self-care intervention than did those who were members of a team.

With the use of $t$ tests, the mean years of pediatric occupational therapy experience was examined for its relationship with the respondents' three perceptions of the 10 interventions; the modified two-category (high–low) response groups were used for each of the three perceptions. The mean years of pediatric experience was not significantly different between the two response groups for any of the perceptions of self-care. There were no significant relationships between pediatric experience and respondents' perceptions of uniqueness for any of the areas of service delivery (see Table 2).

**Relationship Between Perceived Importance and Frequency of Service**

The association between perceived importance and perceived frequency of intervention was significant for all areas of service delivery surveyed except for fine motor. Thus, when the respondents believed the area of intervention to be important, they also indicated that they provided more services in that area. The odds ratio, confidence interval, and probability value for each relationship examined is presented in Table 3.

Perceived importance of intervention for self-care was found to have a significant and strong association with perceived frequency of intervention for self-care. The odds ratio for a self-care frequency rating of consistently–often was 22.0 for a respondent who perceived intervention for self-care as very important–important.
Table 2  
The Effect of Pediatric Occupational Therapy Experience on Respondent’s Perceptions:  
Summarized Significance

<table>
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<tr>
<th>Factor</th>
<th>Mean Years of Experience</th>
<th>p</th>
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<tbody>
<tr>
<td>Perceived importance of sensory integration</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Very important—important</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some importance—not important</td>
<td>14</td>
<td>.035</td>
</tr>
<tr>
<td>Perceived importance of fine motor skills</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Very important—important</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some importance—not important</td>
<td>14</td>
<td>.025</td>
</tr>
<tr>
<td>Perceived importance of communication skills</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Very important—important</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some importance—not important</td>
<td>14</td>
<td>.012</td>
</tr>
<tr>
<td>Perceived frequency of services for communica­tion</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Consistently—often</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes—rarely, if ever</td>
<td>15</td>
<td>.001</td>
</tr>
</tbody>
</table>

Note. Categories of very important and important were collapsed as were some imporrance and nor importanr and consisrently and rarely, if eVet to form a dichotomous variable to perform odds ratios; n = 203.

Therefore, respondents who perceived the intervention for self-care deficits to be very important or important were 22 times more likely to have considered the frequency of their intervention in self-care to be consistently or often.

Discussion

This study affirms the broad range and variability of services provided by pediatric occupational therapists. Although respondents’ perceptions reflected a traditional regard for self-care as an area of intervention unique to the discipline of occupational therapy, overall, they valued a number of other areas of service delivery more highly than self-care. Perhaps more importantly, the results of this study demonstrate that therapists continue to use functional and meaningful activity as interventions to achieve therapeutic outcomes. This reflects that, to some degree, the occupational therapy focus on self-care remains in place in pediatric practice.

The similarity of our results with those of Lawlor and Henderson (1989) lends validity to our findings. We found that 86% of 201 respondents rated the importance of self-care intervention as very important or important and that 69% provided such intervention consistently or often, which is consistent with Lawlor and Henderson’s 70% of respondents who routinely evaluated self-care and ADL skills of young children. Because selection of areas for evaluation would be expected to reflect either the priorities of the therapist or the practice setting, it would follow that the surveyed therapists assigned importance to the area of self-care.

When the frequency ratings of consistently and often were combined for analysis, five other areas of service delivery (neurophysiologic, sensory integration and perception, oral motor, fine motor, positioning and equipment) were still perceived as receiving more frequent intervention than self-care (see Table 3). These results are also consistent with those of the Lawlor and Henderson (1989) survey in which the respondents ranked the frequency of their ADL intervention as 7th among 10 intervention domains addressed with children ages 1 to 4 years.

Only two areas of service delivery (sensory integration and perception, fine motor) were perceived by present survey respondents as more unique to the discipline of occupational therapy than self-care. Lawlor and Henderson (1989) examined discipline uniqueness and overlap by asking therapists whether they provided services that were unique to occupational therapy. The third most frequently identified unique service was ADL. Yet, in that study, ADL was also the fifth most commonly reported area of overlap with other disciplines, thereby acknowledging either the variability among therapists’ perceptions of uniqueness or the unique approach of occupational therapists to a commonly addressed area of intervention.

Occupational therapy practice appears to have shifted away from what Brat (1986) identified as the fundamental application of a unique form of technology—that of human occupation, the foundation of the profession—and moved on to contemporary technology, modalities, and theories of practice. In the present instance, progress may be a loss because pediatric occupational therapists may sacrifice their identity—that is, their unique approach to achieving maximum purposeful and meaningful levels of function in the children they serve.

Taylor and Manguno (1991) and Law (1993) also noted this shift in practice. Taylor and Manguno stated that “traditional treatment activities in occupational therapy—that is, the purposeful activities used to achieve functional outcomes—have been replaced with modalities more closely identified with the knowledge base and practices of other professions” (p. 317). Law raised concern over the diminishing practice of basing intervention outcomes on changes in functional performance within areas such as ADL. The current practice is to use performance component changes, such as increased grasp strength, improved muscle tone, and reduced sensation, when evaluating the effectiveness of occupational therapy intervention. She proposed three rationales for the prevalence of performance component evaluation over functional evaluation: (a) ease of evaluation; (b) the technical nature of such measures, which lends more credibility to the assessment itself; and (c) its fit within the prevailing biomedical model under which many occupational therapists were, and are, trained and may continue to practice.

Law (1993) and Trombly (as cited in Stahl, 1995) identified the improvement of the contextual nature of occupational therapy evaluation and intervention as a
viable method for addressing the actual functional needs of clients, perhaps reflecting one of the dilemmas of current practice experienced by respondents. The areas of service delivery receiving the highest ratings were those that represented performance components (e.g., neurophysiological status, sensory processing, fine motor development), whereas self-care is a form of functional, purposeful, and meaningful occupation.

The availability of information from practicing pediatric occupational therapy clinicians regarding perceptions and practice may help educators make curriculum content decisions through their increased awareness of practice trends. It is during academic preparation for clinical practice that educators lay the foundation for professional development (Bing, 1986). Educators are obligated to prepare competent entry-level therapists by teaching content that is consistent with current clinical practice (Taylor & Manguno, 1991), even when some practices seem inconsistent with major models of intervention. Conversely, if as Bing asserted, new tools and techniques were being used for the sake of advancement, without consideration for consistency with the foundation principles of occupational therapy, the profession will appear to be advancing while it actually may be slowly withdrawing from its principles. More than a decade ago, Barris (1984) first posed the question of whether education should reflect current practice or influence it. The question remains relevant today.

One highly experienced respondent, who worked in an early intervention program that served children ages birth to 3 years, considered self-care to be very unique to occupational therapy, but indicated lower ratings on perceived importance and frequency. She commented that "self-care skills are not as significant yet" in this environment. This was surprising in light of the wealth of resources—assessment tools, textbooks, and manuals—that reflect that children who are typically developing establish early self-care independence at ages 2 to 3 years. Perhaps occupational therapists may underestimate the potential of the children they serve.

The implications of a "not as significant yet" perspective can be far reaching in light of the number of adolescents and adults with developmental disabilities who receive assistance with routine self-care tasks. Taylor and Manguno (1991) found self-care activities to be the second most frequent intervention by occupational therapists serving persons with developmental disabilities. Perhaps this outcome reflects insufficient attention of pediatric occu-
occupational therapists to the early acquisition of self-care skills in children.

Present study results were found to have strong philosophical implications for school-based therapists. Therapists in settings receiving public funding found self-care intervention to be less unique to occupational therapy, and those on intervention teams did not perceive self-care as important. Government-funded school-based therapists, representing 34% of eligible respondents, also constituted 36% of the therapists who reported team membership.

Therapists who are not members of an intervention team must often assume the role of generalist rather than that of team specialist (Case-Smith, 1994). Under this assumption, perhaps the respondents who were single service providers were more likely than those in the absence of team members who may otherwise have shared this responsibility.

In a number of publicly and privately funded settings, the funding source can be expected to influence practice (Burke & Cassidy, 1991; Howard, 1991), and present study results corroborate the view of many school-based therapists and their administrators that self-care independence is not educationally relevant. The current literature and government directives state otherwise (Chandler, 1995; Hanft, 1988; Reardon, 1988).

According to Chandler (1995), there is a clear developmental progression with regard to self-care expectations in school. She cites the following example: "The kindergarten teacher expects to assist with zippers and opening milk cartons; the fifth grade teacher does not" (p. 5). Many students with disabilities have difficulty performing self-care tasks in school (e.g., eating, toileting, changing clothes). Can occupational therapists fully address occupational dysfunction in schools if they are not supported in the delivery of services that represent the core philosophy of the profession?

There appears to be a dichotomy in pediatric occupational therapy practice. Therapists practicing in newer and nontraditional settings have deviated from the medical model of service delivery, in part, to facilitate team membership in these settings, but this may also lead therapists to respond to a consumer-driven market that dictates how therapy is delivered. For many occupational therapists, this has resulted in the loss of their traditional affiliation with the medical community and has subsequently led to philosophical and clinical discrepancies in practice.

Meanwhile, to gain needed support for the unique role of occupational therapy in the school setting, administrators who seek to contain costs while educating students must be provided with a better understanding of the theoretical and practical applications that differentiate occupational therapy from other related services (Burke & Cassidy, 1991; Chandler, 1995; Royeen & Marsh, 1988). Pediatric clinicians must discuss intervention priorities and the effect practice settings have on services provided by occupational therapists. Are therapists' interventions dictated by practice setting? Or, are therapists in a position to assert what services are suited to the philosophy of the profession?

**Limitations**

Although this study has numerous strengths, several limitations exist. Use of a mail survey may result in potential misrepresentation of the study sample through missing information or response error on individual questions. In addition, use of a four-point rating scale for each perception question may have limited respondents who would otherwise have elaborated on their answers. Finally, the survey did not discriminate between those areas frequently addressed in intervention and those considered to be the respondent's areas of primary focus.

**Directions for Future Research**

Although this study was successful in characterizing and comparing therapists' perceptions of self-care intervention with perceptions of other areas of intervention, there remain unanswered questions about the rationales for their perceptions of self-care intervention, particularly in instances of minimal use or noninclusion. Subjective information gathered through face-to-face or telephone interviews would be more informative in that regard because responses could be explored further for understanding.

Further study of self-care evaluation and intervention practices is necessary to explore the possibility that intervention for self-care deficits is not occurring after self-care delays have been identified. Additionally, interviews or surveys of actual teams of therapists in schools, early intervention programs, and hospitals may help to identify which disciplines other than occupational therapy are currently addressing self-care and in what proportions.

**Conclusion**

This study examined the congruence between occupational therapy's core philosophy about functional performance of self-care tasks and the actual clinical practice of pediatric therapists, as reflected in their perceptions of self-care intervention. Results showed that for a representative sample of pediatric occupational therapists employed throughout the United States, self-care intervention, although perceived as important and unique to occupational therapy, may not be as prominently practiced as implied in the occupational therapy literature and continuing education materials.
Acknowledgments
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References