

1991

A Study of the practice of occupational therapy with children from birth to five years of age

Cynthia Caraway
San Jose State University

Follow this and additional works at: https://scholarworks.sjsu.edu/etd_theses

Recommended Citation

Caraway, Cynthia, "A Study of the practice of occupational therapy with children from birth to five years of age" (1991). *Master's Theses*. 229.

DOI: <https://doi.org/10.31979/etd.avh7-heu3>

https://scholarworks.sjsu.edu/etd_theses/229

This Thesis is brought to you for free and open access by the Master's Theses and Graduate Research at SJSU ScholarWorks. It has been accepted for inclusion in Master's Theses by an authorized administrator of SJSU ScholarWorks. For more information, please contact scholarworks@sjsu.edu.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

Order Number 1347144

**A study of the practice of occupational therapy with children
from birth to five years of age**

Caraway, Cynthia Ann, M.S.

San Jose State University, 1991

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

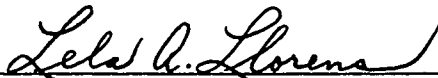
A STUDY OF THE PRACTICE OF OCCUPATIONAL THERAPY
WITH CHILDREN FROM BIRTH TO FIVE YEARS OF AGE

A Thesis
Presented to
The Faculty of the Department of Occupational Therapy
San Jose State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

By
Cynthia Caraway
December, 1991

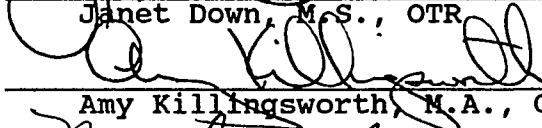
APPROVED FOR THE DEPARTMENT OF OCCUPATIONAL THERAPY



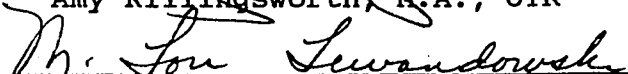
Lela A. Llorens, Ph.D., OTR, FAOTA



Janet Down, M.S., OTR



Amy Killingsworth, M.A., OTR



APPROVED FOR THE UNIVERSITY

ABSTRACT

A STUDY OF THE PRACTICE OF OCCUPATIONAL THERAPY WITH CHILDREN FROM BIRTH TO FIVE YEARS OF AGE

By Cynthia Caraway

A descriptive study was conducted to determine the current practice of occupational therapy in California for children age five and under. Two-hundred-sixty-seven occupational therapists in California returned a survey questionnaire reporting their current practice with this age group. The results of this study were discussed with the assumption that a response proportion of fifty percent or more indicated a standard practice in occupational therapy, and responses which were added to those identified by the researcher reflected indications of best practice in occupational therapy. The results indicated that occupational therapists are providing the direct services of evaluation, treatment, and discharge planning. The results suggested that occupational therapists are performing the indirect services of consultation and education. The results of the survey also gave indications of best practice in occupational therapy that follow the terms set forth in Public Law 99-457 which amended the Education for the Handicapped Act in 1986. These practices include moves toward interdisciplinary team approaches to practice and an increased concern for family needs.

ACKNOWLEDGEMENTS

I would like to acknowledge and give my sincerest gratitude to my advisor, Dr. Lela Llorens, and to my readers, Assistant Professor Janet Down and Associate Professor Amy Killingsworth, for their guidance, support and feedback.

I would also like to thank the Santa Barbara Statistical Laboratory for assistance in the design of the questionnaire and statistical advice.

Furthermore, I would like to extend my thanks and love to my family who sustained me, inspired me, and fixed my computer when it ate my work.

TABLE OF CONTENTS		Page
Title		i
Signature Page		ii
Abstract		iii
Acknowledgements		iv
Table of Contents		v
List of Tables		vii
Chapter 1 Introduction		1
Purpose of the Study		1
Statement of the Problem		1
Objectives		2
Questions		2
Definitions		3
Assumptions		4
Limitations of the Study		4
Significance of the Study		5
Chapter 2 Literature Review		7
Introduction		7
Theoretical Framework		7
Government Influence		8
Occupational Therapy Service Provision		12
Summary		17
Chapter 3 Methodology and Data		18
Questions		18
Subjects		18
Procedure for Data Collection and Instrument		19
Data Analysis Procedure		20
Data		20
Chapter 4 Results		65
Question 1		65
Question 2		68
Chapter 5 Implications, Recommendations, and Summary		72
Implications		73

Recommendations	77
Summary	78
References	80
Appendix A	83
Appendix B	88
Appendix C	89

LIST OF TABLES		Page
Table 1:	Current Positions Held by Respondents	21
Table 2:	Years Respondents Worked in Occupational Therapy	22
Table 3:	Years Respondents Worked in Pediatric Occupational Therapy	24
Table 4:	Counties in which Services are Provided	25
Table 5:	Service Provision by Program Types	27
Table 6:	Other Professionals that Provided Services in the Program	30
Table 7:	Location of Occupational Therapy Service Provision	32
Table 8:	Mechanisms by which Information is Shared with Other Agencies and/or Professionals	34
Table 9:	Frequency with which Information is Shared with Other Agencies and/or Professionals	36
Table 10:	Methods of Service Documentation	37
Table 11:	Frequency with which Documentation is Recorded	38
Table 12:	Source(s) of Funding for Services	39
Table 13:	Source(s) of Funding for Equipment and Supplies	40
Table 14:	Age Ranges for Service Provision	43
Table 15:	Special Needs Groups for Whom Services are Provided	44
Table 16:	Methods for Communicating with Families	46
Table 17:	Frequency of Communicating with Families	48
Table 18:	Percentage of Services Directed Toward Family Needs	49
Table 19:	Sources for Client Population	51
Table 20:	Direct Services Provided	52
Table 21:	Therapeutic Modalities Used	54
Table 22:	Follow-up Services Provided	57

Table 23: Indirect Services Provided	59
Table 24: Educational Programs Provided for Other Professionals	60
Table 25: Educational Programs Provided for Caretakers	62

CHAPTER 1

INTRODUCTION

Purpose of the Study

The purpose of this study was to determine: 1) the current practice of California occupational therapists in California for children age five and under, and 2) indications of best practice service provision by occupational therapy for this population.

Statement of the Problem

Occupational therapists are providing services to children age five and under through community child care centers and other facilities (American Occupational Therapy Association [AOTA], 1989; Fuller, 1985; George, Braun, & Walker, 1982; Hanft, 1988; Lawlor & Henderson, 1989; Stangler, Huber, & Routh, 1980; West, 1969), and standards of practice for occupational therapists in community health care have been identified in the literature (AOTA, 1989; Lawlor & Henderson, 1989; George et al., 1982; Llorens, 1971). According to the literature, the current practices of occupational therapists in California with early intervention and preschool services in California have not been identified and analyzed.

Lawlor & Henderson (1989) conducted a telephone survey with 118 occupational therapists who work with children age four years and under. The authors commented that "although the expansion of services is evident, through an analysis of shifts in personnel, our knowledge about pediatric practice is limited. This limited knowledge has hampered efforts to

establish priorities for research endeavors, to design quality efficacy studies, to direct educational programs, and to direct the theoretical foundations of pediatric occupational therapy" (p. 755). Lawlor & Henderson's results "indicated that there was considerable overlap across disciplines serving infants and young children. Similarly, there was a striking lack of consensus in the nature of the specific services that occupational therapists believe to be unique to their discipline" (p. 762). Thus, there is a need to know the specific services provided by occupational therapists. As well as a need to define some of the parameters for which occupational therapy will provide services.

Objectives

This study was designed to fulfill the following objectives:

1. To generate data on the current practice of occupational therapy with children from birth to five years of age.
2. To identify some factors that influence service delivery to this population.

Questions

The following questions were addressed in this study:

1. What is the current standard practice for occupational therapy with children from birth to five years of age?
2. What are some of the indications of best practice for occupational therapy with children from birth to five years of age?

Definitions

3

The following definitions have been generated for terms used in this study.

Best Practice: Approaches to occupational therapy service provision that go beyond what is typically available (AOTA, 1989). In this study, responses reported by occupational therapy practitioners which were not indicated by the researcher are considered to describe this variable.

Current Standard Practice: The services occupational therapists provide at this time, and the methods used to provide those services; the typical kind of occupational therapy service that is available (AOTA, 1989). In this study, this variable is described by responses to items from Part V, items #1-7 on the survey questionnaire.

Multi-disciplinary Team: A group of professionals representing various disciplines work within a certain structure and who are called a team (Lawlor & Henderson, 1989).

Occupational Therapy: The services provided by a licensed or certified occupational therapist to address the functional needs of a child related to performance of self-help skills, adaptive behavior and play, and sensory, motor, and postural development (AOTA, 1989).

Service Delivery: The provision of occupational therapy to children, their caretakers, and their families.

Assumptions

Implicit in this research was the assumption that occupational therapists have a role with children from infancy through age five. It was also assumed that occupational therapists are fulfilling the demands required by the Education for the Handicapped Act (EHA), and therefore were providing some of the services that are enumerated in the questionnaire used in this study. It was further assumed that the questionnaire reflected the standard practice of occupational therapy with children from birth to five years of age as described in the literature review.

This study assumed that the subjects would answer the questions correctly to the best of their knowledge. Further, this researcher assumed that the information generated from this sample would reflect the practice of pediatric occupational therapists in California who provide services to children under five years of age, and their families.

Limitations of the Study

The generalizability of this study is limited by the small sample size and the selection of participants. This sample does not represent a full cross section of the population, assuming that there is a percentage of practicing pediatric therapists in California who are not members of the American Occupational Therapy Association, and there are those who did not return the questionnaire. This study is further limited by the assumption that the literature review and questionnaire adequately reflect standard practice in occupational therapy.

Significance of the Study

In 1986, Public Law 99-457 (PL 99-457) amended the Education for the Handicapped Act (EHA) to revise Part B--Handicapped Children Aged Three to Five, and to add a new Part H--Handicapped Infants and Toddlers, creating an early intervention program for infants and toddlers with developmental delay (AOTA, 1989; Hanft, 1988). The American Occupational Therapy Association published the Guidelines for Occupational Therapy Services in Early Intervention and Preschool Services in 1989 to provide a resource guide and general parameters for occupational therapists working in these areas. However, there are still several issues that remain to be explored.

Occupational therapists need to strive toward the standard of 'best practice' to be able to successfully meet this challenge (AOTA, 1989; Hanft, 1988). In the American Occupational Therapy Association's (1989) Guidelines for Occupational Therapy Services in Early Intervention and Preschool Services, best practice is defined as "approaches that go beyond those typically available" (AOTA, 1989, p.2-11). Identification and analysis of practice norms assist with the provision of the services targeted as best practice services. Identification and development of the factors that influence interaction with families would be a part of the process of developing a standard of best practice in occupational therapy (Dunn, 1989).

This study proposes to provide current information on the frequency and prevalence of use of previously identified practices of occupational therapy in California with children age five and under. Provision of such information can assist occupational therapists in identifying ways to maintain standard practice, and to pursue best practice in

the provision of occupational therapy services to children from birth to five years of age. Provision of such information can also assist educators in their preparation of occupational therapists for service provision with young children.

CHAPTER 2

LITERATURE REVIEW

Introduction

This review of the literature was organized into three sections. The first section introduces the conceptual frame of reference that guided this research. The second section reviews the history of governmental influence on occupational therapy practice with children under five years of age. Finally, the third section discusses both direct and indirect services provided by occupational therapists for children in this age group.

Theoretical Framework

This research is based on concepts proposed within Stoller's (1984) integration of Lloren's model of development and Kielhofner's conceptualization of system's theory. This framework views individuals as growing cyclical systems that are developing within their environments. When the internal systems or the sub-systems within systems are disrupted due to injury, disease, or environmental inputs to the system's cycle, the system's development as a whole is interrupted. Occupational therapists have a role in providing direct and indirect input to systems to help prevent disruptions of the cycle, to identify gaps in the system's growth and development, and to provide developmental input to promote the continuance of growth within, and of the cycle. The occupational therapist may provide this input directly to the system. For example,

the occupational therapist may structure purposeful and functional play activities for the individual child to facilitate adaptation within a dysfunctional area. On the other hand, the input may be indirect, such as in the form of education or consultation services that result in suggestions for adaptations that caretakers may make in the environment to respond to problems (Stoller, 1984; Schaaf, 1990). These services and others constitute occupational therapy practice in pediatrics.

Government Influences

Federal

Legislation has had great impact on the role of occupational therapy with children. For example, education services for preschool children were initially authorized in 1968 under the Handicapped Children's Early Education Assistance Act. However, all of those services were discretionary (Hanft, 1988). Although the federal government encouraged schools to serve children under six years of age by offering preschool incentive grants for specialized programs to state education agencies, the educational system generally did not provide early intervention services to preschool children until the 1970 enactment of the Education for All Handicapped Children Act (EHA) in 1975 (Hanft, 1988). In 1970, congress enacted the EHA which authorized "funding for regional resource centers for deaf and blind children, experimental early childhood education programs, and personnel training" (Hanft, 1988, p. 726).

However, it was not until 1975, when Public Law 94-142 (PL 94-142) Part B of the EHA was enacted, that services for

children under six years of age were included in government regulation for children's services (Hanft, 1988). Part B of the EHA provided federal support for special education and related services in state and local education agencies. Part B mandated that all children between the ages of three and seventeen have a right to a free, appropriate, and public education, regardless of handicapping condition. The EHA further requires that 1) both the education of students with special needs and related services be provided for the education of students with special needs, 2) these services should be documented via the Individualized Education Program (IEP), 3) the people affected will have a right to due process, and 4) the education will be provided in a least restrictive environment (AOTA, 1989).

Part B of the EHA set a national deadline of 1980 for states to educate children with disabilities. However, children under five years of age were not included in the guarantee for services unless education is available for able bodied students between the ages of three and five years of age. Furthermore, services such as occupational therapy are required only if the needs for these services are documented on the student's individualized education program, and those services must be designed to help the child to benefit from special education (AOTA, 1989; Hanft, 1988).

Legislators seemed to recognize the inefficiency of the system, and amendments to the EHA were proposed in response to the need for early intervention for minimizing future costs. Thus, in 1986 Public Law 99-457 (PL 99-457) was enacted to amend the EHA. Part B was expanded to provide special education and related services to preschool children with developmental disabilities aged three to five years. Part H was added to the EHA, creating an early intervention

program for infants and toddlers with developmental delay (AOTA, 1989; Hanft, 1988). This discretionary, early intervention program was to award grants to states to develop and expand comprehensive services for infants, toddlers, and their families (AOTA, 1989; Bazyk, 1989). The definition of early intervention includes occupational therapy, screening services, and/or health services necessary for the infant or toddler to benefit from the other early intervention services as part of the ten primary developmental services. Thus, under the early intervention service, occupational therapy can be provided independent of the infant's or family's need for other services. In other words, an infant or toddler does not have to be eligible first for special education to be eligible for occupational therapy. Furthermore, the state has the option of requiring specialized training for those working with children from birth to two years of age (Hanft, 1988).

PL 99-457 encourages states to develop an interagency system to address 4 major needs: 1) to enhance infant development and minimize delay, 2) to be cost effective by reducing future educational costs, 3) to establish community based programs, reducing the likelihood of institutionalization, and 4) to support families in their quest to meet their children's special needs. (Hanft, 1988).

Provisions of Part H require that the responsibility for the collaboration and provision of comprehensive programs for infants and their families is shared between the State Departments of Education, Human Resources, Developmental Disabilities, and Mental Health. The law further requires that each state, among other things, establishes a comprehensive child-find and referral system, and provide for timely multi-disciplinary evaluations and family needs assessments (Bazyk, 1989; Hanft, 1988).

Hanft (1988) made two points regarding the creation of one state wide system of care for infants with developmental delay. The first point regards the fact that there is little overlap between health and education programs in the majority of the states; therefore, cooperative agreements and lines of communication must be developed between health and education agencies at the local, state, and federal levels. The second point recognized that both health and education early intervention services have grown out of programs for able-bodied children of different ages. These factors have had an impact on the services sought, and the expectations of those services.

The State of California

Knowledge of each individual state's plans for complying with the federal mandates is important because the state's parameters will define practice within the agencies of that state (Dunn, 1989). In the state of California, the legislature has made a statement of intent that special education programs provide for the special needs of children as required by the federal mandates. These statements of intent closely reflect the provisions of PL 99-457, including the need for early intervention and the focus on family centered care.

Occupational therapy services are described "as part of the trans-disciplinary team, occupational therapists provide professional consultation to early education program personnel" (Hinkle, 1989, p. 57). Specific, medically necessary occupational therapy services may be provided to infants when warranted by diagnosis.

Occupational Therapy Service Provision

The American Occupational Therapy Association's 1989 Guidelines for Occupational Therapy Services in Early Intervention and Preschool Services encourages occupational therapists to strive for 'best practice' as opposed to 'standard practice' in their approach to their work. The term standard practice describes the typical kinds of services expected to be available. Public policies reflect minimum levels of standard practice. For example, developmental assessments are considered to be a standard practice in programs for young children, and are often required by federal and state laws, regulations, and policies. The term best practice refers to approaches that use practices that are not typically available because they go beyond what is standard. They tend to include research activities, model programs, or other innovative approaches. The guidelines for best practice and standard practice change and grow as these programs contribute to the body of knowledge and new services become available to a wider population (AOTA, 1989).

There are various ways that children under age five receive input from occupational therapists. An occupational therapist may have a role in providing indirect service to a child as a case manager for a state agency, or through consultation to care providers. The occupational therapist may provide direct input to the child in the form of evaluation and intervention (Bazyk, 1989; Clark & Allen, 1985; Hanft, 1988; Llorens, 1971; Oliver, 1990).

Direct services provided by occupational therapists to children age five and under may be initiated after the child is identified as in need of more extensive assessment

through a child find or developmental screening procedure that assesses perceptual-motor functions, language, age-appropriate social skills, age-appropriate activities of daily living skills, and/or cognitive skills (Clark & Allen, 1985; George et al., 1982; Llorens, 1971; Miller, 1989; Oliver, 1990). Through early screening programs, problems may be detected more promptly, and a plan for beneficial intervention that will contribute to the maintenance of wellness and prevention of disruption to the system may be developed. In addition, early recognition and treatment of problems may prevent the occurrence of developmental difficulties secondary to the initial problem (AOTA, 1979; McIlroy & Koranyi, 1985; Miller, 1989; Morris, 1978; Stangler, Huber, & Routh, 1980; West, 1969).

Children who show indications of difficulties when initially screened would be given more extensive evaluation to further define their problem areas, and/or referred to the appropriate professional (Lawlor & Henderson, 1989; Llorens, 1971). Stangler et al. (1980), described one of the major goals of developmental screening as the identification of "Children, primarily during their preschool and early school years, who appear to be asymptomatic, but who are highly likely to have a disorder that interferes with the expected sequence of normal growth and development" (p. 21). More intensive evaluation of problem areas that may be performed by an occupational therapist may include, but are not limited to the following areas: tactile perception, visual figure-ground perception, ocular pursuits, spatial orientation, fine and gross motor coordination and control, auditory discrimination, orientation in time and place, non-verbal and symbolic integration,

feeding, oral-motor function, linguistic input and output, spelling, reading, and number ability (Lawlor & Henderson, 1989; Llorens, 1971).

Treatment can be given on a one-to-one basis, or in a group situation (Lawlor & Henderson, 1989). An example of a group would be an infant stimulation group for teenage mothers (George et al., 1982). One-to-one therapeutic intervention can include but is not limited to neuro-developmental treatment, feeding and oral-motor intervention, provision of adaptive equipment, and/or adaptive toys, environmental modification, self-care training, activities of daily living training, sensory integration therapy, splinting, facilitation and enhancement of fine and gross motor development, programming for play, positioning, and handling (Bazyk, 1989; Clark & Allen, 1985; Gorga, 1989; Lawlor & Henderson, 1989; Oliver, 1990; Schaaf, 1990; Sents, 1989).

Direct intervention can also include working directly with the family. Young children are totally dependent on their families for care and nurturing, and occupational therapists have been educated and trained to work with clients of all age groups and so are uniquely qualified to carry out early intervention procedures (Morris, 1978). PL 99-457 induced a philosophical shift from child centered intervention to a focus that is guided by the needs of the entire family (Bazyk, 1989; Oliver, 1990). Thus, the current emphasis in early intervention programs is on a collaborative model for family services that enable the families and other caretakers to help children grow and develop (Bazyk, 1989; Hanft, 1988; Lawlor & Henderson, 1989; Oliver, 1990). In this model, the parent and therapist are partners, because each has important information that is necessary to the success of the treatment. Bazyk (1989)

states that "Parents who are aware of goals and general treatment principals are often able to think of naturally occurring opportunities for therapeutic activities within their daily routine, thereby enhancing their sense of control" (p. 726).

The occupational therapist may be one of several service providers from different agencies that is working to fill the child's and family's needs for services. Lawlor & Henderson (1989) indicated surprise that occupational therapists identified parent training as a service unique to occupational therapists, but this finding was supported by other aspects of the data in which the parent involvement, and the value of parent involvement, are considered important aspects of patient care for pediatric therapists.

Occupational therapist's knowledge of growth and development, and their holistic basis for approaching abnormalities in growth and development make education and consultation important modes of indirect service provision. For example, occupational therapists may use their skills to educate pregnant teenagers, give postnatal counseling regarding normal growth and development, and initiate infant stimulation groups to teach techniques for the facilitation of growth and parenting skills (AOTA, 1979; George, et al., 1982; Llorens, 1971). Morris (1978) described a Parent Education Program for parents of children two and three years of age. This program was developed as a part of a well baby care program to test the hypothesis that the medical facility was an ecologically sound location for an intervention program directed at strengthening the parent's role in the child's early education. The results showed that intervention through the parent can have a positive effect on the child's performance. Furthermore, the

parents made use of a clinic based intervention program, and they tended to keep their appointments more regularly.

Occupational therapists also provide consultation to community agencies (George, et al., 1982; Llorens, 1971; McIlroy & Koranyi, 1985). The consultation may center around particular children, or around the promotion and facilitation of development for children in general (Clark & Allen, 1985; Llorens, 1971). The consultation may be provided for a preschool, a nursery school, head start program, parent and child center, child and youth projects, and day care facilities among other places (Clark & Allen, 1985; Lawlor & Henderson, 1989; Llorens, 1971; McIlroy & Koranyi, 1985; West, 1969). For example, an occupational therapist may provide consultation or in-service education for staff and other caretakers on the use of activities to promote growth and development in a variety of areas such as cognition (Llorens, 1971). An occupational therapist may also make suggestions for environmental alterations, or adaptations for toys to promote play activities that will facilitate growth and development (Florey, 1981). The consultation may consist of modeling helpful ways of handling and positioning the child for making eye contact, for verbal interaction, or for play activities (Bazyk, 1989).

Fuller (1985) studied the role of occupational therapy in employer-sponsored child care. The study used questionnaires to collect data from occupational therapists working in community child care programs and directors of employer-sponsored child care center programs. The results indicated that consultation, education, screening, evaluation, and program planning are services that potentially could be provided by an occupational therapist for children age five and under (Fuller, 1985).

In 1982, George, Braun, & Walker studied 155 disadvantaged preschool children. Their data showed a fifty percent improvement in pre-test and post-test scores for the experimental group which received intervention. Thus, the results of their study indicated that for disadvantaged children, early intervention by occupational therapy developmental therapy and classroom experience helped to eliminate their developmental delays and provide them with age appropriate developmental skills.

Part H of the Public Law EHA requires that one case manager from the profession most immediately relevant to the infant's and toddler's or family's needs will be responsible for implementing the IFSP and coordinating services (AOTA, 1989; Hanft, 1988). Thus, the occupational therapist's role may also include the indirect services of advocate, referral source, and coordinator, among others (Hanft, 1988; Lawlor & Henderson 1989; Oliver, 1990).

Summary

Occupational therapists provide intervention through a variety of services to children under five years of age. Government influence in the form of the Education for All Handicapped Children Act (EHA) has influenced the focus and range of these services. Currently, there is an emphasis on family centered care. Thus, direct intervention can include working with the child and his or her family to provide the therapy necessary to help the child's system to close gaps in development. Indirect intervention can include consultation and case management among other services that indirectly facilitate development of the child's system.

CHAPTER 3

METHODOLOGY AND DATA

In this chapter, the methodology and data are presented. This research was conducted to generate data on the current practice of occupational therapy in California for children five years of age or less, and the factors involved in service delivery to this population. The data are presented in four sections which correspond to the four sections in the questionnaire.

Questions

The following questions were addressed in this study:

1. What is the current standard practice for occupational therapy with children from birth to five years of age?
2. What are some of the trends for best practice for occupational therapy with children from birth to five years of age?

Subjects

The subjects for this research were: occupational therapists who 1) work in California, 2) are registered with the American Occupational Therapy Association, and 3) have designated their special interest area as sensory integration or developmental disabilities. Selected by these parameters, there was a population of about 875 occupational therapists in California. A sample of 268 was

selected with a P value of .05 significance. In an attempt to reach this response level, 670 questionnaires were mailed. The address labels for the subjects were chosen at random from a pool of all the address labels for the entire population. Two-hundred-fifty-four questionnaires were returned by occupational therapists working with children within the target age range. Thus, the conclusions of this study can only be considered indications of trends, because the sample size did not reach a significant level.

Procedure for Data Collection and Instrument

This research used a non-experimental, status quo survey (Oyster, Hanten, & Llorens, 1987). The instrument was a mailed questionnaire (Appendix A). The subjects agreed to participate in the research by completing the questionnaire, and they were informed of their voluntary participation in the cover letter (Appendix B). In the questionnaire, items about demographic information were followed by questions concerning the occupational therapy program, their clients, and their services.

The questionnaire format for the service portion of the study was designed to follow the flow of treatment from referral to evaluation, through treatment, discharge, and follow up. Each questionnaire was given a serial number for encoding purposes. Names of the subjects were not recorded on the questionnaire. A separate card was included so that subjects could request information on the results of the study without association with a particular form (Appendix C).

Data Analysis Procedure

The data were analyzed using descriptive statistics. Because the sample size did not reach a significant level of the total population, a response percentage of more than fifty percent was considered to reflect a trend toward standard practice; trends toward best practice can only be suggested and discussed.

Data

The four sections of data are as follows: demographics, program information, client information, and service provision information. Tables and narrative descriptions of the data are presented and ranked from the highest to lowest percentage. The total number of subjects that selected a response is followed by the percentage of subjects that indicated that response. Variability in N is due to the fact that not all subjects responded to every item on the questionnaire.

Data Collected from California Occupational Therapists Working with Children from Birth to Five Years of Age

Demographics

The occupational therapists (N=254) surveyed for this study indicated that their current positions were as follows: staff therapist (N=114, 44%), private practice therapist (N=51, 20%), part-time staff/ part-time private practice (N=49, 19%), other (N=41, 16%), and administrator (N=23, 9%). (See Table 1)

The respondents (N=254) described the duration of their practice in occupational therapy: over ten years (N=131,

Table 1

Current Positions Held by Respondents (N=254)

	<u>n</u>	<u>%</u>
a. Staff therapist	114	.44
b. Private practice therapist	51	.20
c. Part-time staff/part-time private practice	49	.19
d. Administrator	23	.09
e. Other	41	.16
1) Supervisor		
2) Clinical Specialist		
3) Senior Therapist		
4) Consultant		
5) Special Education Teacher		
6) Administration and Staff		
7) Clinical Instructor		
8) Educator		
9) Administration and Private Practice		
10) Chief Occupational Therapist		
11) Per Diem		
12) Infant Development Specialist		
13) Coordinator of Educational Programs		
14) Student		

Table 2

Years Respondents Worked in Occupational Therapy (N=254)

	<u>n</u>	<u>%</u>
a. over 10 years	131	.51
b. 6 to 10 years	71	.27
c. 1 to 5 years	48	.18
d. under 1 year	7	.02

51%), six to ten years ($N=71$, 27%), one to five years ($N=48$, 18%), and under one year ($N=7$, 3%). (See Table 2)

Of the respondents ($N=252$), 105 (41%) reported over ten year duration for their pediatric occupational therapy practice. Sixty-nine described one to five year duration (27%), 66 identified six to ten year duration (26%), while 13 occupational therapists reported under one year (5%) duration for their pediatric occupational therapy practice. (See Table 3)

Occupational therapists ($N=252$) reported the provision of services in the following counties: Los Angeles ($N=72$, 28%), San Diego ($N=23$, 9%), San Bernardino ($N=17$, 6%), Orange ($N=15$, 5%), Contra Costa ($N=14$, 5%), Santa Clara ($N=11$, 4%), Riverside, Ventura ($N=10$, 3% each), Alameda ($N=9$, 3%), San Francisco, Sacramento ($N=7$, 3% each), San Mateo ($N=5$, 2%), Fresno, Butte, Yuba, Sutter ($N=4$, 1% each), Solano, San Joaquin, Placer ($N=3$, 1% each), Stanislaus, Mendicino ($N=2$, .00% each), Sonoma, Imperial, Tulare, Merced, Shasta, Monterey, Humbolt, Santa Barbara, Calaveras, El Dorado, Kern, Marin, Santa Cruz, Glen, and Tehema ($N=1$, .00% each). (See Table 4)

Program

One hundred and three (41%) of the occupational therapists surveyed reported that they provide services for state and county programs ($N=103$, 41%). Eighty (31%) reported that they provide services for programs other than the types of programs listed in the questionnaire. (See Table 5) Private practice programs ($N=67$, 26%), public school programs ($N=61$, 24%), and pre-school programs ($N=29$, 11%), ranked third, fourth, and fifth respectively, as program types. Twenty (8%) of the occupational therapists surveyed specified California Children's Services as the program for which they provide services. Employment in Head

Table 3

Years Respondents Worked in Pediatric Occupational Therapy
(N=252)

	<u>n</u>	<u>%</u>
a. over 10 years	105	.41
b. 1 to 5 years	69	.27
c. 6 to 10 years	66	.26
d. under 1 year	13	.05

Table 4

 Counties in Which Services are Provided (N=252)

	<u>n</u>	<u>%</u>
a. Los Angeles	72	.28
b. San Diego	23	.09
c. San Bernadino	17	.06
d. Orange	15	.05
e. Contra Costa	14	.05
f. Santa Clara	11	.04
g. Ventura	10	.03
h. Riverside	10	.03
i. Alameda	9	.03
j. San Francisco	7	.02
k. Sacramento	7	.02
l. Other	49	.19
(1) San Mateo		
(2) Fresno		
(3) Butte		
(4) Yuba		
(5) Sutter		
(6) Solano		
(7) San Joaquin		
(8) Placer		

Continued...

- (9) Sonoma
 - (10) Stanislaus
 - (11) Imperial
 - (12) Mendicino
 - (13) Tulare
 - (14) Merced
 - (15) Shasta
 - (16) Monterey
 - (17) Humbolt
 - (18) Santa Barbara
 - (19) Calavares
 - (20) El Dorado
 - (21) Kern
 - (22) Marin
 - (23) Santa Cruz
 - (24) Glen
 - (25) Tehema
-

Table 5

Service Provision by Program Types (N=254)

	<u>n</u>	<u>%</u>
a. State/county program	103	.41
b. Private practice	67	.26
c. Public school program	61	.24
d. Pre-school	29	.11
e. Acute Care Hospital	26	.10
f. Specified California Childrens Services	20	.08
g. Out Patient	10	.10
h. Other	80	.31
1) Intensive Care Neonatal		
2) Clinic		
3) Pediatric Rehabilitation		
4) Infant Program		
5) Head Start Program		
6) Developmental Center		
7) Early Intervention		
8) Child Care Center		
9) Psychiatric Hospital		
10) Private School		
11) University Program		
12) Charitable Program		

Continued...

- 13) Ayres Clinic
 - 14) Home Health
 - 15) Residential Program
 - 16) Health Maintenance Organization
 - 17) Parent Supported Program
 - 18) Computer Access
 - 19) Mental Health
 - 20) Sales
 - 21) Regional Center
-

Start programs was indicated by eight therapists (3%). The lowest percentage of respondents indicated child care centers as their program (N=3, 1%).

One hundred ninety-three (78%) of the occupational therapists reported a total of 1,089 other occupational therapists on staff. The average number of occupational therapists on staff was 5.64, and one was the median of other occupational therapists on staff. Fifty-three (27%) of the occupational therapists reported that there were no other occupational therapists on staff at their work site.

The occupational therapists surveyed indicated other professionals involved in their programs included: physical therapists (N=183, 75%), speech therapists (N=156, 64%), administrative staff (N=153, 63%), physicians (N=138, 57%), social workers (N=132, 54%), educational staff (N=123, 50%), nurses (N=122, 50%), psychologists (N=103, 42%), adaptive physical education teachers (N=55, 23%), and others (N=44, 18%). (See Table 6)

One half of the occupational therapists surveyed reported that they provide services at school campus clinics (N=126, 50%). The second highest percentage of responses was for sites other than those listed in the questionnaire (N=97, 38%). The third highest percentage reported providing services in the child's home (N=83, 33%). The lowest percentage of respondents (N=43, 17%) identified off campus clinics as the site where they provide services. (See Table 7)

The majority of occupational therapists surveyed described documentation (N=212, 83%) as a means by which information is shared with other agencies and/or professionals involved with the child and family. Many occupational therapists (N=193, 76%) described using informal telephone interviews and informal meetings (N=181,

Table 6

Other Professionals that Provided Services in Program
(N=244)

	<u>n</u>	<u>%</u>
a. Physical therapist	183	.75
b. Speech therapist	156	.64
c. Administrative staff	153	.63
d. Physician	138	.57
e. Social worker	132	.54
f. Educational staff	123	.50
g. Nurse	122	.50
h. Psychologist	103	.42
i. Adaptive physical education teacher	55	.23
j. Other	44	.18
1) Recreation therapist		
2) None		
3) Vision specialist		
4) Nutritionist		
5) Therapy technician		
6) Behaviorist		
7) Certified occupational therapy assistant		
8) Mobility specialist		
9) Physical therapy aides		
10) Rehabilitation engineer		

Continued...

- 11) Vision screening
 - 12) Counselor
 - 13) Audiologist
 - 14) Computer access specialist
 - 15) Dentist
-

Table 7

Location of Occupational Therapy Service Provision (N=252)

	<u>n</u>	<u>%</u>
a. School campus clinic	126	.50
b. Home setting	83	.33
c. Off campus clinic	43	.17
d. Other	97	.38
1) Hospital		
2) Private clinic		
3) Hospital out patient		
4) Neonatal intensive care unit		
5) Medical center		
6) Occupational therapy unit		
7) Rehabilitation hospital		
8) Classroom		
9) Home		
10) Regional center		
11) Consult at individual educational plan meetings		
12) Health Maintenance Organization clinic		
13) Hospital satellite		
14) Rent space in toy store		
15) Work setting		

71%) to share information. Formal case conferences (N=171, 67%) are also used to share information with other professionals. Information is shared at regular multidisciplinary team rounds (N=66, 26%). The other ways to share information with other professionals enumerated by occupational therapists (N=40, 16%) were listed. (See Table 8)

Occupational therapists reported the following frequencies for sharing information on a particular client with other agencies: on an as needed basis (N=232, 92%), monthly (N=30, 12%), weekly (N=18, 7%), each treatment session (N=3, 1%).

Over one half of the occupational therapists surveyed (N=252) use an institute documentation form (N=157, 62%) to report their services. Individual Educational Plans (N=84, 33%) are also used to document occupational therapy services. The other ways (N=73, 29%) that occupational therapists document their services are listed in Table 10. Nine (4%) occupational therapists use Individualized Family Service Plans to document their services.

Occupational therapists reported the following frequency of recording documentation for a particular client: each treatment session (N=151, 59%), on an as needed basis (N=86, 34%), monthly (N=71, 28%), weekly (N=29, 11%).

Occupational therapists described using county and state allocations (N=198, 78%) and insurance reimbursement (N=78, 31%) to provide funding for their services. Occupational therapists also identified educational funds (N=64, 25%), private foundations (N=48, 19%), and the government (N=28, 11%) as sources of funding for their services. Other sources (N=38, 14%) are listed in Table 12.

Table 8

Mechanisms by Which Information is Shared with Other
Agencies and/or Professionals (N=254)

	<u>n</u>	<u>%</u>
a. Documentation	212	.83
b. Informal telephone interview	193	.76
c. Informal meetings	181	.71
d. Formal case conferences	171	.67
e. Regular multidisciplinary team rounds	66	.26
f. Other	40	.16
1) Individual educational plan meetings		
2) Clinics		
3) Periodic reports		
4) Medical conferences		
5) Discharge planning meetings		
6) Parents		
7) Community based meetings		
8) Consultation		
9) Daily SOAP notes		
10) Evaluation and follow up		
11) Mail		
12) Medical appointments		
13) Medical records		

Continued...

- 14) Notes through child
 - 15) Occupational therapist to class
 - 16) Phone
 - 17) Request for therapy
-

Table 9

Frequency With Which Client Information is Shared with Other Agencies (N=253)

	<u>n</u>	<u>%</u>
a. on an as needed basis	232	.92
b. monthly	30	.12
c. weekly	18	.07
d. each treatment session	3	.01

Table 10

Methods of Service Documentation (N=252)

	<u>n</u>	<u>%</u>
a. Institute documentation form	157	.62
b. Individual Education Plan (IEP)	85	.33
c. Individualized Family Service Plan	9	.04
d. Other	73	.29
1) Reports (assessment and progress)		
2) Notes		
3) Consultation reports		
4) Classroom program		
5) Medical records		
6) Own developmental assessment format		
7) Health care plan		
8) Six month goal plan		
9) Teacher reports		

Table 11

Frequency with which Documentation is Recorded (N=252)

	<u>n</u>	<u>%</u>
a. each treatment session	151	.59
b. on an as needed basis	86	.34
c. monthly	71	.28
d. weekly	29	.11

Table 12

Source(s) of Funding for Services (N=254)

	<u>n</u>	<u>%</u>
a. County/state funds	198	.78
b. Insurance	78	.31
c. Education funds	64	.25
d. Private foundation	49	.19
e. Government grant funding	28	.11
f. Parent	23	.09
e. Other	38	.14
1) Private donations		
2) Regional center		
3) California Childrens Services		
4) HMO insurance		
5) Medi-Cal		
6) Federal government		
7) Medi-Care		
8) Private hospital		
9) Private school tuition		
10) Self		
11) State/county funds		
12) Elks Lodge		

Table 13

Source(s) of Funding for Equipment and Supplies (N=252)

	<u>n</u>	<u>%</u>
a. County/state funds	126	.50
b. Education funds	74	.29
c. Private foundation	54	.21
d. Self	28	.11
e. Private hospital	20	.08
f. Government grant funding	18	.07
g. Other	77	.30
1) Private pay		
2) Donations		
3) Insurance		
4) Private practice group		
5) Medi-Cal		
6) Occupational Therapy budget		
7) Fund raising		
8) HMO		
9) Tuitions		
10) Volunteers		
11) California Childrens Services		
12) Corporate grants		
13) Regional center		

Continued...

- 14) Special education local area projects
 - 15) Charitable organizations
 - 16) Elks project
 - 17) Family
 - 18) Medicare
-

Occupational therapists indicated that county and state funds (N=126, 50%) provide funding for equipment and supplies. Other sources (N=77, 30%) are listed in Table 13. Occupational therapists reported that educational funds (N=74, 29%), private foundations (N=54, 21%), the therapists themselves (N=28, 11%), private hospitals (N=20, 8%), and government grant funding (N=18, 7%) also provide funding for equipment and supplies.

Client Information

Occupational therapists reported providing services for the following age ranges: three to five year olds (N=231, 91%), school aged children (N=208, 82%), one to two year olds (N=209, 83%), infants (N=191, 75%). (See Table 14)

The special needs for which the occupational therapists provide services include: neurological impairments (N=218, 86%), general developmental delays (N=209, 82%), orthopedic handicaps (N=186, 73%), at-risk conditions in infants (N=159, 62%), sensory integrative disorders (N=158, 62%), learning handicaps (N=127, 50%), mental retardation (N=122, 48%), auditory or visual impairments (N=99, 38%), speech impairments (N=79, 31%), social/emotional problems (N=72, 28%). Thirty-six (14%) 'other' impairments were reported as well. (See Table 15)

Almost one half of the occupational therapists surveyed (N=251) indicated that they did not perform a family needs assessment (N=144, 45%) as a regular part of their services. The category that received the second highest percentage of respondents was 'yes on an as needed basis' (N=76, 30%), and the category that received the third highest percentage of respondents was 'yes, every case' (N=36, 14%). The lowest percentage of respondents indicated that they perform a family needs assessment for 'almost every case' (N=28, 11%).

Table 14

Age Ranges for Service Provision (N=252)

	<u>n</u>	<u>%</u>
a. 3 to 5 year olds	231	.91
b. 1 to 2 year olds	209	.82
c. school aged children	208	.82
d. infants	191	.75

Table 15

Special Needs Groups for Whom Services are Provided (N=254)

	<u>n</u>	<u>%</u>
a. Neurological impairments	218	.85
b. General developmental delays	209	.82
c. Orthopedic handicaps	186	.73
d. At-risk conditions in infants	159	.62
e. Sensory integrative disorders	158	.62
f. Learning handicaps	127	.50
g. Mental retardation	122	.48
h. Auditory or visual impairments	99	.38
i. Speech impairments	79	.31
j. Social/emotional problems	72	.28
k. Other	36	.14
1) Drug addiction in infants		
2) Feeding problems		
3) Multiple handicaps		
4) Muscle disorders		
5) Attention deficit disorder		
6) Autism		
7) Burns		
8) Acutely ill		
9) Cleft palate		

Continued...

- 10) Down's Syndrome
 - 11) Fragile X Syndrome
 - 12) Genetic problems
 - 13) Head trauma
 - 14) Neonatal problems
 - 15) Oncological problems
 - 16) Post drowning
 - 17) Prematurity
 - 18) Spinal cord injury
-

Table 16

Method for Communicating with Families (N=254)

	<u>n</u>	<u>%</u>
a. Informal meetings	208	.81
b. Informal telephone interview	185	.72
c. Formal case conferences	144	.56
d. Co-treatment with caretakers	134	.52
e. Other	51	.20
1) Each treatment session		
2) Informal notes		
3) Reports		
4) As needed		
5) Home programs		
6) Home visits		
7) Bedside		
8) Individual Education Plans		
9) Phone		
10) Clinic		
11) Family conference		
12) Formal documentation		
13) Parent education groups		
14) Parent training		
15) Screening sessions		

Occupational therapists surveyed described communication with the family through informal meetings ($N=208$, 81%), and informal telephone interviews ($N=185$, 72%). They also communicate through formal case conferences ($N=144$, 56%), and during co-treatment with caretakers ($N=134$, 52%). Other ways ($N=51$, 20%) in which the occupational therapists surveyed communicate with the family are listed in Table 16.

Occupational therapists identified the following frequency of communication with the families: on an as needed basis ($N=143$, 56%), each treatment session ($N=130$, 51%), weekly ($N=27$, 10%), and monthly ($N=19$, 7%). (See Table 17)

Thirty-five (16%) of the respondents indicated that they provide services directed toward family needs ten percent of the time, with 32 (15%) of the respondents indicating that they provide services directed toward family needs none of the time. A pair of 26 (12% each) respondents reported that they provide services directed toward family needs twenty-five percent of their time, and a pair of 26 respondents (12% each) reported that they provide services directed toward family needs fifty percent of their time. A pair of 18 (.08% each) respondents indicated that they provided services directed toward family needs fifteen and twenty percent of their time, respectively. Eight (.03%) of the respondents reported that they provided services directed toward family needs five percent of the time, and 7 (.03%) of the respondents described providing services directed toward family needs one hundred percent of the time. A pair of 6 (2% each) respondents indicated that they provided services directed toward family needs thirty and thirty-five percent of the time, respectively. Five (2%) reported that they provided services directed toward family

Table 17

Frequency of Communication With Families (N=254)

	<u>n</u>	<u>%</u>
a. On an as needed basis	143	.56
b. Each treatment session	130	.51
c. Weekly	27	.10
d. Monthly	19	.07

Table 18

 Percentage of Services Directed Toward Family Needs (N=212)

Number of Respondents	Percentage of Services Identified
35	10
32	0
26	25
26	50
18	15
18	20
8	5
7	100
6	30
6	35
5	40
4	1
3	2
3	75
2	45
2	60
2	65
2	70
2	80
1	3
1	9
1	17
1	55
1	90

needs forty percent of the time, and 4 (1%) described providing services directed toward family needs one percent of the time. A pair of 3 (1% each) respondents indicated that they provided services directed toward family needs two and seventy-five percent of the time, respectively. Five pairs (0%) of respondents (0%) indicated that they provided services directed toward family needs 45, 60, 65, 70, and 80 percent of the time. Several individual respondents described providing the following percentages of their services directed toward family needs: three, nine, seventeen, fifty-five, ninety, and ninety-five.

Occupational Therapy Service

The occupational therapists surveyed described the following sources for client population identification: referrals ($N=227$, 90%), program eligibility ($N=129$, 51%), screening ($N=97$, 38%), other sources listed in Table 19 ($N=22$, 8%), and child find programs ($N=9$, 3%).

A very high percentage of the occupational therapists surveyed indicated that they provide evaluations ($N=248$, 98%) as part of their direct services. Occupational therapists also described program implementation ($N=239$, 94%) as one of the direct services they provide. Program planning ($N=230$, 90%) and re-evaluation ($N=241$, 95%) are other areas of direct service identified by occupational therapists. Occupational therapists reported providing discharge planning ($N=203$, 80%) and screening ($N=158$, 62%) as part of their direct services. The other ways described for provision of direct occupational therapy services ($N=55$, 21%) are listed in Table 20.

Occupational therapists surveyed indicated that they use the following modalities to treat their clients: fine motor activities ($N=238$, 94%), gross motor activities ($N=232$, 91%), developmentally sequenced activities ($N=229$,

Table 19

Sources for Client Population (N=251)		
	<u>n</u>	<u>%</u>
a. Referrals	227	.90
b. Program eligibility	129	.51
c. Screening	97	.38
d. Child find program	9	.03
e. Other	22	.08
1) Parent request		
2) Admission to hospital		
3) Weekly pediatric rounds		
4) Doctor's orders		
5) Evaluations		
6) School districts		
7) Transfer from other counties		
8) Word of mouth		
9) Consultation		
10) Denial from California Childrens Services		
11) High risk follow up for Neonatal Intensive Care Unit		
12) Individual case review		
13) Psychologist		
14) Regional center		
15) State agency		

Table 20

Direct Services Provided (N=253)

	<u>n</u>	<u>%</u>
a. Evaluation	248	.98
b. Re-evaluation	241	.95
c. Program implementation	239	.94
d. Program planning	230	.90
e. Discharge planning	203	.80
f. Screening	158	.62
g. Other	55	.21
1) Durable medical equipment		
2) Consultation to school		
3) Family consultation		
4) Consultation		
5) Home program		
6) Equipment repair		
7) Referral to outside agencies		
8) Treatment		
9) Case management		
10) Home evaluation		
11) Inservice training		
12) Clinic		

Continued...

- 13) Participation in Individual Education Plan Meetings
 - 14) Interagency communications
 - 15) None
 - 16) Ongoing in-home intervention
 - 17) Parent education for high risk infants
 - 18) Parent search
-

Table 21

Therapeutic Modalities Used (N=253)

	<u>n</u>	<u>%</u>
a. Fine motor activities	238	.94
b. Gross motor activities	232	.91
c. Developmentally sequenced activities	229	.90
d. Activities of daily living	221	.87
e. Neurodevelopmental treatment techniques	219	.86
f. Oral motor training	218	.86
g. Play activities	218	.86
h. Sensory integration techniques	217	.85
i. Muscle strengthening activities	203	.80
j. Proprioceptive neuromuscular Facilitation techniques	83	.32
k. Vision therapy techniques	73	.28
l. Other	36	.14
1) Splinting		
2) Neonatal Intensive Care Unit environment control		
3) Perceptual motor activities		
4) Adaptive equipment		
5) Range of motion		
6) Social development		

Continued...

- 7) Visual motor activities
 - 8) Adaptive computer technology
 - 9) Augmented communication devices
 - 10) Behavior modification
 - 11) Functional communication skills
 - 12) Group intervention
 - 13) Myofacial release
 - 14) Paraffin
 - 15) Affolter guiding
 - 16) Basic gait training
 - 17) Cognitive development
 - 18) Educational kinesthetics
 - 20) Educational kinesthetics
 - 21) Feeding and activities of daily living
 - 22) Heat
 - 23) Hippotherapy
 - 24) Infant massage
 - 25) Joint mobilization
 - 26) Pre-vocational training
 - 27) Respiratory activities
 - 28) Video fluoroscopy
-

90%), activities of daily living (N=221, 87%), neurodevelopmental treatment techniques (N=219, 86%), play activities (N=218, 86%), sensory integration techniques (N=217, 85%), oral motor training (N=218, 86%), muscle strengthening activities (N=203, 80%), proprioceptive neuromuscular facilitation techniques (N=83, 32%), vision therapy techniques (N=73, 28%), and other modalities (N=36, 14%) listed in Table 21.

A high percentage of occupational therapists surveyed reported that they provide discharge planning (N=180, 72%) as a follow-up service. The second highest percentage indicated that they provide transition planning (N=136, 54%). The other follow-up services (N=61, 24%) provided by occupational therapists are listed in Table 22.

Occupational therapists surveyed described providing consultation (N=235, 94%) as an indirect service. Occupational therapists also identified education (N=163, 65%) and case management services (N=113, 45%) as indirect services. Occupational therapists provide administration (N=98, 39%) services, and other indirect services (N=25, 10%). (See Table 23)

The occupational therapists surveyed indicated that they provide the following educational programs for other professionals: occupational therapy techniques in pediatrics (N=169, 71%), child growth and development (N=123, 52%), play activities and toys (N=119, 50%), evaluative tools (N=84, 35%), policies and procedures (N=67, 28%), and other programs (N=68, 28%) listed in Table 24.

Occupational therapists surveyed specified that they also provide educational services for caretakers on the following: home programming (N=219, 86%), play activities and toys (N=216, 85%), and educational services for child development (N=198, 78%), community resources (N=198, 78%),

Table 22

Follow-up Services Provided (N=250)

	<u>n</u>	<u>%</u>
a. Discharge planning	180	.72
b. Transition planning	136	.54
c. Other	61	.24
1) None		
2) Home program		
3) Reassessment		
4) Referral and follow up ICNN		
5) Teacher follow up / school consultation		
6) Consultation		
7) Out patient rehabilitation clinic		
8) Telephone contact		
9) Follow up consultation from evaluation		
10) Referrals to other agencies		
11) Case conference		
12) Depends on family and funds		
13) Direct treatment		
14) Home follow up		
15) Informal recommendations to community programs		
16) Case management		

Continued...

- 17) Parent interview
 - 18) Reassessment by mail
 - 19) Regional center placement
 - 20) Screening
 - 21) Transitional programs
-

Table 23

Indirect Services Provided (N=249)

	<u>n</u>	<u>%</u>
a. Consultation	235	.94
b. Education	163	.65
c. Case management	113	.45
d. Administration	98	.39
e. Other	25	.10
1) Equipment		
2) Inservice education to educational staff		
3) Home programs		
4) Maintain paperwork		
5) None		
6) Splinting		
7) Consultation with community therapist		
8) Coordination of referrals		
9) Evaluation procedures		
10) Grant writing		
11) Medical coordination		
12) Parent training		
13) Peer review quality assurance		
14) Program promotion		
15) Public relations		

Table 24

Educational Programs Provided for Other Professionals
(N=236)

	<u>n</u>	<u>%</u>
a. Occupational therapy techniques in pediatrics	169	.71
b. Child growth and development	123	.52
c. Play activities and toys	119	.50
d. Evaluative tools	84	.35
e. Policies and procedures	67	.28
f. Other	68	.28
1) None		
2) Feeding techniques		
3) Use of adaptive equipment		
4) Sensory integration		
5) Lifting		
6) Positioning		
7) Class program		
8) Inservice teachers		
9) Oral motor function		
10) Technology consultation		
11) Adaptations to the environment		
12) Medical staff education		

Continued...

- 13) Wheel chair use
 - 14) Neonatal Intensive Care Unit environment
 - 15) Range of motion
 - 16) Breast feeding techniques to parents and
nurses
 - 17) Consultation as needed
 - 18) Dressing
 - 19) Durable medical equipment
 - 20) Hippotherapy
 - 21) Informal meetings
 - 22) Information on cognitive levels
 - 23) Inservice new employees
 - 24) Motor group
 - 25) Mouthstick evaluation and use
 - 26) OT screening
 - 27) Parent child intervention issues
 - 28) Perceptual motor activities
 - 29) Resource specialist
 - 30) Time management
 - 31) What is OT?
-

Table 25

Educational Services Provided for Caretakers (N=252)

	<u>n</u>	<u>%</u>
a. Home programming	219	.86
b. Play activities and toys	216	.85
c. Educational Services for child development	198	.78
d. Community resources	198	.78
e. Purpose of occupational therapy techniques in pediatrics	165	.65
f. Social and behavioral problems	130	.51
g. Other	27	.10
1) Equipment		
2) Feeding techniques		
3) Positioning		
4) Range of motion		
5) Technology education		
6) Wheelchair positioning and maintenance		
7) Body mechanics		
8) School issues (PL 99-142)		
9) Activities of daily living		
10) Caring for the acutely ill patient		

Continued...

- 11) Go between for home and other professionals
 - 12) Inservice
 - 13) Parenting issues
 - 14) Siblings
-

the purpose of occupational therapy techniques in pediatrics (N=165, 65%), and for social and behavioral problems (N=130, 51%). Other (N=27, 10%) educational services occupational therapists reported providing to caretakers are listed in Table 25.

CHAPTER 4

RESULTS

In this chapter, the results of the data are presented in two sections corresponding to the research questions. The first question concerns the current standard practice of occupational therapy, which the American Occupational Therapy Association (1989) defines as the typical kind of occupational therapy service that is available. The questionnaire was designed to reflect the standard practice described in the literature, so section one describes the responses to the questionnaire that were cited by fifty percent or more of the respondents. The second question explored some of the indications of best practice, or approaches to occupational therapy that go beyond that which is typically available (AOTA, 1989). The responses that were written onto the questionnaire are discussed to show indications of best practice. A response by fifty percent or more of the subjects was required to be considered a trend.

Question 1

What is the current standard practice for occupational therapy with children from birth to five years of age?

Occupational therapists who have worked in occupational therapy for over ten years ($N=131$, 51%) tend to reflect standard practice for California occupational therapists working with children from birth to age five. They also reported that the other disciplines on the same staff include physical therapists ($N=183$, 75%), speech therapists ($N=156$, 64%), administrative staff ($N=153$, 63%), physicians

(N=138, 57%), social workers (N=132, 54%), educational staff (N=123, 50%), and nurses (N=122, 50%). The therapy services tend to be provided at school campus clinics (N=126, 50%).

Occupational therapists use documentation (N=212, 83%), informal telephone interviews (N=193, 76%), informal meetings (N=181, 71%), and formal case conferences (N=171, 67%) to share information with other agencies and/or professionals involved with the child and family. They tend to share information on a particular client with other agencies on an as needed basis (N=232, 92%).

Documentation of services tends to be reported on institution documentation forms (N=157, 62%), and documentation tends to be recorded for an individual client for each treatment session (N=151, 59%).

Occupational therapists providing standard practice tended to receive county and state funds for their services (N=198, 78%) and for their equipment (N=126, 50%).

A majority of the occupational therapists surveyed indicated that they provide services for all of the age ranges listed: three to five year (N=231, 91%), school aged children (N=208, 82%), one to two year (N=209, 82%), and infants (N=191, 75%). They also described providing services for the following special needs: neurological impairments (N=218, 85%), general developmental delays (N=209, 82%), orthopedic handicaps (N=186, 73%), at-risk conditions in infants (N=159, 62%), sensory integrative disorders (N=158, 62%), and learning handicaps (N=127, 50%).

Occupational therapists reported communication with the family through informal meetings (N=208, 81%) and informal telephone interviews (N=185, 72%). They also communicate during formal case conferences (N=144, 56%) and while performing co-treatment with caretakers (N=134, 53%). The

frequency of communication with families is determined by an as needed basis (N=143, 56%) in some cases. And for many occupational therapists, the frequency of communication reflects treatment frequency, because it is performed at each treatment session (N=130, 51%).

Client populations for occupational therapy are identified through referrals (N=227, 90%), and program eligibility (N=129, 51%). Occupational therapists provide evaluations (N=248, 98%) and program implementation (N=239, 94%) for direct services. Program planning (N=230, 90%), re-evaluation (N=241, 95%), discharge planning (N=203, 80%) and screening (N=158, 62%) are also direct services provided by occupational therapists.

Occupational therapists use fine motor activities (N=238, 94%) and gross motor activities (N=232, 91%) to treat their clients. Occupational therapists also provide developmentally sequenced activities (N=229, 90%), therapeutic play activities (N=218, 86%), and training for activities of daily living (N=221, 87%) for their clients. They employ neurodevelopmental treatment techniques (N=219, 86%) and sensory integration techniques (N=217, 85%) as well. Occupational therapists provide oral motor training (N=218, 86%) and muscle strengthening activities (N=203, 80%).

The occupational therapists surveyed reported that they provide discharge planning (N=180, 72%) and transition planning (N=136, 54%) as the follow-up services provided to their clients.

The indirect services provided by occupational therapists are consultation (N=235, 94%) and education (N=163, 65%). The educational programs provided for other professionals cover topics such as occupational therapy techniques in pediatrics (N=169, 72%), child growth and

development (N=123, 52%), and play activities and toys (N=119, 50%). The educational programs provided for caretakers include the purpose of occupational therapy techniques in pediatrics (N=165, 65%), and social and behavioral problems (N=130, 51%).

Question 2

What are some of the indications of best practice for occupational therapy with children from birth to five years of age?

The responses of occupational therapists in California who provide services to children from birth to five years of age indicated that there is provision of services for a diversity of programs such as California Children's Services (N=20, 8%), acute care hospitals (N=26, 10%), out patient units (N=10, 10%), intensive care neonatal units (N=9, 4%), clinics, pediatric rehabilitation units, infant programs (N=8, 3%), developmental centers (N=5, 2%), early intervention programs (N=4, 2%), and university programs (N=3, 1%).

Occupational therapists reported that they are including recreation therapists (N=7, 3%), vision specialists (N=5, 2%), and therapy technicians (N=3, 1%) in their programs. This interaction of occupational therapy with multidisciplinary teams goes beyond that which is typically available.

The responses of the therapists surveyed indicated that occupational therapists are practicing with children from birth to five years of age in hospitals (N=30, 11%) and in private clinics (N=17, 7%). Occupational therapy services are provided through hospital out patient clinics (N=15, 6%), neonatal intensive care units (N=7, 3%), medical centers, and occupational therapy units, and rehabilitation hospitals (N=4, 2%).

Occupational therapists reported that within their realm of practice is the participation in individual educational plan meetings ($\underline{N}=18$, 7%), clinics ($\underline{N}=6$, 2%) and medical conferences ($\underline{N}=3$, 1%), and also the use of periodic written reports ($\underline{N}=5$, 2%) with which to report information to other professionals and/or agencies involved with a particular client.

The responses of occupational therapists surveyed suggested that an indication for best practice is reflected in the documentation practices of occupational therapists. Thirty-eight (15%) occupational therapists use assessment and progress reports, twelve (5%) use notes, and three (1%) use consultation reports document services.

The occupational therapists surveyed indicated that they are providing services for drug addicted infants ($\underline{N}=6$, 2%), children with feeding disorders ($\underline{N}=5$, 1%), children with multiple handicaps, and children with muscle disorders ($\underline{N}=3$, 1%) in their occupational therapy practice.

Some of the responses given by the occupational therapists surveyed suggested that the means by which occupational therapists communicate with the family reflected an indication of practices that go beyond that which is typically available. For example, some occupational therapists communicate at each treatment session ($\underline{N}=18$, 7%), other occupational therapists communicate with the families through informal notes ($\underline{N}=7$, 2%) and through reports ($\underline{N}=4$, 1%). Occupational therapists report that they communicate with the family as needed, through home programs, and during home visits ($\underline{N}=3$, 1%).

The responses of the occupational therapists surveyed indicated that parent requests ($\underline{N}=22$, 8%), admission to hospitals ($\underline{N}=7$, 2%), and weekly pediatric rounds ($\underline{N}=3$, 1%)

are sources for identification of the client population in their practices.

The direct services that occupational therapists reported providing include supplying durable medical equipment ($N=12$, 4%), consultation to schools ($N=7$, 2%), and family consultations ($N=8$, 3%). Home programs and equipment repair ($N=4$, 1%) were also described by occupational therapists as direct services in their practices.

Occupational therapist's responses indicated the use of vision therapy techniques ($N=73$, 28%), splinting ($N=5$, 1%), and perceptual motor activities ($N=4$, 1%) as therapeutic modalities for the treatment of their clients in their occupational therapy practices. Occupational therapists also identified NICU environment control ($N=4$, 1%), adaptive equipment, and social development ($N=3$, 1%) within their realm of treatment modalities. Occupational therapists indicated that range of motion and visual motor activities ($N=3$, 1%), are modalities they use to treat their clients.

In response to the question regarding follow-up services, occupational therapists identified home programs ($N=8$, 3%) and reassessment ($N=7$, 2%) as some of the follow up services that they provide in their practices. Occupational therapists also reported providing referral and follow-up for ICNN units ($N=5$, 2%), teacher follow-up/school consultation, and other consultation services ($N=4$, 1%) to follow up their services to their clients. Occupational therapist's responses also report the provision of follow-up services through out-patient rehabilitation clinics, telephone contact ($N=4$, 1%), follow-up consultation from evaluations, and referrals to other agencies ($N=3$, 1%). Provision of equipment was reported as indirect service by 5 (2%) occupational therapists.

Occupational therapist's responses suggest indications for indirect services include the provision of equipment (N=5, 2%).

Occupational therapists indicated that within their practices they provide information on feeding techniques (N=10, 4%), the use of adaptive equipment (N=8, 3%), and sensory integration (N=6, 2%) in educational programs for other professionals.. Occupational therapists describe providing education on lifting, positioning (N=5, 2%), class programs, and oral motor function (N=4, 1%) for other professionals. Occupational therapists provide inservices for teachers, technology consultation (N=4, 1%), information on adaptations to the environment, medical staff education, and information on wheel chair use (N=3, 1%).

Occupational therapists identified equipment (N=8, 3%), feeding techniques (N=6, 2%), and positioning (N=4, 1%) as topics of educational services which they provide to families as a part of their practice. They also report informing the family about such topics as range of motion, technology education, and wheelchair positioning and maintenance (N=3, 1%).

CHAPTER 5

IMPLICATIONS, RECOMMENDATIONS, AND SUMMARY

This study provided descriptive information on the current practice of occupational therapists in California for children age five and under, and indicated directions in which occupational therapy service provision to this population is beginning to reach beyond standard practice to best practice.

It was found that occupational therapists are providing a wide range of services that are considered standard practice. The direct services which occupational therapists reported include screening, evaluation, program planning, treatment, and re-evaluation. Indirect services occupational therapists reported providing include consultation and case management.

It was also found that there were indications of a potential for services by occupational therapists for best practice which are believed to be needed to meet the challenges of the 1990's, such as understanding some of the factors that influence interaction with families. The responses of occupational therapists indicated that in standard practice most communication with families occurs on an as needed basis through informal meetings or telephone calls, and/ or during treatment sessions. However, the occupational therapists surveyed also indicated that there is a move toward increased occupational therapy interaction with families through family needs assessments, and through other avenues of communication such as reports, informal notes, home programs and home visits. This would be

required as evidence of best practice as reported by Dunn (1989). Other indications of best practice suggested by occupational therapist's responses were collaborative efforts to be a part of multidisciplinary teams, providing indirect services as case managers, and providing durable medical equipment.

The respondents described consultation and education as the primary indirect services provided. Their responses reflected the indirect services described in the literature as they reported providing consultation to community agencies. They reported providing consultation for preschools, nursery schools, head start programs, parent and child centers, child and youth projects, and day care facilities among other places. Occupational therapists described the provision of consultation or in-service education for staff and other caretakers on the use of activities to promote growth and development. For example, they reported that they make suggestions for environmental alterations, helpful ways of handling and positioning the child for making eye contact, for verbal interaction, for play activities or adaptations for toys to promote play activities that will facilitate growth and development.

Implications

This study was based on the theoretical framework which views individuals as growing cyclical systems that are developing within their environments. When the internal systems or the sub-systems within systems are disrupted due to injury, disease, or environmental inputs to the system's cycle, the system's development as a whole is interrupted. The results of this study suggested that occupational therapists are providing services which give direct and indirect input to systems to help prevent disruptions of the

cycle, to identify gaps in the system's growth and development, and to provide developmental input to promote the continuance of growth within, and of the cycle. For example, occupational therapists are providing screening and evaluation services to identify children with dysfunctional systems. They are providing therapeutic treatment and indirect education and counseling to influence the environments surrounding these children's systems. They are providing follow-up services to help to maintain the continuance of development of these cycles.

Since many of the indications of best practice reflect the requirements of occupational therapists by Public Law 99-457, the findings indicate a need for occupational therapists to understand the 1986 amendment to the Education for the Handicapped Act (EHA) which revised Part B-- Handicapped Children Aged 3-5, and added a new Part H-- Handicapped Infants and Toddlers.

For instance, Part B of PL 99-457 describes requirements, and the respondents in this study gave responses that relate to two of those requirements. The first requirement is that both educational and related services are to be provided to students with special needs. It is a standard practice for an occupational therapist to provide services at a school site. Thus, there is ample opportunity for occupational therapists to provide services to students through direct intervention such as treatment, and indirect intervention such as consultation with the teacher or family. The second requirement is that services be documented via the Individualized Education Program (IEP). The responses from occupational therapists suggested that some occupational therapists are taking an increasingly active role in the IEP process. There are indications of occupational therapists using IEP meetings and the IEPs

themselves as opportunities for communication with families and other professionals.

In 1975, Public Law 94-142 (PL 94-142) Part B of the EHA was enacted, with the requirement that services for children under six years of age were to be included in government regulation for children's services. In 1986, Public Law 99-457 was amended to the EHA and Part B was expanded to provide special education and related services to preschool children with developmental disabilities aged three to five years. Also, Part H was added, creating an early intervention program for infants and toddlers with developmental delay. The definition of an early intervention program includes occupational therapy. A large percentage of the respondents indicated that they provide services to three to five year old children, a slightly smaller percentage indicated that they provide services to one to two year old children, and an even smaller percentage indicated that they provide services to infants. This distribution of service provision seems to reflect the changes in the requirements made by the government for the provision of services to children in these age ranges in that there is a greater percentage of services directed toward children age three to five than the percentage of services directed toward children age one to three or to infants.

The responses of occupational therapists in this study indicated that they address some of the needs identified by PL 99-457 in its encouragement for states to develop an interagency system. For example, occupational therapists are working in a variety of sites and programs to enhance infant development and minimize delay such as educational sites and programs, hospitals, California Children's Services Medical Therapy Units, and other medically oriented

sites and programs, and early intervention programs such as Head Start programs. By providing occupational therapy services to these programs, occupational therapists can help these programs in their efforts to be cost effective by reducing future educational costs (Oliver, 1980), and they can also assist in establishing community based programs, reducing the likelihood of institutionalization (AOTA, 1979). Occupational therapists responses also suggested an indication of best practice through increased support for families in their quest to meet their children's special needs as discussed earlier.

Provisions of Part H require that each state establish a comprehensive child-find and referral system, and provide for timely multi-disciplinary evaluations and family needs assessments. The responses of the occupational therapists indicated that they provide evaluation services as a standard part of their practices and they are often part of a multidisciplinary team. There is also an indication of occupational therapist provision of family needs assessments.

Hanft (1988) noted the fact that there is little overlap between health and education programs in the majority of the states; therefore, cooperative agreements and lines of communication must be developed between health and education agencies at the local, state, and federal levels. The responses of the occupational therapists surveyed addressed this point on a local scale. Their responses indicated that they communicate with other professionals through informal meetings and telephone interviews and through formal case conferences in their standard practice, and this communication takes place usually on an as needed basis. The responses indicated a tendency toward best practice in occupational therapy

through communication with other professionals and agencies involved with the client during regular multidisciplinary team meetings, individual educational plan meetings, reports, clinics, and medical conferences. There are also indications of an increased frequency of communication with other professionals and agencies.

An additional implication of this study is a need to focus on learning about occupational therapy's role on a multidisciplinary team, and on learning communication skills. Emphasis is needed for education in these areas because they are required to perform in a variety of practice arenas, in a variety of roles, and with a variety of other professionals. Occupational therapists are also required to perform a variety of roles other than that of therapist, such as case manager, consultant to families and other professionals, and administrator. Thus, there is a need for occupational therapy students to be taught about medical administration and education as well as treatment. There is also a need for educators to focus on teaching occupational therapy students about the identification of family needs and the provision of services to families.

Recommendations

As a result of this research, a number of recommendations for further study can be made:

1. A more extensive national or regional study could be made to explore the role of occupational therapists with children from birth to age five.
2. The questionnaire used in this study could be redesigned to elicit specific information about provision of services to older age groups of children.

3. A study could be undertaken with a larger sample to identify the changes in the indications of best practice by extension and comparison with the results of this study.

4. A study could be conducted of the practices of occupational therapy that currently follow the provisions set forth by PL 99-457.

5. A study could be made of the specific factors that influence the provision of services to families.

6. A repeat of this study could be conducted after a period of time, such as five years, to examine changes in standard and best practices.

Summary

The purpose of this study was to determine the current practice of occupational therapists in California for children age five and under, and identification of best practice service provision by occupational therapy for this population. Data were collected from two hundred fifty four occupational therapists in California who are working with children from birth to five years of age by a mailed questionnaire.

The two research questions generated for their study were addressed:

1. What is the current standard practice for occupational therapy with children from birth to five years of age?

2. What are some of the indications of best practice for occupational therapy with children from birth to five years of age?

The results of this study indicated that occupational therapists are providing a variety of direct and indirect services to children. Occupational therapists who fell within the definition of standard practice tended to provide

direct and indirect services as described in the literature and outlined in the questionnaire. For example, occupational therapists provide the direct services of screening, evaluation, treatment, and discharge planning. They also provide the indirect services of consultation and education. The responses that the occupational therapists provided also suggested indications of best practice that follow the recommendations of the 1986 amendment to the Education for the Handicapped Act, Public Law 99-457 (PL 99-457). For instance, the responses indicated a move toward a multidisciplinary team approach to practice and an expanded focus on family needs.

Implications for the profession of occupational therapy were identified based on this study, and recommendations for further studies were made.

REFERENCES

- American Occupational Therapy Association Ad Hoc Committee of the Commission on Practice (1979). Role of the occupational therapist in the promotion of health and prevention of disabilities. American Journal of Occupational Therapy, 33, 50-51.
- American Occupational Therapy Association. (1989). Guidelines for occupational therapy services in early intervention and preschool services. Rockville, MD: Author.
- Bazyk, S. (1989). Changes in attitudes and beliefs regarding parent participation and home programs: An update. American Journal of Occupational Therapy, 43, 723-728.
- Clark, P. N. & Allen, A. S. (1985). The role of occupational therapy in pediatrics. In P. N. Clark & A. S. Allen (Eds.), Occupational therapy for children (pp. 2-9). St. Louis, MO: The C.V. Mosby Company.
- Dunn, W. (1989). Occupational therapy in early intervention: New perspectives create greater possibilities. American Journal of Occupational Therapy, 43, 717-721.
- Florey, M. A. (1981). Early intervention with mentally handicapped children: A critical appraisal of applied research. Journal of Pediatric Psychology, 10, 305-323.
- Fuller, M. A. (1985). The role of occupational therapists in employer supported child care. Unpublished master's thesis, San Jose State University, San Jose, CA.
- George, N. M., Braun, B. A., & Walker, J. M. (1982). A prevention and early intervention mental health program for disadvantaged preschool children. American Journal of Occupational Therapy, 36, 99-106.

- Gorga, D. (1989). Occupational therapy treatment practices with infants in early intervention. American Journal of Occupational Therapy, 43, 731-736.
- Guralink, D. B. (Ed.). (1983). Webster's New World Dictionary of the American Language. (rev. ed.). New York: Warner Books, Inc.
- Hanft, B. (1988). The changing environment of early intervention services: Implications for practice. American Journal of Occupational Therapy, 42, 724-731.
- Hinkle, P. D. (1989) California special education programs: A composite of laws. Sacramento, CA: California State Department of Education.
- Lawlor, M. C. & Henderson, A. (1989). A descriptive study of the clinical practice patterns of occupational therapists working with infants and young children. American Journal of Occupational Therapy, 43, 755-764.
- Llorens, L. A. (1971). Occupational therapy in community child health. American Journal of Occupational Therapy, 25, 335-339.
- McIlroy, M. A. & Koranyi, K. I. (1985). General pediatric health care. In P. N. Clark & A. S. Allen (Eds.), Occupational therapy for children (pp. 66-76). St. Louis, MO: The C.V. Mosby Company.
- Miller, L. J. (1989). Development of the Miller screening for preschoolers. American Journal of Occupational Therapy, 43, 596-601.
- Morris, A. G. (1978). Parent education in well baby care: A new role for the occupational therapist, American Journal of Occupational Therapy, 32, 75-76.
- Oliver, C. E. (1990). A sensorimotor program for improving writing readiness skills in elementary age children, American Journal of Occupational Therapy, 44, 111-116.

- Oyster, C. K., Hanten, W. P., & Llorens, L. A. (1987).
Introduction to research. Philadelphia: J.B. Lippincott
Company.
- Schaaf, R. C. (1990). Play behavior and occupational
therapy. American Journal of Occupational Therapy, 44,
68-75.
- Sents, B. E. & Marks, H. E. (1989). Changes in preschool
children's IQ scores as a function of positioning.
American Journal of Occupational Therapy, 43, 685-687.
- Stangler, S. R., Huber, C. J., & Routh, D. K. (Eds.).
(1980). Screening growth and development of preschool
children: A guide for test selection. New York: McGraw-
Hill Book Co.
- Stoller, C. C. (1984). Toward a unifying theory of
occupational therapy: A comparison and synthesis of
developmental and systems theories. Unpublished master's
thesis, San Jose State University, San Jose, CA.
- West, W. A. (1969). The growing importance of prevention.
American Journal of Occupational Therapy, 23, 226-231.

Appendix A

**Questionnaire for California Occupational Therapists
Working with Children from Birth to Five Years of Age**

Questionnaire for California Occupational Therapists
Working with Children from Birth to Five Years of Age

Directions: Please answer all the following questions. Answer the multiple choice questions by circling all that apply. Use the back of the forms if necessary except the last page. When you are finished with the questionnaire, fold it in half so the address and stamp are showing, staple or tape it, and drop it in the mail. THANK YOU!

I. DEMOGRAPHICS

1. What is your current position?
 - a. staff therapist
 - b. private practice therapist
 - c. part-time staff/part-time private practice
 - d. administrator
 - e. other (please specify)
2. How long have you worked in pediatric occupational therapy?
 - a. under 1 year
 - b. 1 to 5 years
 - c. 6 to 10 years
 - d. over 10 years
3. How long have you worked in occupational therapy?
 - a. under 1 year
 - b. 1 to 5 years
 - c. 6 to 10 years
 - d. over 10 years
4. In what county/ies do you provide services?

II. PROGRAM

1. For what type of program do you provide services?
 - a. child care center
 - b. pre-school
 - c. Head Start Program
 - d. public school program
 - e. private practice
 - f. state/county program
 - h. other (please specify)

2. Are there other occupational therapists on staff?
 - a. yes how many?
 - b. no

3. What other professionals are involved in your program?
 - a. administrative staff
 - b. educational staff
 - c. physical therapist
 - d. speech therapist
 - e. nurse
 - f. social worker
 - g. psychologist
 - h. physician
 - i. adaptive physical education teacher
 - j. other (please specify)

4. Where are occupational therapy services provided?
 - a. school campus clinic
 - b. off campus clinic
 - c. home setting
 - d. other (please specify)

5. How is information shared with other agencies and/or professionals involved with the child and family?
 - a. formal case conferences
 - b. informal meetings
 - c. regular multidisciplinary team rounds
 - d. informal telephone interview
 - e. documentation
 - f. other (please specify)

6. How often is information on a particular client shared with other agencies?
 - a. each treatment session
 - b. weekly
 - c. monthly
 - d. on an as needed basis

7. How are your services documented?
 - a. institute documentation form
 - b. Individual Education Plan (IEP)
 - c. Individualized Family Service Plan (IFSP)
 - d. other (please specify)

8. How often is documentation recorded for an individual client?
 - a. each treatment session
 - b. weekly
 - c. monthly
 - d. on an as needed basis
9. What source(s) provide funding for your services?
 - a. government grant funding
 - b. private foundation
 - c. education funds
 - d. county/state funds
 - e. other (please specify)
10. What source(s) provide funding for your equipment and supplies?
 - a. government grant funding
 - b. private foundation
 - c. education funds
 - d. county/state funds
 - e. other (please specify)

III. CLIENTS

1. For which age ranges do you provide services?
 - a. infants
 - b. 1 to 2 year olds
 - c. 3 to 5 year olds
 - d. school aged children
2. Identify the special needs groups for which you provide services.
 - a. general developmental delays
 - b. orthopedic handicaps
 - c. learning handicaps
 - d. speech impairments
 - e. mental retardation
 - f. sensory integrative disorders
 - g. social/emotional needs
 - h. neurological impairments
 - i. at-risk infants
 - j. auditory or visual impairments
 - k. other (please specify)
3. Do you perform a family needs assessment as a regular part of your services?
 - a. yes, every case
 - b. yes, almost every case

- c. yes, on an as needed basis
 - d. no
4. How do you communicate with the family?
 - a. formal case conferences
 - b. informal meetings
 - c. informal telephone interview
 - d. co-treatment with caretakers
 - e. other (please specify)
 5. How often do you communicate with the family?
 - a. each treatment session
 - b. weekly
 - c. monthly
 - d. on an as needed basis
 6. What percentage of your services are directed specifically toward family needs?

IV. OCCUPATIONAL THERAPY SERVICES

1. How is your client population identified?
 - a. referrals
 - b. screening
 - c. program eligibility
 - d. child find program
 - e. other (please specify)
2. What direct services do you provide?
 - a. screening
 - b. evaluation
 - c. program planning
 - d. program implementation
 - e. re-evaluation
 - f. discharge planning
 - g. other (please specify)
3. What therapeutic modalities do you use to treat clients?
 - a. sensory integration techniques
 - b. activities of daily living
 - c. neurodevelopmental treatment techniques
 - d. fine motor activities
 - e. muscle strengthening activities
 - f. developmentally sequenced activities
 - g. play activities
 - h. gross motor activities
 - i. oral motor training

- j. proprioceptive neuromuscular facilitation techniques
 - k. vision therapy techniques
 - l. other (please specify)
4. What type of follow up services do you provide?
- a. discharge planning
 - b. transition planning
 - c. other (please specify)
5. What indirect services do you provide?
- a. administration
 - b. consultation
 - c. education
 - d. case management
 - e. other (please specify)
6. What educational programs do you provide for other professionals?
- a. occupational therapy techniques in pediatrics
 - b. child growth and development
 - c. evaluative tools
 - d. play activities and toys
 - e. policies and procedures
 - f. other (please specify)
7. What educational services do you provide for caretakers?
- a. the purpose of occupational therapy techniques in pediatrics
 - b. home programming
 - c. social and behavioral problems
 - d. child development
 - e. play activities and toys
 - f. community resources
 - g. other (please specify)

Thank you for you time and energy in completing this questionnaire.

Appendix B

Cover Letter for Questionnaire

Cynthia Caraway, OTR
1400 Farren Road
Goleta, CA 93117-5319

Dear Occupational Therapist,

I am working toward my graduate degree in occupational therapy from San Jose State University. I am conducting research on the current practice of pediatric occupational therapy in California for my thesis.

I would greatly appreciate your input on this questionnaire, but your participation is voluntary. All responses are confidential and coded by serial number, instead of name. The questionnaire is stamped and addressed, so all you need to do is fill it out, staple it, and drop it in the mail.

However, if you would like to receive information on the results of this study, please fill out the personal information on the enclosed card and return it.

Thank you for your time and energy in helping me to conduct this research.

Sincerely,

Cynthia Caraway, OTR

Appendix C

Reminder Postcard for Respondents

This is the post card that is to be sent with the questionnaire, so that participants may request to see the results of this study.

Yes! I would like to receive information
on the results of this study.

Name: _____.

Institution: _____.

Address: _____.