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Assessment of the needs of occupational therapy managers for advanced management skills

Elizabeth G. Gomes
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Gomes, Elizabeth G., M.S.

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**ASSESSMENT OF THE NEEDS
OF OCCUPATIONAL THERAPY MANAGERS
FOR ADVANCED MANAGEMENT SKILLS**

**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
Elizabeth G. Gomes
May, 1991**

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ABSTRACT

ASSESSMENT OF THE NEEDS OF OCCUPATIONAL THERAPY MANAGERS FOR ADVANCED MANAGEMENT SKILLS

by Elizabeth G. Gomes

The rapid pace of changes in the health care field have placed additional demands on occupational therapy managers which entry level education does not fully prepare them to meet. This study was undertaken to investigate the needs of occupational therapy managers for training in advanced management and leadership skills. Survey research was used to obtain a self-assessment by managers of their level of expertise and need to develop in fifty skill areas. Respondents were compared based on years in management, organizational structure, and educational level.

Results from 159 questionnaires (a 39% response rate) indicated that respondents rated themselves as more highly skilled in human and technical skills than in conceptual skills. This finding held true for all groups compared. Differences in skill level ($p < .05$) were found to exist between newer and more experienced managers for all skill factors. Managers in for-profit organizations reported higher level of skills in presentation and marketing, while those with advanced degrees rated themselves higher in business and entrepreneurial skills. The results of this study may help those offering continuing management education to design their offerings to best meet the needs of managers at different career stages.

ACKNOWLEDGEMENTS

This study could not have been undertaken and completed without the assistance of many people. I am grateful to the occupational therapy managers who gave the time and effort to respond to the survey and participate in the pilot study. I hope that any improvement in the management training available will reward them for their efforts.

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CHAPTER 1

INTRODUCTION

Purpose

The purpose of the study was to examine the needs of occupational therapy managers for advanced management training. Specifically, the study sought to elicit a self-assessment by occupational therapy managers of the skills identified in the literature as those necessary for effective management and to consider the implications of this self-assessment within the framework of the Model of Human Occupation.

Statement of the Problem

Management and leadership have been identified by Gilfoyle (1987) as two of the critical areas for determining the future of the American Occupational Therapy Association (AOTA). Health care today is a multibillion dollar industry, with the focus shifting from not-for-profit to for-profit operation (Robbins, 1984). The current climate of change in the health care industry has placed escalating demands on managers for increased efficiency, productivity, and accountability of themselves and their departments. Since 1981 many programs which could not demonstrate a positive cost-benefit ratio have been eliminated (Jaffe, 1985b). This is a trend which promises to continue into the future. Therefore, the continued viability of occupational therapy within the health care system depends on the ability of its managers to sustain and promote the profession through the exercise of high quality management.

Few occupational therapists receive specific training in management skills prior to attaining positions as managers. Many are promoted to these positions due to seniority (Jaffe, 1985a) or clinical expertise (Kom, 1985) rather than through a preference for management. At this time the majority of occupational therapy managers have received their training at the baccalaureate level where emphasis is placed on education and training for clinical competence more than for management and leadership. A study by Gilewich (1979) found that 53% of managers had no specialized management training prior to becoming managers. After entering management, however, the total of those who had taken courses in management skills increased to 83%. The type of further training that they seek may have far reaching implications for the growth and development of the profession. There is a critical need for managers who are well trained and capable of sustaining and promoting occupational therapy both in the workplace and in the community. At the same time it is crucial for those in positions of leadership to understand and be able to communicate the uniqueness of occupational therapy. Thus, identification of skills needed by those in management and an understanding of the results of educational choices made by them, will have far reaching implications both for the managers themselves and for the educational institutions providing training.

Objectives

The objectives of the study were:

- 1) To learn how occupational therapy managers assess their competence in the management skills identified in the literature as necessary for effectiveness in management;
- 2) To explore their needs for acquiring further training in these skills;

- 3) To gain an understanding of variables which may affect the skills needed by managers in different settings and at different stages of their careers so that training may be offered in ways which are most beneficial to them.

Questions

The study sought to answer the following questions:

- 1) What are the advanced management skills identified by occupational therapy managers as areas of competence?
- 2) What are the advanced management skills identified by occupational therapy managers as areas of lesser skill?
- 3) Do the types of skills identified by those who have been managers for more than ten years differ from those who have been managers for less than three years?
- 4) Do the types of skills identified by managers in different organizational structures differ?
- 5) Do the types of skills identified by occupational therapy managers with advanced levels of education differ from those of managers with baccalaureate degrees only?

Definitions

Conceptual Definitions

Advanced management skills: tasks which are necessary to the effective supervision of personnel and the administration of an organization or department within that organization beyond the skill level taught in the entry level curriculum.

Area of competence: a management skill in which the manager experiences a sense of adequacy and success.

Areas of lesser skill: a management skill in which the manager does not experience a sense of adequacy and success.

Effectiveness in management: a consistency of individual competencies, job demands and organizational environment (Boyatzis, 1982) which promote the welfare of the organization, employees, and customers.

Manager: a person who directs or controls the work of an institution, department, or program (Random House Dictionary of the English Language, Unabridged Edition, 1973, p. 870).

Occupational therapist: a person who has completed an occupational therapy curriculum accredited by the American Occupational Therapy Association and the American Medical Association and has passed the examination necessary to be certified as an Occupational Therapist / Registered (OTR).

Occupational therapy manager: an occupational therapist who is acting in a management capacity, either as head of a department providing occupational therapy services or other services for which training qualifies him or her, or fulfilling management functions of staff or program supervision.

Organizational structure: the type of organization based ownership. Organizations typically differ in financial orientation, such as for-profit or not-for-profit; and control, such as private or public. Within the public sector there are different levels where control is based: city, county, state, or federal.

Skill: an ability which can be learned or developed and is demonstrated in performance rather than potential (Katz, 1974).

Operational Definitions

Areas of competence: A mark of 3 on a skill listed in question 1 of the data collection instrument will be considered to describe this concept (see Appendix A). To answer research question 1, the management skills with the ten highest mean scores will be considered to define this concept.

Areas of lesser skill: A mark of 1 on a skill listed in question 1 of the questionnaire (see Appendix A). For the purpose of answering research question 2, the management skills with the ten lowest mean scores will be considered to define this concept.

Intent to develop: For the purposes of this study this will be defined as a check or star in the section of the questionnaire labeled "Development/ Seek More" (see Appendix A).

Level of education: For the purpose of this study, this will be defined as 1) having achieved a baccalaureate level degree only or 2) having achieved an advanced degree at the master's or doctorate level.

Occupational therapy manager: An occupational therapist having a job title using the term manager, director, coordinator, chief, owner, or administrator of an institution or department, or who fulfills a job involving supervision of personnel and/ or a program area.

Assumptions

Occupational therapy education has traditionally placed little emphasis on teaching management skills. Only one course in management is mandated by AOTA standards for entry level competency. Therefore, it was assumed that many occupational therapists entering management initially feel a lack of preparation for the demands of the job. From acquaintance with the literature and this researcher's previous interactions with occupational therapy managers it was assumed that many individuals in this position were experiencing stress in performance of their role as manager and needed to acquire more skills.

It was assumed that development of greater competence in advanced management skills will benefit the individual manager, the business or institution by whom he or she is employed, and the profession of occupational therapy as a whole. It was further assumed that the most effective means of accomplishing this goal is in collaboration with the occupational therapy managers themselves.

It was assumed that the individuals surveyed understood the format and instructions of the instrument. It was also assumed that respondents were able to accurately assess their degree of expertise in the management skills listed and answered the questions as honestly as possible. Finally, it was assumed that the management skills listed in the instrument represent a fairly complete array of the skills required by managers in a wide variety of settings.

Limitations

The research is intended to provide a basic description of the perceived needs of occupational therapy managers. No attempt was made to classify respondents according to

place of education or to investigate individual educational programs for their concurrence with the trends noted in this paper. No data was collected on the content of educational programs or the individual performance levels of the respondents.

This was a study of only AOTA members who have stated that management is their primary job function on the most recent membership survey available at the time the study was conducted (1986). It may not be representative of other occupational therapy managers whose input would contribute further information.

No attempt was made to obtain a work history from respondents. It is possible that managers currently working in one type of organizational setting may have gained experience and management skills in another type of organization. The results of comparison of the groups on the basis of organizational type may be less reliable due to this limitation.

Finally, as the focus of the study was self-assessment, no attempt was made to measure the effectiveness of these managers from any perspective other than their own.

Significance of the Study

The need for occupational therapy managers to master management skills is widely discussed in the literature and by managers themselves. Both the American Journal of Occupational Therapy (1987) and Occupational Therapy in Health Care (1988) have devoted entire issues to the subject of management skills. The literature also suggests that occupational therapists are only partially prepared as a part of entry level education for management positions. The literature further suggests that after promotion to management positions many occupational therapists seek additional training. Bullard (1983) has stated that the current trends in healthcare necessitate that money spent on training and education be cost effective. In order for that training to be provided in a way that benefits managers,

the institutions which employ them, and the profession as a whole, it is imperative that a clear assessment be obtained of the actual needs of the population to be served. Making unfounded assumptions regarding such needs could result in a lack of fit between those facing the pressures of middle and upper management and the formats designed to convey information to them. Thus, identification of management skills most needed by occupational therapy managers can be of use both to managers and to those who would provide such training.

The uniqueness of this study is that it attempts to go beyond previous studies of occupational therapy managers to assess a very broad range of management skills encompassing all levels of expertise. It attempts to identify correlations that would allow those offering training in management skills to tailor the format and content of instruction to the needs of occupational therapists in management.

This study is part of a larger research effort (Diasio Serrett & Gomes, 1990) involving the use of interviews and focus groups, and other sample groups for the survey. The information obtained from that research consisted of both qualitative and quantitative data, providing breadth and depth to the overall study.

CHAPTER 2

LITERATURE REVIEW

Introduction

The literature presented a clear mandate for occupational therapists to increase their knowledge and use of advanced management skills in order to assume positions of leadership in the health care field. In 1977, an Ad Hoc Committee on Administrative Issues was appointed by the President of the American Occupational Therapy Association (AOTA) to identify issues in administration and management which had implications for members across the country (Lofton, Crabtree, Harlock, McFarland, & Sheffer, 1980a). The report of this committee stated that occupational therapists in general were reluctant to participate in management and to learn more about management theory. The committee defined three broad tasks of management: purpose and mission, productive work / worker, and social impact, and presented a model designed to assist managers to evaluate their settings. The recommendation in the report to the AOTA was to consider increasing the Association's active support of occupational therapists in management through publications, courses, and defined standards of practice. Although the committee did not make a definitive recommendation regarding the need for an Administration and Management Special Interest Section (AMSIS), such a section has since been established (Lofton, Crabtree, Harlock, McFarland, & Sheffer, 1980b).

In discussing future professional practice, Burke (1984) stated the need for occupational therapists to move into decision-making positions when she wrote:

We need to develop skills in business and management to support our roles as managers. To be effective and grow in the climate of increased technological

advances and escalating costs we need to combine the knowledge of the health environment and knowledge of our field. We need to learn about strategies for interacting effectively in business environments. (p. 28)

Jaffe (1985) stated that few occupational therapists are trained for leadership roles in administration. She stressed the importance of controlling occupational therapy services through assumption of positions in management if the profession is to survive and be competitive. The reasons for this go far beyond concerns with job security. Nelson and Schaefer (1980) suggested that an institution can only be as effective as its managers, and, further, that institutions develop in response to crisis. Today's crisis in health care is placing pressure on institutions to increase performance in order to ensure survival. This, in turn, leads to the need for greater effectiveness of the managers of these institutions. Improved management skills and abilities are not ends in themselves but serve to increase the performance of the institution and those it serves. To train effective occupational therapy managers is to help ensure that those in need of health care will continue to receive all necessary services.

Management Skills, Roles, and Functions

The classical management functions were described by Fayol (1949) as planning, organizing, commanding, coordinating, and controlling. For many years these have dominated the descriptions of managers' responsibilities. Many management textbooks still describe management in terms of these five functions (Carroll & Gillen, 1987). Bair and Gray (1985) described the role of the occupational therapy manager using a variation of these functions: planning, organizing, directing, controlling, evaluating, and communicating.

Mintzberg (1975) questioned the validity of the classical functions. He conducted a study of five chief executives, declared that Fayol's system of classification was no longer useful. Mintzberg described the activity of managers as being fragmented, brief, and dominated by oral communication. He proposed ten roles to describe managers' roles which fall into three broad categories: interpersonal roles (figurehead, leader, and liaison), informational roles (monitor, disseminator, and spokesman), and decision making roles (entrepreneur, disturbance handler, resource allocator, and negotiator). His findings have been criticized for their reliance on behavioral observations alone and failure to consider the reasons for management actions and the thought processes that underlie these actions (Carroll & Gillen, 1987). These authors suggested that the physical activities of managers are not fully descriptive of what they do. Other studies (Lau, Newman, & Broedling, 1980; McCall and Segrist, 1980; Snyder & Wheelen, 1981) failed to support the ten roles proposed by Mintzberg, and suggested that several of the roles overlapped. However, study of general managers by Kotter (1982) largely supported Mintzberg's findings that managers do not use the classical management functions in a formal sense but relied more on methods of cooperation and networking. Despite the appearance of informality, these methods were very effective in accomplishing traditional management goals.

A study by Gillen and Carroll (1985) supported the usefulness of the classical five functions as a descriptive tool. In their study, however, these were further refined and developed into eight functions: planning, representing, investigating, negotiating, coordinating, evaluating, supervising, and staffing. Supervising and planning skills were found to be significantly related to productivity and efficiency of the units; staffing and coordinating skills were significantly related to measures of unit performance.

Katz (1974) described three skills necessary for an effective administrator: technical skill, human skill, and conceptual skill. Technical skills are those involving the

tools, techniques, or analytical abilities which pertain to the specific discipline. Human skills involve the ability to provide effective interpersonal and team leadership and the ability to create an organizational climate which fosters trust and personal growth. This skill was further subdivided into intragroup skills and intergroup skills. Conceptual skills are those which involve the ability to see the organization as a whole and the interrelationship of all its parts. He further stated that different management levels had proportionately different needs for each skill. Lower level managers use proportionately more of the technical skills, while top executives more often utilize conceptual skills. Human skills are necessary at every level of management, but more so at the lower and middle levels where there is more contact between manager and subordinates. However, with the trend in health care toward decentralization, conceptual skills may assume a greater importance for middle managers than in the past.

To the three skills described by Katz, O'Neal (1985) added a fourth, foundation skills, which describe the elementary prerequisites for entering management. These are: the ability to communicate verbally and to narrate, to make numerical calculations, to manage one's time, to understand organizational etiquette, and to make ethical judgements. He discusses the effect on business of the trends in society proposed by Naisbitt (1982): Among these, changes such as the move from an industrial society to an information one, the increase of a high tech / high touch approach, the shift toward decentralization are altering what is needed by managers to function effectively. From these trends he identified what he considers to be the most important new skills for managers to develop to respond to change: entrepreneurial skills, strategic planning skills, and analytical skills. Other skills once considered requisite for effective management are now becoming obsolete due to the radical changes in society: analytical detachment, reward and control systems,

market driven business strategies, and maximization of production efficiency at the expense of future planning.

A model incorporating these diverse perspectives was proposed by Carroll and Gillen (1987). It incorporates the traditional management functions, the managerial activities found by Mintzberg, the work goals and tasks discussed by Kotter, and the skills and competencies proposed by Katz. The authors emphasize the need for continuing research to resolve inconsistencies in the findings and terminology of the different theorists.

Boyt Schell (1989) discussed the development of management skills in occupational therapists as a function of the needs and requirements of different managerial levels. She states that the earliest management skills developed are in the areas of supervision and program development, and interacting with other disciplines. The latter may serve as an impetus to develop skills of networking, negotiation, and basic marketing of occupational therapy services to colleagues within the organization. As the therapist advances to a supervisory role the skills needed shift to include development of staff as professionals and evaluation of staff members or students. Advancement to administration involves a shift from focus on individual staff to focus on the organization, a decrease in the amount of direct supervision, and an increase in the need for an ability to manage at a systems level. The administrator must be able to understand events occurring on a broader scale in the institution and in the world beyond, and how these forces affect the position of occupational therapy within the organization. She stated that many managers at this level find the need to pursue an advanced degree. Boyt Schell states, however, that in practice the roles of supervisor, manager, and administrator are often blurred. The duties of each level also may include performance of duties necessary at lower levels of the hierarchy.

Studies of Management in Health Care Fields

The nursing profession is facing a problem that is similar to that which faces occupational therapy. In both fields practitioners often return to school for further education and training after assuming positions in management. Like occupational therapists, many nurses choose to pursue advanced degrees in fields other than nursing, such as business administration, public health, and public administration. A study conducted by Duffy and Gold (1980) compared the preparation for management of those who had received masters degrees in nursing administration with those receiving masters degrees in non-nursing administration. In a sample of 76 nursing administrators, 43 of whom had received degrees in nursing administration, they found no significant differences in 11 of 18 areas; however, graduates of nursing administration programs were better prepared in the areas of research and program inservice education, while graduates of non-nursing administration programs were significantly better prepared in the areas of budgeting, marketing, and statistics. A more important finding was that neither group felt excellently prepared in the majority of management skills surveyed suggesting that both types of training were failing to completely prepare nursing administrators for management positions or to raise their level of confidence. The authors suggested that programs in nursing administration strengthen their curriculums by including coursework in budgeting, financial management, and marketing from non-nursing administration programs.

Another study compared master's level preparation of nursing administrators. The graduates of programs with an emphasis on administration and management (with and without a clinical component) were compared to clinical specialist programs with an administrative component. The study sought to assess the effectiveness of these three types of programs for training nursing administrators and the perceived satisfaction of the graduates (Price, 1984). Graduates of programs with an administration emphasis felt better

prepared and experienced greater satisfaction regardless of the addition of a clinical component to the program. This study identified the components which should be a part of an effective nursing administration curriculum. These were 1) administration and management, 2) financial management and budgeting, 3) organizational theory, 4) labor relations and human relations, 5) economics and political aspects of management, 6) research, and 7) a generalist approach to clinical subject matter.

A study of Directors of Nursing and their Chief Executive Officers (CEOs) at 250 hospitals attempted to define the components of effectiveness for nursing executives (Freund, 1985). The primary competency identified was general management / health / nursing knowledge which was chosen by 81% of the CEOs and 81.4% of the directors. The second most common response was human management skill which was given by 61.1% of CEOs and 76.2% of nursing directors. The categories chosen by Freund, however, were very broad and do not advance knowledge of how these groups might have rated their use of specific management skills.

Few studies of manager's skills and effectiveness appear in the occupational therapy literature although many articles have appeared supporting the need for and discussing ways to increase these skills. Kom (1985) pointed out the importance to novice managers of accurately assessing their skills. He reviewed studies which indicated that insecurity about management skills and role performance often led new managers to use strategies which undermined their effectiveness.

Brollier (1985) surveyed directors of hospital-based occupational therapy departments and their staffs to study the effect of managerial leadership on the job performance of staff occupational therapists. Results of the study indicated significant differences in the assessment of managerial styles of the directors. Managers generally rated their abilities higher than did their staff. Discrepancies correlated negatively with job

performance evaluations. This suggested that managers may need training in eliciting and using staff feedback to increase their own performance and that of their employees. The difference in perceptions of the two groups may indicate that motivation is a separate measure which may obscure accurate perception of performance. This study differs from others in the occupational therapy literature in that managers generally rated their skill in management highly. It also cast doubt upon the ability of managers to accurately assess their abilities in this area.

Ponciroli (1986) surveyed 136 occupational therapists at all levels of practice on their use of management skills. The study also sought the perceptions of the therapists regarding their preparation in these skills. Of those responding, 32% reported that they were unprepared in the use of management skills. The skills in which the fewest number indicated feeling prepared were grantsmanship, cost accounting, and participation in research. Occupational therapists perceived themselves as best prepared to use the management skills of communication with other professionals, to establish priorities, and to interpret occupational therapy to others. Ponciroli stated that many of those surveyed utilized human relations skills and perceived themselves as competent in this area. Despite this, many of the management skills which use this competency, such as staff supervision, performance evaluation, conflict management, and terminating staff, were perceived as needing further development. This study was not limited to those in management positions, but was based on the belief stated by Campbell (1978) that occupational therapists at all levels of practice use management skills and should be better prepared in this area. Although this concept has validity when using the term management in its broadest sense, this approach may not be useful in determining the specific needs of those occupying management positions. It is very likely that managers, with their different

responsibilities and job expectations, identify different skills as areas of strength and weakness than do staff therapists.

The Administration and Management Special Interest Section (AMSIS) of AOTA (1986) conducted a survey of its members on their needs for continuing education in management. Of the 35 skills surveyed, strategic planning, productivity, marketing, and reimbursement were identified by 169 of the 271 respondents as most crucial for their needs at this time. Other areas which received strong support were program development, quality assurance, leadership approaches, and multidisciplinary management.

Occupational Therapy Theory

Kielhofner (1985) expanded the concepts of the occupational behavior frame of reference into a model of the occupational nature of human beings. The model is intended to organize and represent the processes which comprise occupational function. He states that occupational therapy "is concerned with the adaptation of persons in terms of their occupational function and dysfunction" (p. 63). When applied to occupational therapy managers this model can be used to understand how management skills and the degree to which these skills meet the challenges of the environment, result in differing levels of adaptation and occupational function.

The Model of Human Occupation describes the human being as an open system which is composed of the interaction of three hierarchically arranged subsystems, volition, habituation, and performance, which interact with the environment (Kielhofner, 1985). The purpose of the model is to encourage a wholistic rather than reductionistic approach to analysis of occupational function.

The volitional subsystem is defined as "an interrelated set of energizing and symbolic components which together determine conscious choices for occupational

behavior" (Kielhofner & Burke, 1985, p. 14). Personal causation, a subcomponent of the volitional subsystem, encompasses the beliefs and expectations regarding personal effectiveness in the environment. This, in turn, is comprised of a belief in one's personal skills and the efficacy of those skills in meeting the challenges of the environment (Kielhofner & Burke, 1985). This study sought to uncover the belief of the respondents in the efficacy of their management skills and to make inferences from this regarding the occupational functioning of these managers.

Kielhofner and Burke (1985) have also described role functioning, a component of the habituation subsystem, as the point of output for the system. Role performance is dependent on adequate development and performance of skills. In turn, role performance is controlled and directed by the higher level functions of the volitional subsystem: personal causation, values, and interests. Roles are based on perceived incumbency, the belief that one occupies a role and that others recognize and relate to one in that role. Another subcomponent of role performance which affects the occupational therapy manager is internalized expectations. These are beliefs held by the individual regarding the expectations of others for role performance. The second component of the habituation subsystem is habit which Kielhofner and Burke described as an organizing function which structures routine performance of tasks and behavior and supports competence. In addition, the authors described the energy-conserving function of habits in that they operate without conscious thought thereby freeing the individual to invest time and thought in other areas.

The performance subsystem is the lowest level of the hierarchy and is composed of various types of skills. The two skill categories into which management skills would fall are process skills and communication/interaction skills. Process skills are those which are involved in managing events or processes in the environment, while communication/

interaction skills are interactional skills involved with exchanging information and working together with others toward common goals (Kielhofner & Burke, 1985). These skills are critical to performance as a manager and to the interaction of all subsystems that produce occupational function.

The essence, however, of the open system concept is that there is a constant and ongoing interaction between the person and the environment. As a result of this interactive process and the feedback which it generates there is a constant modification of input to the system (Barris, Kielhofner, Levine, & Neville, 1985). The person is aroused by stimuli in the environment to a level which either maximizes or diminishes occupational performance. Barris et al. have further stated that the volitional subsystem, chiefly the component of personal causation, is influential in determining the degree to which the individual is willing to take risks and seek challenges from the environment. If the person experiences a sense of adequacy and positive feedback from these interactions the belief in skills is reinforced.

Another characteristic of the environment which bears on the occupational performance of managers is that of environmental press. Barris et al. (1985) defined this concept as "environmental expectations for behavior" (p.44) which are recognized by the individual. Press is neither positive or negative in itself. If the degree of environmental press is significantly below the individual's level of competency the individual may experience boredom. If the press, however, is for behaviors and skills which the individual does not possess the individual will feel stress. This, in turn, can stimulate the individual to gain the new skills or to become overwhelmed and experience role dysfunction.

Summary

The occupational therapy literature contained multiple references to the need for training in management and leadership skills beyond the level of the entry level education. Differences were found in the management literature on the nature of managerial work and the skills required for effectiveness. These differences centered around the usefulness of the classical management functions to describe the actual work of managers.

Few research studies were found on the skill levels of occupational therapy managers or their needs for advanced training. One such study which was conducted by the Administration and Management Special Interest Section reported that the greatest needs of those surveyed were for continuing education in the areas of strategic planning, productivity, and reimbursement. Studies of managers in the nursing profession supported the need for acquisition of management skills beyond those taught in clinically oriented programs. The Model of Human Occupation provides a unifying framework for describing the occupational function of managers.

CHAPTER 3

DESIGN AND METHODOLOGY

Purpose

The purpose of the study was to examine the needs of occupational therapy managers for advanced management training. The study sought to elicit a self-assessment by occupational therapy managers of the skills identified in the literature as those necessary for effective management. The literature clearly indicated the importance of increasing management and leadership skills to the survival and growth of occupational therapy as a profession. Therefore, it appeared relevant to explore the perceived needs of occupational therapy managers for these skills. This study sought to explore both the level of current skills and the intent of managers to develop those skills.

Questions

The study sought to answer the following questions:

1. What are the advanced management skills identified by occupational therapy managers as areas of competence?
2. What are the advanced management skills identified by occupational therapy managers as areas of lesser skill?
3. Do the types of skills identified by those who have been managers for more than ten years differ from those who have been managers for less than three years?
4. Do the types of skills identified by managers in different organizational structures differ?

5. Do the types of skills identified by occupational therapy managers with advanced levels of education differ from those of managers with baccalaureate degrees only?

Hypotheses

The following null hypotheses have been generated to answer the research questions 3, 4, and 5:

1. There will be no difference in the level of management skills of occupational therapy managers with less than three years experience and managers with over ten years of experience.
2. There will be no difference in the level of management skills of occupational therapy managers working in different organizational settings.
3. There will be no difference in the level of management skills of occupational therapy managers with different levels of education.

Research Procedures

The study was conducted as descriptive research utilizing a survey questionnaire which was sent to occupational therapy managers across the United States. Descriptive research is an appropriate method of research when the intent is to document and describe a phenomenon (Oyster, Hanten, & Llorens, 1987). The survey method was chosen because it was the most feasible method for gathering information from a large number of occupational therapy managers across the country. In an attempt to further explore the relationship between the independent variables described, correlational statistical procedures were employed.

This study consists of a subset of a larger research effort (Diasio Serrett & Gomes, 1990). The entire study was comprised of survey research of various subgroups of occupational therapy managers, as well as qualitative research in the form of interviews and focus groups to supplement and expand the quantitative data gathered by the survey. The subgroup for which research is reported in this study represents a broad spectrum of occupational therapy managers across the United States.

Sample

The sample consisted of 404 occupational therapists who currently held management positions. The sample was drawn from a list obtained from the American Occupational Therapy Association (AOTA) of current members who had stated that administration and management was their primary job function in the member survey of 1986. This was the most recent member survey available at the time the study was conducted. All subjects were registered occupational therapists and identified themselves as managers by job title of manager, director, chief or administrator of a department, or otherwise indicated that they are functioning in a management capacity.

Instrument and Procedures

This study made use of a four page questionnaire to gather data (See Appendix A). The content was organized into three sections: demographics, management skills, and improving management skills.

Demographic data were gathered to aid in analysis of the resulting data according to several different independent variables (years in management, type of setting, type of

organizational structure, level of education). No attempt was made to control variables as only descriptive and correlational research was intended.

The list of management skills was developed through review of the literature. Articles on occupational therapy managers were the primary source: newsletters of the Administration and Management Special Interest Section, relevant articles in the American Journal of Occupational Therapy, and in Occupational Therapy in Health Care. A survey on continuing education needs conducted by the Administration and Management Special Interest Section was also examined and expanded upon. Relevant articles in allied health journals, especially nursing administration, and management literature were an additional source of information regarding the skills necessary for effective management. To help assure content validity the list of skills was refined and expanded through early interviews conducted as part of the larger study.

Degree of competence and experience with these skills was assessed by the use of a Likert scale from 1 (beginning) to 3 (advanced). Survey recipients were also asked to indicate their degree of interest in developing each management skill.

The validity of the instrument was further verified by seeking the advice of four experts knowledgeable in management and market research. These experts assessed the clarity, accuracy, and design of the questionnaire. Changes were incorporated based on their recommendations.

A pilot study was conducted with sixteen occupational therapists who are currently or have been in management positions. An attempt was made to include managers from a wide variety of practice areas and organizational type. This was done to reflect the variety expected in the intended sample. Through this means the researcher attempted to ascertain if the management skills listed were clear, comprehensible, and adequately covered the skills needed by occupational therapy managers in different practice settings. All

participants were located in the San Francisco Bay Area. The pilot study attempted to assess overlapping areas or redundancies in the instrument and the length of time necessary to complete the form. Areas that two or more participants noted as confusing or otherwise questionable were reworded or eliminated. The questionnaire was revised at each step of the process until it assumed its final form.

Data Collection

Questionnaires were mailed along with a cover letter (See Appendix B) to the 404 occupational therapists on the AOTA list. Survey recipients were asked to return the questionnaire within a two week period. Those who had not responded were sent another copy of the questionnaire with a different cover letter (See Appendix C). Final tabulation of data was based on response to both mailings.

Data Analysis Procedures

The services of a statistical consultant were used by the researcher to assist with analysis of the data. The statistical software used to analyze the data was Statistical Analysis Software.

Descriptive statistics were used to analyze the demographic data . Means and standard deviations were determined for each of the management skills as they were rated by respondents on a Likert scale. The means were then rank ordered from highest to lowest. The perceived needs of managers for development of skills were rank ordered according to the percentage of respondents who indicated a wish for further development in each of the management and leadership skills.

The "types of skills" variables were derived from factor analysis which reduced the fifty discrete management skills questionnaire items to clusters that yielded five factors. The factors were: business/ entrepreneurial skills, team development skills, interaction skills, operational skills, and presentation/ marketing skills (Diasio Serrett & Gomes, 1990). These "types of skills" variables were correlated with years in management, organizational structure, and educational level. The skills which grouped together on the basis of the factor analysis appear in Appendix D. The accepted level of significance for the data analysis of this study was $p \leq .05$.

CHAPTER 4

DATA AND RESULTS

Introduction

The results and interpretation of the data follow in two sections: demographics and research findings. Findings are presented as they relate to both the objectives of the research and the research questions. Data are presented in both narrative and table form. Where more than one answer was allowable, the total percentage of responses is greater than one hundred percent. In the narrative portion the descriptive data are presented in order from highest or most frequent to lowest or least frequent response. Percentages are rounded to the nearest whole value. In the tables, the data appear as they do in the questionnaire.

Demographics

Of the 404 questionnaires mailed 186 were returned (46.0%). Twenty seven were not useable due to job title or other information indicating that the respondent did not occupy a management position, or failure to complete the questionnaire. This yielded a final sample size of 159, or 39.4% of the respondents. Occupational therapy managers who responded to the questionnaire were asked to identify the job title of their present position. It was found that specific job titles varied greatly and so an attempt was made to group the respondents in a hierarchical fashion corresponding to apparent management level. Several respondents did not have titles which denoted management, but clearly indicated that their jobs involved functioning as a manager, such as supervision of other staff. A few respondents were sole members of departments but had responsibility for

budgeting, program development and functioned within the organization as a manager. Those not clearly indicating such management function were not included in the tabulation of data.

The greatest number of respondents were middle managers (80%). Thirteen percent were in upper management and 4% were in lower management positions. The remaining 3%, who were primarily consultants and program managers did not clearly fall into any of these categories. Respondents identified their job titles as follows: director of occupational therapy ($n = 77$, 48%), director of multidisciplinary department ($n = 50$, 32%), owner/ Chief Executive Officer/ Chief Operating Officer ($n = 16$, 10%), senior occupational therapist ($n = 7$, 4%), consultant or program specialist ($n = 5$, 3%), and administrator or other upper management position ($n = 4$, 3%) (Table 1).

The questions regarding practice setting and area of practice were ones in which respondents were asked to check as many areas as applied. A large number reported managing or working in more than one setting ($n = 59$, 37%), and practice area ($n = 114$, 72%). The largest proportion reported working in acute care hospitals ($n = 70$, 44%), followed by rehabilitation hospital or unit ($n = 49$, 31%), outpatient facility ($n = 46$, 29%), skilled nursing facility ($n = 36$, 23%), community agency ($n = 31$, 19%), and private practice/ clinic ($n = 24$, 15%). The greatest number of respondents identified their area of practice as physical disabilities ($n = 106$, 66%), followed by gerontology ($n = 70$, 44%), mental health ($n = 57$, 36%), pediatrics ($n = 57$, 36%), work related ($n = 49$, 31%), developmental ($n = 44$, 28%), and school based ($n = 19$, 12%).

A total of 149 respondents identified the type of organization in which they worked, with 10 responses missing. Forty two percent reported working for an organization that is private non-profit ($n = 62$), 22% in private for-profit ($n = 33$), 20% for federal/ state

Table 1

Demographic Characteristics of Respondents

Variable	Responses	%
Current job title (n=159)		
Upper Management		
Owner/ CEO/ COO	16	10
Administrator	4	3
Middle Management		
Director (multidisciplinary)	50	32
Director of Occupational Therapy	77	48
Lower Management		
Senior Occupational Therapist/Supervisor	7	4
Other		
Consultant/ Program Manager	5	3
Practice setting* (n=159)		
Acute care hospital	70	44
Outpatient facility	46	29
Rehabilitation hospital or unit	49	31
Skilled nursing facility	36	23
Private practice or clinic	24	15
Community agency	31	19
Type of organization (n=148)		
Private for profit	33	22
Private non-profit	62	42
Public non-profit	9	6
Community non-profit	6	4
Federal/ State	30	20
Own business	9	6

* More than one response allowed

Note. Values are rounded to nearest whole number

continued...

Table 1

(continued)

Demographic Characteristics of Respondents

Variable	Responses	%
Areas of practice* (n= 159)		
Physical disabilities	106	66
Mental health	57	36
Developmental	44	28
Gerontology	70	44
Pediatrics	57	36
School-based	19	12
Work-related OT	49	31
Locale of practice (n=148)		
Rural	12	8
Suburban	19	13
Small city (less than 100,000)	33	22
Small city in metropolitan area	11	7
Large city (over 100,000)	74	50
Number of years in OT practice (n=157)		
1 - 4	1	1
5 - 9	20	13
10 - 14	57	36
15 - 19	40	26
20 - 24	23	15
25 - 29	10	6
30 and over	6	4
Number of years in management (n=154)		
0 - 4	28	18
5 - 9	56	36
10 - 14	39	25
15 - 19	20	13
20 - 24	5	3
25 - 29	5	3
30 and over	1	1

continued...

Table 1

(continued)

Demographic Characteristics of Respondents

Variable	Responses	%
Number of years at present managerial level (n=149)		
0 - 4	65	44
5 - 9	58	39
10 - 14	17	11
15 - 19	7	5
20 - 24	1	1
25 - 29	0	1
30 and over	1	1
Personnel supervised (n=147)		
Occupational Therapists		
0	18	12
1 - 3	47	32
4 - 6	27	18
7 - 9	15	10
10 - 14	16	11
15 - 19	7	5
20 - 29	10	7
30 and over	7	5
Non-Occupational Therapy personnel		
0	40	27
1 - 3	47	32
4 - 6	23	16
7 - 9	4	3
10 - 14	13	9
15 - 19	5	3
20 - 29	4	3
30 and over	11	8
Degrees received*		
Baccalaureate in Occupational Therapy	142	89
Certificate in Occupational Therapy	13	8
Master's in Occupational Therapy	26	16
Master's in Business Administration	8	5
Master's in Public Administration	2	1
Master's in Health Administration	9	6
Other	41	26

continued...

Table 1

(continued)

Demographic Characteristics of Respondents

Variable	Responses	%
Highest degree received* (continued)		
Baccalaureate	91	57
Master's degree	64	40
Doctorate degree	4	3

($n = 30$), 6% for public non-profit ($n = 9$), 6% in their own business ($n = 9$), and 4% for community non-profit ($n = 6$). Large cities (over 100,000) were the most frequent location of practice ($n = 74$, 50%), followed by small city (less than 100,000) ($n = 33$, 22%), suburban ($n = 19$, 13%), rural ($n = 12$, 8%), and small city in metropolitan area ($n = 11$, 7%).

The managers surveyed reported the number of years in occupational therapy practice as follows: 1 to 4 years ($n = 1$, 1%), 5 to 9 years ($n = 20$, 13%), 10 to 14 years ($n = 57$, 36%), 15 to 19 years ($n = 40$, 25%), 20 to 24 years ($n = 23$, 15%), 25 to 29 years ($n = 10$, 6%), 30 years and over ($n = 6$, 4%). No respondents reported less than one year in occupational therapy practice. Two responses were missing to this question.

The number of years that respondents had been in a management role were as follows: 0 to 4 years ($n = 28$, 18%), 5 to 9 years ($n = 56$, 36%), 10 to 14 years ($n = 39$, 25%), 15 to 19 years ($n = 20$, 13%), 20 to 24 years ($n = 5$, 3%), 25 to 29 years ($n = 5$, 3%) 30 years and over ($n = 1$, 1%). Five respondents failed to answer this question. Respondents reported being in their present managerial level for the following number of years: 0 to 4 ($n = 65$, 44%), 5 to 9 years ($n = 58$, 39%), 10 to 14 years ($n = 17$, 11%), 15 to 19 years ($n = 7$, 5%), 20 to 24 years ($n = 1$, 1%), 25 to 29 years ($n = 0$, 0%), 30 years and over ($n = 1$, 1%). Ten responses were missing to this question.

The questionnaire asked respondents to report on the number of occupational therapy and non-occupational therapy personnel supervised. Twelve percent ($n = 18$) reported supervising no other occupational therapists. Those who did reported supervising the following numbers of occupational therapy personnel: 1 to 3 ($n = 47$, 32%), 4 to 6 ($n = 27$, 18%), 7 to 9 ($n = 15$, 10%), 10 to 14 ($n = 16$, 11%), 15 to 19 ($n = 7$, 5%), 20 to 29 ($n = 10$, 7%), 30 and over ($n = 7$, 5%). Number of non-occupational therapy supervised are as follows: 0 ($n = 40$, 27%), 1 to 3 ($n = 47$, 32%), 4 to 6 ($n = 23$, 16%), 7 to 9 ($n = 4$,

3%), 10 to 14 ($n = 13$, 9%), 15 to 19 ($n = 5$, 3%), 20 to 29 ($n = 4$, 3%), 30 and over ($n = 11$, 7%). There were twelve missing responses to both sections of this question.

The managers who were surveyed reported having received the following academic degrees: Baccalaureate in Occupational Therapy ($n = 142$, 89%), Certificate in Occupational Therapy ($n = 13$, 8%), Master's in Occupational Therapy (OT) ($n = 26$, 16%), Master's in Business Administration (MBA) ($n = 8$, 5%), Master's in Public Administration (MPA) ($n = 2$, 1%), Master's in Health Administration (MHA) ($n = 9$, 6%). A total of forty one respondents (26%) also reported receiving a wide range of other degrees. A total of 91 respondents (57%) had achieved a baccalaureate as their highest level of education. 64 respondents (40%) had a masters degree, and 4 (3%) had achieved the doctorate level in their education.

Managers responding to the survey were asked to rate their intent to become managers when first entering occupational therapy on a scale of 1 (no initial intention) to 5 (strongly appealed). Fifty respondents (31%) reported that they had no initial intention to become a manager. Thirty seven managers (23%) had given some consideration to the idea. A slightly smaller number ($n = 34$, 21%) reported that the idea had strongly appealed to them. The remaining responses were equally divided between a rating of 2 and 4 on the scale. (Table 2)

On a similar scale respondents were asked to describe the transition from clinician to manager from 1 (easy) to 5 (quite difficult). Fifty three managers (33%) reported that the transition was moderately difficult and the same number ranked their experience between moderately difficult and easy. Thirty three respondents found the transition easy (21%), while 16 (10%) felt that their experience fell between moderately difficult and quite difficult. Only four managers reported that the transition was quite difficult (3%). (Table 3)

Table 2

Intent to Become a Manager

(n = 159)

No initial intent		Some consideration		Strongly appealed
1	2	3	4	5
50 (31.4%)	19 (11.9%)	37 (23.3%)	19 (11.9%)	34 (21.4%)
Mean - 2.79			SD - 1.52	

Table 3

Transition from Clinician to Manager

(n = 159)

Easy		Moderately difficult		Quite difficult
1	2	3	4	5
33 (20.8%)	53 (33.3%)	53 (33.3%)	16 (10.1%)	4 (2.5%)
Mean - 2.40			SD - 1.01	

Research Findings

The first objective of the study was to learn how occupational therapy managers assess their competence in the management skills identified in the literature as necessary for effectiveness in management. Research questions 1 and 2 were posed in order to further analyze the responses to this section of the questionnaire. Descriptive statistics were employed to answer these questions. Respondents were asked to assess their level of skill on a scale of 1 (beginning), 2 (average) or 3 (advanced) in fifty different management skills identified in the literature as critical to effective performance as a manager. Mean responses to forty of the fifty management skills fell above the score of 2.0 which suggests that respondents assessed their management skills as average or advanced in most areas. A complete table of frequencies, means, and standard deviations of all responses are reported in Appendix E.

Question 1: What are the advanced management skills identified by occupational therapy managers as areas of competence?

The management skills identified as areas of competence were defined for the purposes of this study to be those skills with the ten highest mean scores. According to the results of the survey these are listed in order from highest mean score:

1. Collaborating with other disciplines
2. Program development
3. Meeting internal performance standards
4. Developing staff as highly regarded professionals
5. Managing interdisciplinary efforts
6. Setting priority goals and plans for department operations
7. Building trust in the work place

8. Building a high performance work team
9. Meeting standards of external regulators
10. Communicating effectively with upper management

The mean values of these skills ranged from 2.69 to 2.42 on the scale of 1 to 3

(See Table 4).

Question 2: What are the advanced management skills identified by occupational therapy managers as areas of lesser skill?

The management skills identified as least skilled were defined for the purposes of this study to be those skills with the ten lowest mean scores. According to the results of the survey these are listed in order of mean score from high to low:

1. Responding to broader political/ business/ economic issues
2. Insuring customer focus in marketing services
3. Managing one's own business effectively
4. Building effective reward, career ladder, and incentive systems
5. Working more effectively with third party payers
6. Business and corporate planning for new products and services
7. Changing the corporate culture to improve viability
8. Improving productivity through technology (computers, etc.)
9. Managing through organizational transitions and mergers
10. Incorporating marketing and outcome research into practice

The mean scores of these skills ranged from 1.98 to 1.74 on the scale of 1 to 3

(Table 4).

Table 4

Management Skills

Skill	Mean	SD
Collaborating with other disciplines	2.69	.48
Program development	2.61	.50
Meeting internal performance standards	2.53	.51
Developing staff as highly regarded professionals	2.47	.60
Managing interdisciplinary efforts	2.45	.56
Setting priority goals and plans for department operations	2.45	.55
Building trust in the workplace	2.43	.56
Building a high performance work team	2.42*	.60
Meeting standards of external regulators	2.42*	.60
Communicating effectively with upper management	2.42	.57
Recruiting, hiring, and retaining staff	2.41	.61
Containing costs	2.39	.56
Making ethical management decisions	2.38	.58
Consultation skills	2.35	.67
Motivating staff for mission and strategic direction of unit/ system	2.33	.60
Making meetings productive	2.33	.58
Dealing with difficult or problematic staff	2.31	.56
Managing conflict	2.30*	.58
Increasing assertiveness as a manager	2.30*	.61
Effective documentation for reimbursement	2.30	.65
Using effective leadership approaches	2.30*	.60
Networking	2.30*	.61
Reducing internal competition between disciplines or work units	2.29	.63
Integrating business and clinical values into practice	2.28	.65
Improving time management	2.28	.56
Financial management and budgeting	2.24	.59
Giving more effective presentations or reports	2.24	.64
Improving own management and leadership styles	2.20	.51
Creating an effective performance appraisal system	2.17	.60
Strategic planning for future demands	2.15	.62

Note: Values are rounded

* Tied values

continued...

Table 4

(continued)

Management Skills

Skill	Mean	SD
Developing quality assurance systems	2.15	.67
Managing stress and burnout	2.13	.53
Dealing effectively with external competition	2.12	.62
Public relations and promotion	2.12	.68
Integrating masculine and feminine perspectives in management	2.11	.67
Using effective project management methods	2.10	.62
Developing unique OT services using OT frame of reference	2.06	.68
Responding to multicultural community needs	2.03	.69
Increasing political sophistication in the workplace	2.01	.64
Generating new revenue sources for services and programs	2.01	.68
Responding to broader political/ business/ economic issues	1.98	.67
Insuring customer focus in marketing services	1.98	.70
Managing one's own business more effectively	1.96	.67
Building effective reward, career ladder, and incentive systems	1.92	.69
Working more effectively with third party payers	1.91	.66
Business and corporate planning for new products and services	1.90	.72
Changing the corporate culture to improve viability	1.82	.67
Improving productivity through technology (computers, etc.)	1.82	.67
Managing through organizational transitions and mergers	1.80	.77
Incorporating marketing and outcome research into practice	1.74	.67

Since the second objective of the study was to explore the needs of occupational therapy managers for acquiring further training in management skills, the questionnaire asked respondents to indicate in which of the fifty management skills listed they would like to develop greater skill. Thirty seven percent of those responding would seek training in improving productivity through technology (computers, etc.). This was followed by: working more effectively with third party payers (32%), generating new revenue sources for services and programs (28%), incorporating marketing and outcome research into practice (28%), improving own management and leadership styles (28%), strategic planning for future demands (28%), building effective reward, career ladder, and incentive systems (25%), developing quality assurance systems (25%), motivating staff for mission and strategic direction of unit/ system (24%), and managing stress and burnout (23%) as the ten most desired skills. Results are listed in Table 5 ranked according to the percentage of respondents wishing further training.

The final objective of the study was to gain an understanding of variables which may affect the skills needed by managers in different settings and at different stages of their careers so that training may be offered in ways which are most beneficial to them. Research questions 3, 4, and 5 were posed to satisfy this objective.

Question 3: Do the types of skills identified by those who have been managers for more than ten years differ from those who have been managers for less than three years?

Null Hypothesis: There is no difference in the level of management skills of occupational therapy managers with less than three years experience and managers with over ten years of experience.

A one way ANOVA was performed to compare the skill levels of managers with three years or less experience with those who had been in management for ten years or

Table 5

Need for Further Development of Skills

Management skill	% of respondents wishing training
Improving productivity through technology (computers, etc.)	37
Working more effectively with third party payers	32
Generating new revenue sources for services and programs	28
Incorporating marketing and outcome research into practice	28
Improving own management and leadership styles	28
Strategic planning for future demands	28
Building effective reward, career ladder, and incentive systems	25
Developing quality assurance systems	25
Motivating staff for mission and strategic direction of unit/system	23
Managing stress and burnout	23
Responding to broader political/ business/ economic issues	23
Giving more effective presentations or reports	22
Increasing assertiveness as a manager	21
Managing one's own business more effectively	21
Changing the corporate culture to improve viability	21
Effective documentation for reimbursement	21
Developing unique OT services using OT frame of reference	21
Dealing with difficult or problematic staff	19
Building a high performance work team	19
Recruiting, hiring, and retaining staff	18
Using effective project management methods	18
Financial management and budgeting	18
Communicating effectively with upper management	18
Integrating business and clinical values into practice	16
Creating an effective performance appraisal system	16

Note: Values are rounded to nearest whole number

continued...

Table 5

(continued)

Need for Further Development of Skills

Management skill	% of respondents wishing training
Insuring customer focus in marketing services	16
Making meetings productive	16
Using effective leadership approaches	15
Managing conflict	15
Public relations and promotion	15
Developing staff as highly regarded professionals	14
Dealing effectively with external competition	13
Increasing political sophistication in the workplace	13
Business and corporate planning for new products and services	13
Program development	13
Managing through organizational transitions and mergers	12
Meeting standards of external regulators	12
Making ethical management decisions	11
Consultation skills	11
Improving time management	10
Integrating masculine and feminine perspectives in management	10
Networking	10
Reducing internal competition between disciplines or work units	10
Responding to multicultural community needs	9
Setting priority goals and plans for department operations	9
Containing costs	6
Building trust in the workplace	5
Collaborating with other disciplines	4
Meeting internal performance standards	4
Managing interdisciplinary efforts	4

Note: Values are rounded to nearest whole number

more on the basis of the factor analysis. Three different groupings were compared: those with three or fewer years of management experience, 4 to 9 years, and 10 years and over. The values comparing the groups based on years of experience in management were $p = .0012$ for factor 1, $.0212$ for factor 2, $.0224$ for factor 3, $.0224$ for factor 4, and $.0191$ for factor 5. All values are significant at the $p \leq .05$ level. Factor 1 is significant at the $p \leq .001$ level. Therefore, the null hypothesis can be rejected. Years of experience does appear to be positively correlated with level of management skill in all areas considered. The higher level of significance on factor 1 suggests that this group of skills, labeled "business/ entrepreneurial skills" is the area where length of experience is of greatest importance. The complete results are presented in Table 6.

Inspection of the data reveals that there is a greater difference between the 0 to 3 year group and the 4 to 9 year group than that between the 4 to 9 year group and the ten year and over group. This suggests that the difference in management skills may be most significant in the first three years in management, and that with over three years experience the differences become less pronounced. It should be noted that there was a large difference in the n value between managers with three years or less experience and the other two groups. This could be responsible for skewing the statistical distribution of the means and affecting the results of the ANOVA. This large variation in sample size most probably results from the use of the AOTA survey which was almost three years old at the time this study was conducted. Other groups in the larger study corrected for this sampling error.

Question 4: Do the types of skills identified by managers in different organizational structures differ?

Null Hypothesis: There is no difference in the level of management skills of occupational therapy managers working in different organizational settings.

Table 6

Analysis of Variance Between Years of Experience and Skill Level

Factor 1					
Years of Experience	n	Means	<u>SD</u>	E	p
0 - 3	12	1.6684	.3934	7.05	.0012**
4 - 9	72	1.9042	.4195		
10 +	70	2.0975	.4338		

Factor 2					
Years of Experience	n	Means	<u>SD</u>	E	p
0 - 3	12	1.9417	.5230	3.95	.0212*
4 - 9	72	2.2777	.4278		
10 +	70	2.3055	.3879		

Factor 3					
Years of Experience	n	Means	<u>SD</u>	E	p
0 - 3	12	2.1288	.3455	3.89	.0224*
4 - 9	72	2.2563	.3730		
10 +	70	2.3055	.3879		

* Significant at $p \leq .05$ ** Significant at $p \leq .01$

continued...

Table 6

(continued)

Analysis of Variance Between Years of Experience and Skill Level

Factor 4					
Years of Experience	n	Means	<u>SD</u>	E	p
0 - 3	12	2.0556	.3006	3.89	.0224*
4 - 9	72	2.2638	.3844		
10 +	70	2.3055	.3879		
Factor 5					
Years of Experience	n	Means	<u>SD</u>	E	p
0 - 3	12	1.8722	.2947	4.06	.0191*
4 - 9	72	2.0690	.4393		
10 +	70	2.3055	.3879		

* Significant at $p \leq .05$

The organizational types listed in the demographic section were grouped into for-profit, non-profit, and federal/state organizations. These types have different structures and internal demands and the study sought to uncover whether this had an impact on the types of skills developed by managers in those settings. Of the five factors only factor 5, "presentation/ marketing skills," showed a significant difference ($p = .0329$). Comparison of all other factors were not significant. (Table 7) Therefore, the null hypothesis is supported for four out of five factors, with factor 5 being the exception. The three skills comprising this factor were: public relations and promotion, giving more effective presentations or reports, and consultation skills.

Question 5: Do the types of skills identified by occupational therapy managers with advanced levels of education differ from those of managers with baccalaureate degrees only?

Null Hypothesis: There is no difference in the level of management skills of occupational therapy managers with different levels of education.

The research further sought to discover whether attainment of an advanced degree would be correlated with a significant difference in level of management skills. Comparison of those who have attained a higher level of education with those who have a baccalaureate as their highest degree reveals significant difference only on factor 1 "business/ entrepreneurial skills" ($F = 4.19, p = .04$). The null hypothesis is partially supported, except for factor 1. The skills, which did show a significant difference, include: business and corporate planning for new services and products, managing through major organizational transitions, changing the corporate culture to improve viability, incorporating marketing and outcome research into practice, responding to

Table 7

Analysis of Variance Between Organizational Type and Skill Level

Factor 1					
Organizational type	n	Means	<u>SD</u>	<u>F</u>	<u>p</u>
For-profit	41	2.0191	.4089	.42	.6567
Non-profit	77	1.9406	.4547		
Federal/ State	29	1.9662	.4538		
Factor 2					
Organizational type	n	Means	<u>SD</u>	<u>F</u>	<u>p</u>
For-profit	41	2.2398	.4048	1.54	.2177
Non-profit	77	2.3194	.4280		
Federal/ State	29	2.1628	.4433		
Factor 3					
Organizational type	n	Means	<u>SD</u>	<u>F</u>	<u>p</u>
For-profit	41	2.3244	.3625	1.41	.2479
Non-profit	77	2.3501	.3695		
Federal/ State	29	2.2150	.3874		

continued...

Table 7

(continued)

Analysis of Variance Between Organizational Type and Skill Level

Factor 4					
Organizational type	n	Means	<u>SD</u>	F	p
For-profit	41	2.3206	.3560	.21	.8092
Non-profit	77	2.2861	.3665		
Federal/ State	29	2.2663	.3560		
Factor 5					
Organizational type	n	Means	<u>SD</u>	F	p
For-profit	41	2.2309	.3318	3.50	.0329*
Non-profit	77	2.0290	.4339		
Federal/ State	29	2.1471	.4163		

* Significant at $p \leq .05$

broader political, business, and economic issues, strategic planning for future demands, dealing effectively with external competition, integrating business and clinical values into practice. The findings suggest that an advanced level of education does correlate with an increased level of skill in these areas (Table 8).

Table 8

Analysis of Variance Between Educational Level and Skill Level

Factor 1					
Educational level	<u>n</u>	Means	<u>SD</u>	<u>F</u>	<u>p</u>
Advanced degree	68	2.0487	.4610	4.19	.0424*
Baccalaureate only	89	1.9050	.4160		
Factor 2					
Educational level	<u>n</u>	Means	<u>SD</u>	<u>F</u>	<u>p</u>
Advanced degree	68	2.3019	.4474	1.09	.2986
Baccalaureate only	89	2.2309	.4022		
Factor 3					
Educational level	<u>n</u>	Means	<u>SD</u>	<u>F</u>	<u>p</u>
Advanced degree	68	2.3014	.4331	.00	.9621
Baccalaureate only	89	2.3043	.3391		

* Significant at $p \leq .05$

continued...

Table 8

(continued)

Analysis of Variance Between Educational Level and Skill Level

Factor 4					
Educational level	<u>n</u>	Means	<u>SD</u>	<u>F</u>	<u>p</u>
Advanced degree	68	2.3088	.4019		
Baccalaureate only	89	2.2662	.3310	.53	.4677
Factor 5					
Educational level	<u>n</u>	Means	<u>SD</u>	<u>F</u>	<u>p</u>
Advanced degree	68	2.1186	.3988		
Baccalaureate only	89	2.0991	.4318	.08	.7717

CHAPTER 5

DISCUSSION AND RECOMMENDATIONS

In this chapter the results will be discussed as they relate to the literature including the Model of Human Occupation. Implications for the profession are considered, and recommendations made for further research.

Discussion

The study sought to discover how occupational therapy managers assessed their competence in the management skills identified in the literature as necessary for effectiveness in management. Of the fifty skills included in the questionnaire, those which were identified as areas of competence were: collaborating with other disciplines, program development, meeting internal performance standards, developing staff as highly regarded professionals, managing interdisciplinary efforts, setting priority goals and plans for department operations, building trust in the work place, building a high performance work team, meeting standards of external regulators, and communicating effectively with upper management. It was significant to note that the skills rated as advanced by respondents all have their roots in clinical skills. From the earliest days of practice as an occupational therapist it is necessary to learn to work effectively and in collaboration with other disciplines, meet internal performance standards of the unit, set goals and plans for treatment, build trust with patients, meet the standards of external regulators, and communicate effectively with a wide variety of other people. Boyt Schell (1989) described supervision and training skills as developing from the earliest years of practice as the new therapist is called upon to give provide inservice education, supervise volunteers and Level

1 fieldwork students. With continued practice the therapist is likely to become entrusted with aspects of program development, with development of Level 2 fieldwork students and other staff, and with participation in building a high performance work team. Thus many of the skills of an effective therapist appear to translate readily to those of an effective manager.

These skills can be placed in a conceptual framework by analyzing them according to the three-skill model proposed by Katz (1974). According to this model there are three types of management skills: technical, human, and conceptual. Human skills can be further subdivided into intragroup and intergroup skills.

Six of the ten management skills rated as most advanced by respondents correspond to the category of human skills (Katz, 1974). Human skills involve use of effective interpersonal and team leadership skills and the ability to create an organizational climate which fosters trust and personal growth. Three of these may be classified as intragroup skills: developing staff as highly regarded professionals, building trust in the work place, and building a high performance work unit or team. Another three: collaborating with other disciplines, managing interdisciplinary efforts, and communicating effectively with upper management fell into the intergroup category. Boyt Schell (1989) stated that intergroup skills begin to develop in an entry level therapist as he or she begins to function as part of a multidisciplinary team. Managers continue to develop this skill through advancement to positions of middle management (i.e. Directors of Occupational Therapy or department heads), which comprised 80% of those responding to the survey. Human management skills could be expected to be most necessary to managers at this level. These managers have both the need and the opportunity to develop these skills which may account for the high rating given to them by the respondents.

Four skills which emerged as areas of competence were categorized as technical skills: program development, meeting internal performance standards, setting priority goals and plans for department operations, and meeting standards of external regulators. Technical skills are those involving the tools, techniques, or analytical abilities which pertain to the specific discipline (Katz 1974). These again are skills which are rooted in clinical competence and are developed during early stages of one's career (Boyt Schell, 1989). None of the ten highest rated skills fell into the category of conceptual skills, those which involve the ability to see the organization as a whole and the interrelationship of all its parts.

Katz (1974) stated that different management levels had proportionately different needs for each of these skills. Technical skills are most important to the lowest level of management, and many of the skills listed here are ones which begin to develop in the entry level therapist and are increased with experience and advancement to supervisory positions. Human skill is important at every level of management, especially in lower and middle management levels. Conceptual skill is vital to those in upper management and private practice. He made the point, however, that this division cannot be applied strictly to a smaller organization where the executive has greater need for all three skills.

No attempt was made in this study to correlate the management level of respondents with their level of management skills. However, the number of respondents who fell into the lower and middle management categories ($n = 134$, 84%) compared to those who are in upper level management positions such as owner, CEO, or administrator ($n = 25$, 16%) supported the idea that a greater number of respondents would be skilled in the human and technical skills which Katz describes as necessary for these levels of management.

Of the ten skills rated least developed by respondents, seven fell into the category of conceptual skills: responding to broader political/ business/economic issues, insuring

customer focus in marketing services, managing one's own business effectively, business and corporate planning for new services and products, changing the corporate culture to improve viability, managing through major organizational transitions, and incorporating marketing and outcome research into practice.

Of the remaining three skills one, building effective reward, career ladder, and incentive systems, is an intragroup skill. Two skills, working more effectively with third party payers, and improving productivity through technology are technical skills. Each of these skills has only recently assumed an importance to occupational therapy managers in response to changes in the healthcare field. The demand for increased levels of productivity, accountability, and the current shortage of practitioners in allied health are factors motivating the need for increased skill in these areas.

The results of this study indicated that occupational therapy managers assess their level of technical and human skills more highly than their level of conceptual skills. This relative rating held true for all groups which were compared, even though some significant differences did emerge between the groups.

The mean values for all groups were lowest for the skills which loaded on factor 1 (see Appendix D), which correspond to the category of conceptual skills. This factor, termed "business/ entrepreneurial skills" includes: business and corporate planning for new services and products; managing through major organizational transitions; changing the corporate culture to improve viability; incorporating marketing and outcome research into practice; responding to broader political, business, and economic issues; strategic planning for future demands; dealing effectively with external competition; and integrating business and clinical values into practice. These skills appear to have in common an expansion of operation and thinking into the larger corporate and business arena. The focus of these skills is outside the department or even the institution and into the world at large. These are

skills which are critical to successful performance in upper management and private practice.

Level of skill for this factor correlated positively with increased experience ($p < .01$) and attainment of an advanced degree ($p < .05$). Boyt Schell (1989) stated that with advancement to upper levels of management, many occupational therapists seek graduate level training. No relationship was found to exist between organizational type and level of skill in factor 1.

Managers in different organizational structures showed a significant difference in skill level only in those skills which loaded on factor 5. These consisted of public relations and promotion, giving more effective presentations or reports, and consultation skills. Each of these skills has in common the presentation of the work of the individual, group, or institution to an outside group. Factor 5 skills are termed "presentation/ marketing skills." Inspection of the data reveals the larger difference in this skill factor to lie between for-profit organizations and the other two groups, non-profit and federal/ state. The concept of marketing has traditionally been a part of a business orientation but not of a service orientation which is the basis for non-profit and federal/ state organizations. The findings suggest that changes in the health care system, which have placed even non-profit organizations in a more competitive position, have not been reflected as yet in an increased level of marketing and presentation skill of occupational therapy managers in these organizations. This suggests that organizational structure correlates with different levels of skill in presentation and marketing but not in other areas.

One objective of the study was to explore the needs of occupational therapy managers for additional training in management skills. The needs that the managers perceived were not identical to the needs identified in the literature. Data from this part of the study offered further clarification for those providing training to meet those needs. The

ten skills which the managers surveyed responded as most needing development are: improving productivity through technology; working more effectively with third party payers; generating new revenue sources for services and programs; incorporating marketing and outcome research into practice; improving own management and leadership styles; strategic planning for future demands; building effective reward, career ladder, and incentive systems; developing quality assurance systems; motivating staff for mission and strategic direction of unit/ system; and managing stress and burnout.

These findings were similar to those of the 1986 AMSIS survey. That study found that managers' greatest needs for further training were in strategic planning, productivity, marketing, and reimbursement, with program development, quality assurance, leadership approaches, and multidisciplinary management also rated highly. Although computers were listed as one of the choices on that survey, it did not rank among the highest needs. Linked with increased productivity; however, it emerged as the skill which the greatest number of managers would seek to increase.

Five of the skills which respondents rated as most advanced were among the ten skills in which they were least interested in further development. This suggests that respondents are satisfied with the level of skill which they possess in these areas and find it sufficient to meet the demands of their environment. These areas include: collaborating with other disciplines, meeting internal performance standards, managing interdisciplinary efforts, setting priority goals and plans for department operations, and building trust in the workplace. Of the remaining five, it is important to note that 19% of respondents desired further development in building a high performance work team, and 18% wished further development in the area of communicating effectively with upper management. This may indicate a high value placed on these areas, or perhaps a recognition that greater skills in these areas can continue to offer greater rewards.

Of the ten management areas rated as less skilled by respondents only four were included in the ten skills which they most wished to develop. Two were technical skills and the other was an intergroup skill. Only incorporating marketing and outcome research into practice fell into the category of conceptual skills. The remaining six lowest rated management areas did not appear as skills which respondents wished to develop. All six are conceptual skills. This suggests that occupational therapy managers do not, as yet, value or recognize the need to develop conceptual skills to become more effective managers or advance to higher levels of management.

Relationship of Findings to Occupational Therapy Theory

The Model of Human Occupation describes the occupational nature of human beings as an open system composed of three subsystems, volition, habituation, and performance, which interact with the environment. Personal causation is the subcomponent of the volitional subsystem which encompasses the beliefs and expectations regarding personal effectiveness in the environment. This, in turn, is comprised of a belief in one's personal skills and the efficacy of those skills in meeting the challenges of the environment (Kielhofner & Burke, 1985). This study sought to uncover the belief of the respondents in the efficacy of their management skills and to make inferences from the results regarding the occupational functioning of these managers.

According to the model, role performance is dependent on adequate development and performance of skills. In turn, role performance is controlled and directed by the higher level functions of the volitional subsystem, personal causation, values, and interests (Kielhofner & Burke, 1985). Roles also serve the function of directing actions into behavior which meets the needs of the various systems of which the individual is a part. Thus role performance may serve as a linkage between the individual and the environment.

The success of role performance is based on how well the skills of the individual meet his or her internalized expectations and the external demands of the environment. Internalized expectations of performance in a worker role vary due to many factors: the background and personality of the individual, his or her aspirations, perceived degree of internal or external control, identification with the job, and the demands of other life roles (Barris and Kielhofner, 1985). External demands, or environmental press, also are based on a large number of variables, such as the nature of the job and the organization, and the demands which press upon the organization from the larger culture of which it is a part. Based on the concept of open systems, each level of the environment commands and constrains the adjacent levels, as do the subsystems within the individual.

As the occupational therapy manager advances in management hierarchy, or makes changes in the organizational type or practice setting for employment, the environmental press is altered. The environmental press at the lower and middle management levels is generally for technical and human skills. The nature of occupational therapy as a service and health profession supports the development of human or interaction skills which can be developed from patient relationships to staff management skills. Human and technical skills were rated more highly by all groups of respondents to the study than conceptual skills. Thus, managers at these levels may be able to translate the skills in which they have belief into effective role performance at the lower and middle management levels.

With advancement to upper management, the environmental press shifts to the development of conceptual skills necessary to deal with the relationship of the organization to the greater culture. These do not derive as easily from skills acquired in the early years of employment. These are the skills in which respondents, overall, reported the lowest level of belief. If the individual does not find a way to acquire or develop these skills, career development may be blocked.

Those who are in management roles which require the use of skills in which the manager feels most accomplished, and which meet the environmental press of the job will have the sense of personal causation necessary for role function. If the person experiences a sense of adequacy and positive feedback from these interactions, the belief in skills is reinforced. An individual unable to reconcile his or her internalized expectations and skill performance with the demands and feedback from the environment may experience role dysfunction.

Implications for the Profession

Jaffe (1985) stated that there is a need for occupational therapists to receive the training to assume leadership roles in management. If occupational therapy is to continue as a viable profession it is important for occupational therapists to be represented at all levels of management. In addition, the growth of private practice necessitates development of a wide range of management and leadership skills for success. It is clear from this study that there are many management skills which can be developed directly from the clinical skills which therapists possess. These skills are human and technical skills. This is a basis from which to develop and promote interested and qualified therapists to management roles. Once the therapist enters the management role, however, these skills need to be expanded and broadened. One of the most effective ways to develop skills at this level is through use of a mentor, either within or outside of the organization (Boyt Schell, 1989). This is a function which experienced occupational therapy managers can be encouraged to perform for colleagues newer to management roles. With advancement to upper management or private practice, however, the need emerges for mastery of conceptual skills. The higher level of skill in this area reported in the study by those who had attained

an advanced degree, supports the need for these skills to be emphasized in graduate level education.

According to the demographic data, 44% of those surveyed have been in their present management position for four years or less. A total of 83% have been in their present position for less than ten years. This suggests that the managers surveyed continue to advance in their careers, thus requiring an ever-expanding repertoire of management skills of increasingly higher levels. The data indicated that the greatest impediment to the functioning of occupational therapy managers at the highest levels of management may be a lack of conceptual skills. Based on a comparison of the factor analysis with the ratings of management skills this may also be seen as a lack of business/ entrepreneurial skills.

The study indicated that there is a significant difference in the skill level in all areas between newer managers and those with more experience. This suggests that courses offering continued training in management and leadership skills need to be targeted differently to these groups. Those with less than three years experience, or those in the lower and middle levels of management can benefit from advanced training in those skills identified as human and technical. Those with more years of experience who are preparing to assume roles in upper management need training in conceptual skills. The data regarding the assessment of needs for further development, however, suggested that first a consensus must be built regarding the need for and value of these skills.

The findings were much less clear for differences in management skill based on organizational structure and level of education. Managers in different organizational structures differed only in their level of skill in presentation and marketing. With the current changes in healthcare, these skills can also be of value for the continued viability of occupational therapy in non-profit settings. Managers who are in for-profit settings may have a more immediate need, however, and may benefit most from development of these

skills. There appears to be no statistically significant difference in the development of other skill factors. The results of this study suggested that managers in all types of organizations have experienced a similar level of environmental press to develop the conceptual, human, and technical skills represented by the other four factors.

Level of education was significant only for differences in business/ entrepreneurial skills. As stated in the discussion, these are more conceptual skills. The implication for the profession is that encouraging and supporting the attainment of advanced degrees is vital to increasing the number of managers prepared for upper management. Boyt Schell (1989) states that "advanced management education better prepares occupational therapy managers to analyze issues in light of management theories and practices" (1989, p. 216). There is need for recognition that the technical and human skills developed as clinicians and expanded in lower and middle management roles are not sufficient for effective performance in upper management or private practice.

The uniqueness of the profession of occupational therapy may be diluted if the training of managers is left solely to other disciplines such as business or health administration. The profession should take the lead in recognizing and developing advanced level management and leadership training for its practitioners, although other disciplines offer much that can expand and supplement this training. Individuals seeking advanced degrees in more business oriented fields may miss the grounding in occupational therapy theory that is emphasized at the graduate level. Thus, a danger exists that both the uniqueness and viability of the profession could be compromised.

Recommendations for Further Research

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

1. Perform further analysis of the data to determine whether a correlation exists between management level and the factors found in the study to further investigate the relationship between them.
2. Perform further analysis of the data to explore the relative contribution of years of experience and attainment of an advanced degree in the mastery of conceptual management skills.
3. Conduct further study of occupational therapists in upper management and private practice to develop more in-depth knowledge of the skills critical to that level of practice.
4. Conduct further analysis of the data to determine if a correlation exists between the management skills and needs of managers in different practice settings (e.g. mental health settings compared to physical disability settings).
5. Compare and contrast the effectiveness of prior learning experiences to skill levels of occupational therapy managers.
6. Investigate the factors which would motivate and constrain occupational therapy managers to obtain further education and training in management and leadership skills.
7. Investigate whether the stability of the organization at the time of the study affects self-assessment of the adequacy of management skills as periods of crisis in an organization may increase the manager's awareness of the need for further development of skill areas.

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APPENDIX A
QUESTIONNAIRE

Occupational Therapy Management and Leadership Survey

You and your work setting.

1. Practice setting (*Check as many as apply*)
 - ☐ Acute care hospital
 - ☐ Outpatient facility
 - ☐ Rehabilitation hospital or unit
 - ☐ Skilled nursing facility
 - ☐ Private practice/clinic
 - ☐ Community agency
2. Type of organization (*Check one*)
 - ☐ Private for profit
 - ☐ Private non-profit
 - ☐ Public non-profit
 - ☐ Community non-profit
 - ☐ Federal/State
 - ☐ Own business
3. Areas of practice (*Check as many as apply*)
 - ☐ Physical disabilities
 - ☐ Mental health
 - ☐ Developmental
 - ☐ Gerontology
 - ☐ Pediatrics
 - ☐ School-based
 - ☐ Work-related OT
4. Locale of practice (*Check only one*)
 - ☐ Rural
 - ☐ Suburban
 - ☐ Small city (less than 100,000)
 - ☐ Small city in metropolitan area
 - ☐ Large city (over 100,000)
5. Location (State) _____
6. Size of institution
 - ☐ Number of beds (inpatient /residential)
 - ☐ Approximate case load per therapist
 - ☐ Number of clients served (outpatient)
7. Number of years (how many years for each)
 - ☐ In OT practice
 - ☐ In management
 - ☐ At present managerial level
8. Number of staff members you supervise
 - ☐ OT staff
 - ☐ Non-OT staff (specify discipline) _____
9. Degrees received (*Check all that apply*)

<ul style="list-style-type: none"> ☐ Baccalaureate in Occupational Therapy ☐ Certificate in Occupational Therapy ☐ Masters in Occupational Therapy ☐ Masters in Business Administration 	<ul style="list-style-type: none"> ☐ Masters in Public Administration ☐ Masters in Public Health ☐ Masters in Health Administration ☐ Other (specify) _____
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10. Which of the following, if any, are the stated OT frames of reference/theory for your department? (*Check all that apply if "eclectic".*)

<ul style="list-style-type: none"> ☐ Sensory Integration ☐ Model of human occupation ☐ Developmental 	<ul style="list-style-type: none"> ☐ Occupational behavior ☐ Neurodevelopmental ☐ Occupational performance ☐ Other (specify) _____
--	--
11. When you first entered OT practice, did you intend to become a manager? (circle one number)

1-----2-----3-----4-----5
 No initial intention Some consideration Strongly appealed
12. How would you describe your transition from clinician to manager? (circle one number)

1-----2-----3-----4-----5
 Easy Moderately Difficult Quite Difficult
13. Current job title _____
- I.D. Number _____ Date ____/____/____

Occupational Therapy Management and Leadership Survey

Your management skills. Please assess your skill in each area by circling the appropriate response. If you also want more development and training in an area, check the appropriate space on the right. Please star the two most important areas in which you would seek further development.

	Skills			Development
	Beginning	Average	Advanced	Seek More
1. Responding to broader political/ business/ economic issues	1	2	3	___
2. Managing through major organizational transitions (mergers, etc.)	1	2	3	___
3. Working more effectively with third party payers	1	2	3	___
4. Responding to multicultural community needs	1	2	3	___
5. Dealing effectively with external competition	1	2	3	___
6. Insuring customer focus in marketing services	1	2	3	___
7. Generating new revenue sources for services and programs	1	2	3	___
8. Program development	1	2	3	___
9. Strategic planning for future demands	1	2	3	___
10. Public relations and promotion	1	2	3	___
11. Consultation skills	1	2	3	___
12. Integrating business and clinical values into practice	1	2	3	___
13. Business and corporate planning for new services and products	1	2	3	___
14. Giving more effective presentations or reports	1	2	3	___
15. Managing one's own business more effectively	1	2	3	___
16. Developing quality assurance systems	1	2	3	___
17. Meeting standards of external regulators	1	2	3	___
18. Meeting internal performance standards	1	2	3	___
19. Containing costs	1	2	3	___
20. Building a high-performance work unit /team	1	2	3	___
21. Developing staff as highly regarded professionals	1	2	3	___
22. Dealing with difficult or problematic staff	1	2	3	___
23. Managing conflict	1	2	3	___
24. Recruiting, hiring, and retaining staff	1	2	3	___
25. Motivating staff for mission and strategic direction of unit/ system	1	2	3	___
26. Creating an effective performance appraisal system	1	2	3	___
27. Building effective reward, career ladder, and incentive systems	1	2	3	___
28. Using effective leadership approaches	1	2	3	___
29. Reducing internal competition between disciplines or work units	1	2	3	___
30. Improving time management	1	2	3	___
31. Making meetings productive	1	2	3	___
32. Improving productivity through technology (computers, etc.)	1	2	3	___

Your management skills (continued)	Skill			Development	
	Beginning	Average	Advanced	Seek	More
33. Effective documentation for reimbursement	1	2	3	___	___
34. Setting priority goals and plans for department operations	1	2	3	___	___
35. Financial management and budgeting	1	2	3	___	___
36. Increasing assertiveness as a manager	1	2	3	___	___
37. Integrating masculine and feminine perspectives in management	1	2	3	___	___
38. Developing unique OT services using OT frame of reference	1	2	3	___	___
39. Incorporating marketing and outcome research into practice	1	2	3	___	___
40. Improving own management and leadership styles	1	2	3	___	___
41. Communicating effectively with upper management	1	2	3	___	___
42. Collaborating with other disciplines	1	2	3	___	___
43. Using effective project management methods	1	2	3	___	___
44. Managing interdisciplinary efforts	1	2	3	___	___
45. Networking	1	2	3	___	___
46. Building trust in the work place	1	2	3	___	___
47. Increasing political sophistication in work place	1	2	3	___	___
48. Making ethical management decisions	1	2	3	___	___
49. Managing stress and burnout	1	2	3	___	___
50. Changing the corporate culture to improve viability	1	2	3	___	___

Be sure to star the two most important areas in which you seek further development.

Improving management skills.

1. How satisfied have you been with the learning opportunities you have previously used to acquire management and leadership skills?

	Not used	Satisfied		
		Slightly	Moderately	Very
a. On-the-job experience	0	1	2	3
b. Mentor at work	0	1	2	3
c. Books, publications, or audiotapes	0	1	2	3
d. Undergraduate business courses	0	1	2	3
e. Graduate OT courses	0	1	2	3
f. MBA courses	0	1	2	3
g. MPA courses	0	1	2	3
h. Continuing education courses	0	1	2	3
i. Networking with colleagues in other facilities	0	1	2	3
j. Professional conferences and workshops	0	1	2	3
k. On-site training inservices and workshops	0	1	2	3
l. On-site consulting	0	1	2	3

2. Of the learning opportunities listed above which two were the most critical to your development as a manager? Write in the letters in the spaces below.

___ Most critical
 ___ Second most critical

Occupational Therapy Management and Leadership Survey

3. Which of the following are the important benefits to you in developing more managerial and leadership skills? (Check all that apply, star the two most important.)
- ☐ Higher consumer/customer satisfaction
 - ☐ Meeting upper management demands
 - ☐ Career advancement
 - ☐ Increased income
 - ☐ Satisfaction from mastery of new skills
 - ☐ Thriving, smoother-running work unit or department
 - ☐ Less stress on the job
 - ☐ New career opportunities (e.g., independent contracting, private practice)
-
4. What are some of the major constraints that hold you back from developing the skills you want in leadership and management? (Check all that apply and star the two most important.)
- ☐ Unavailability of courses
 - ☐ Lack of time or energy to attend on own time
 - ☐ Conflicting commitments (e.g., family)
 - ☐ Distance
 - ☐ Schedule conflicts
 - ☐ Lack of education reimbursement program or other agency funding
 - ☐ Lack of opportunity to attend on work time
 - ☐ Lack of confidence in effectiveness of courses
 - ☐ Lack of confidence in my ability to learn or change
-
5. If they were available, which of the following formats would interest you as ways to gain more management and supervisory skills? (Check all that apply.)
- ☐ a. Specialized conferences for OT managers
 - ☐ b. Television / satellite courses for credit
 - ☐ c. Correspondence courses or other distance education for credit
 - ☐ d. Weekend courses for OT (health/ human services) managers
 - ☐ e. Videotapes on management topics
 - ☐ f. Results-oriented leadership, strategy, or operations series for work teams, spaced a few months apart, with on-site work assignments between sessions
 - ☐ g. Use of external consultants/trainers on-site at the job
 - ☐ h. Facilitated ongoing management support / study groups
 - ☐ i. Certification courses/programs for management and leadership
-
6. Of the formats listed in Question 5, which two would be your preferences. Write in the letters in the spaces below.
- ☐ First preference
 - ☐ Second preference
-
7. In what other formats would you be interested ?
-
8. What advice would you give to those who design learning events and/or materials for OT managers in the areas you have indicated?
-

APPENDIX B
COVER LETTER FOR FIRST MAILING

A campus of The California State University

School of Applied Arts and Sciences • Department of Occupational Therapy
One Washington Square • San Jose, California 95192-0059 • 408/924-3070

July 21, 1989

Dear Colleague:

We would like to ask for your time and participation in a research study to **identify your needs, as an occupational therapy manager, for more advanced management and leadership skills.**

This study, supported by the California Foundation for Occupational Therapy, asks you to respond to these general areas of inquiry:

- the **management and leadership areas** you seek to develop
- the **benefits** you hope to derive by developing them
- the **ways** in which you have sought to enhance your skills (existing learning formats) and your **degree of satisfaction** with them
- the **constraints** that hold you back from developing your skills further
- some possible **new ways** to develop the skills you desire.

Filling the questionnaire will take approximately 15 or 20 minutes of your time. Results of the survey can be used by any number of interested parties, including individual therapists, inservice coordinators, and educational institutions, to design learning events that really meet the needs of occupational therapy managers for advanced management and leadership skills so necessary in today's practice environments.

Please help us make this research represent your interests. Your participation and response will help to make this survey serve its ultimate purpose - the design of better learning events and educational opportunities to advance your management and leadership skills. Your response to the questionnaire implies your consent to participate in the study, which is, of course, voluntary. All responses are confidential. Results will be made available in a published format at some time in the near future.

Any questions or issues can be directed to Karen Diasio Serrett, Ph.D., OTR, FAOTA (408) 730-1229 or Elizabeth Gomes, OTR (408) 336-5204. Karen Diasio Serrett is principal investigator and Elizabeth Gomes is collaborator and is completing her thesis for Master of Science in Occupational Therapy at San Jose State University. Further University-based resources for your concerns are Lela Llorens, Ph.D., OTR FAOTA (Graduate Coordinator and Chair) (408) 984-3070. Questions regarding research participant's rights should be directed to Serena Stanford, Ph.D., (Associate Vice President for Graduate Studies (408) 924-2480.

Thank you for your collaboration.

Sincerely,

Karen Diasio Serrett, Ph.D., OTR, FAOTA
Professor, Department of Occupational Therapy
Principal Investigator

Elizabeth G. Gomes, OTR
Research Collaborator

APPENDIX C
COVER LETTER FOR SECOND MAILING

School of Applied Arts and Sciences • Department of Occupational Therapy
One Washington Square • San José, California 95192-0059 • Main Office: 408/924-3070 • Fieldwork Office: 408/924-3078

Dear Colleague:

A few weeks ago, we asked you to participate in a research project to *identify your needs, as an occupational therapy manager, for more advanced management and leadership skills.*

To be able to generalize from the results, we need as many respondents as possible. We hope you will take the time to respond to the questionnaire enclosed. We need your support to make this study represent your real needs and interests.

Filling the questionnaire will take approximately 15 or 20 minutes of your time.

Your participation and response will help to make this survey serve its ultimate purpose - the design of better learning events and educational opportunities to advance your management and leadership skills. Your response to the questionnaire implies your consent to participate in the study, which is, of course, voluntary. All responses are confidential.

Results of the survey can be used to design learning events that really meet the needs of occupational therapy managers for the advanced management and leadership skills so necessary in today's changing practice environments. These results will be made available in a published format at some time in the near future. If you have a keen interest in the results, contact us later for a summary prior to publication.

Any questions or issues can be directed to Karen Diasio Serrett, Ph.D., OTR, FAOTA (408) 730-1229.

Without your input, it wouldn't happen, so thanks in advance for your collaboration!

Sincerely,

Karen Diasio Serrett, Ph.D., OTR, FAOTA
Professor, Department of Occupational Therapy
Principal Investigator

Elizabeth G. Gomes, OTR
Research Collaborator

APPENDIX D
FACTOR ANALYSIS

Factor Analysis

Factor 1 - Business/ Entrepreneurial Skills

Business and corporate planning for new services and products

Managing through major organizational transitions

Changing the corporate culture to improve viability

Incorporating marketing and outcome research into practice

Responding to broader political, business, and economic issues

Strategic planning for future demands

Dealing effectively with external competition

Integrating business and clinical values into practice

Factor 2 - Team Development Skills

Dealing with difficult or problematic staff

Managing conflict

Recruiting, hiring, and retaining staff

Using effective leadership approaches

Motivating staff for mission and strategic direction of unit/ system

Developing staff as highly regarded professionals

Factor 3 - Interaction Skills

Collaborating with other disciplines

Managing interdisciplinary efforts

Networking-

Communicating effectively with upper management

Using effective project management methods

Increasing political sophistication in the work place

Factor Analysis

(continued)

Factor 4 - Operational Skills

Developing quality assurance systems

Meeting standards of external regulators

Effective documentation for reimbursement

Containing costs

Financial management and budgeting

Improving time management

Setting priority goals and plans for department operations

Factor 5 - Presentation/ Marketing Skills

Public relations and promotion

Giving more effective presentations or reports

Consultation skills

Note: Factor analysis is of the entire sample of the larger study (Diasio Serrett & Gomes, 1990)

APPENDIX E
MANAGEMENT SKILLS

Management Skills

Skill	f			$\bar{X}$	SD
	Beginning	Average	Advanced		
Responding to broader political/ business/ economic issues	37	87	34	1.98	.67
Managing through major organizational transitions (mergers etc.)	65	58	33	1.80	.77
Working more effectively with third party payers	41	84	27	1.91	.66
Responding to multicultural community needs	35	84	39	2.03	.69
Dealing effectively with external competition	21	95	40	2.12	.62
Insuring customer focus in marketing services	39	81	36	1.98	.70
Generating new revenue sources for services and programs	34	83	35	2.01	.68
Program development	1	60	99	2.61	.50
Strategic planning for future demands	20	93	44	2.15	.62
Public relations and promotion	28	82	47	2.12	.68
Consultation skills	17	68	73	2.35	.67
Integrating business and clinical values into practice	17	79	61	2.28	.65
Business and corporate planning for new products and services	48	72	33	1.90	.72
Giving more effective presentations and reports	18	85	56	2.24	.59
Managing one's own business more effectively	36	83	30	1.96	.67
Developing quality assurance systems	26	84	50	2.15	.67
Meeting standards of external regulators	9	74	76	2.42	.60
Meeting internal performance standards	1	73	84	2.53	.51
Containing costs	6	84	68	2.39	.56
Building a high-performance work unit/ team	9	74	76	2.42	.60
Developing staff as highly regarded professionals	9	67	83	2.47	.60
Dealing with difficult or problematic staff	8	93	58	2.31	.56
Managing conflict	10	90	59	2.30	.58
Recruiting, hiring, and retaining staff	10	73	74	2.41	.61
Motivating staff for mission and strategic direction of unit/ system	11	84	64	2.33	.60

Management Skills
(continued)

Skill	f			$\bar{X}$	SD
	Beginning	Average	Advanced		
Creating an effective performance appraisal system	17	97	44	2.17	.60
Building effective reward, career ladder, and incentive systems	44	81	31	1.92	.61
Using effective leadership approaches	12	87	59	2.30	.60
Reducing internal competition between disciplines or work units	15	82	60	2.29	.63
Improving time management	9	97	53	2.28	.56
Making meetings productive	9	89	61	2.33	.58
Improving productivity through technology (computers, etc.)	52	80	24	1.82	.67
Effective documentation for reimbursement	16	78	63	2.30	.65
Setting priority goals and plans for department operations	4	80	75	2.45	.55
Financial management and budgeting	13	93	51	2.24	.59
Increasing assertiveness as a manager	12	86	61	2.30	.61
Integrating masculine and feminine perspectives in management	26	82	42	2.11	.67
Developing unique OT services using OT frame of reference	31	84	41	2.06	.68
Incorporating marketing and outcome research into practice	60	74	20	1.74	.67
Improving own management and leadership styles	8	109	39	2.20	.51
Communicating effectively with upper management	6	79	71	2.42	.57
Collaborating with other disciplines	1	47	112	2.69	.48
Using effective project management methods	22	94	37	2.10	.62
Managing interdisciplinary efforts	5	77	77	2.45	.56
Networking	13	85	60	2.30	.61
Building trust in the workplace	5	81	74	2.43	.56
Increasing political sophistication in the work place	30	91	32	2.01	.64
Making ethical management decisions	8	82	69	2.38	.58
Managing stress and burnout	13	111	34	2.13	.53
Changing the corporate culture to improve viability	50	78	23	1.82	.67