

# The Development of Profession of Occupational Therapy in the United States

Anne Dickerson, PhD, OTR/L, FAOTA

**Abstract:** Occupational therapy is a fast growing dynamic profession that focuses on issues of independence and quality of life. This article described the definition, history, job, employment, use of occupation therapy as a profession. And research on occupation therapy was overviewed as well. Based on employment outlook, this article elaborates on education programs, academic curriculum and training, and licensure and certification in occupation therapy.

**Key words:** occupational therapy; profession; education

美国作业治疗职业发展 Anne Dickerson 东卡罗莱纳大学健康相关科学学院作业治疗系,美国北卡罗来纳州

[摘要] 作业治疗是一门发展非常迅速,旨在帮助人们培养独立性与提高生活质量的职业。本文概述了作业治疗的定义、发展简史、工作与就业现状,以及作业治疗的用途。本文还综述了作业治疗领域的相关研究。针对这一职业的展望,本文阐述了作业治疗的教育项目、专业培养和课程设置,以及作业治疗工作者获得执照与资格认证等一系列问题。

[关键词] 作业治疗;职业;教育

CLC Number: R49 Document code: B Article ID: 1006-9771(2008)01-0006-05

**Citation index:** Dickerson A. The development of profession of occupational therapy in United States[J]. Chin J Rehabil Theory Pract, 2007, 14(1): 6-10.

## 1 Introduction

Occupational therapy is the therapeutic use of "occupation" (work, self-care and play/leisure) to increase independent function, enhance development, and prevent disability. It may include adaptation of tasks or involve changing the environment to achieve maximum independence and enhance quality of life of any individual. Occupational therapists work with people of any age group who are affected by developmental, psychosocial, or physical problems.

There are two levels of occupational therapy practitioners. The professional occupational therapist practitioner has an undergraduate or graduate degree and performs evaluation, treatment planning and implementation, and documentation within the framework of an identified theory or model of practice. The occupational therapy assistant (OTA) is usually a two-year degree from a community college or technical school. The OTA is educated in occupational therapy theory, evaluation, treatment implementation, and documentation. However, the emphasis is clearly on therapy intervention as the OTA typically works under the direction of a professional level occupational therapist. The professional occupational therapist most frequently uses the designation of OTR for Occupational Therapists, Registered. This designation indicates the practitioner has taken the national

certification exam and has maintained national certification.

## 2 History

Occupational therapy has a rich history that continues to influence its development. The inception of the profession is credited to March 17, 1917 when a group of individuals gathered to found the National Society for the Promotion of Occupational Therapy, which later evolved into the American Occupational Therapy Association<sup>[1]</sup>. These founders of occupational therapy were drawn together in the strong belief of the therapeutic value of occupation. It was a humanistic philosophy based on the idea of "moral treatment" of those individuals with mental illness. The founders all shared the belief that meaningful engagement in occupation, broadly defined to include habit training, handicrafts, physical activity, etc., was the key to creating a healthy mind and body<sup>[1]</sup>.

The world wars and rehabilitation movement of the 1950s fostered the development of the profession and by the 1960s there were two specialty areas, physical disabilities and psychosocial dysfunction. Advancement in the medical fields and increasing need to show the scientific basis of intervention created pressure on practitioners to narrow their focus on medical science and specialty areas. At the same time, the passage of legislation ensured the education of children with disabilities and thus, pediatrics emerged as another specialty area. Although the increase in the scientific knowledge greatly enhanced the profession, the medical model of the profession during the 1960s and 1970s brought the profession into conflict with some

Correspondence: Department of Occupational Therapy, School of Allied Health Sciences, East Carolina University. Author: Anne Dickerson, Professor and Chair.

of the founding ideals<sup>[1]</sup>.

A major leader of the field, Mary Reilly as well as others, became deeply concerned about the gap between specialization and these founding ideals. She worked to bridge this gap and promote the practice occupational therapy as an art and a science<sup>[1]</sup>. Reilly (1962) wrote extensively and introduced the concepts of occupational behavior<sup>[2]</sup>. Later, others expanded on this philosophy, developed strong models of practice, and developed occupational science as the academic discipline of occupational therapy. During this period, research in the field dramatically increased and continues to increase exponentially.

There were 20 programs in 1945 with 3224 practicing occupational therapists<sup>[3]</sup>. Now there are over 279 programs with an enrollment of 15776 students in the all occupational therapy programs in the United States (ACOTE, September 2006). The majority of the enrollment is at the professional level of occupational therapy with 10861 enrolled at colleges and universities in United States. As of 2007, only programs that graduate students at the master's degree level are accredited or maintain accreditation by the American Council on Occupational Therapy Education (ACOTE). Accreditation is critically important to any program, as only graduates of accredited programs can take the certification exam, which is typically needed to gain an occupational therapy license to practice in almost every state. ACOTE is the organization responsible for the establishment and evaluations of standards of excellence in occupational therapy education. ACOTE develops and monitors the implementation of *Standards for Occupational Therapy Accredited Programs* and *Standards for Occupational Therapy Assistant Programs* through an accreditation process. Currently, ACOTE has developed Doctoral Standards that will be effective on January 1, 2008.

### 3 Job Description

Occupational therapy is skilled intervention that helps individuals achieve independence in their lives. Occupational therapy assists people in developing the "skills for the job of living" necessary for independent and satisfying lives<sup>[4]</sup>. Services typically include: ① Customized treatment programs to improve an individual's ability to perform tasks of daily living; ② Comprehensive home and job site evaluations with recommendations for adaptation; ③ Performance skills assessments and treatment; ④ Adaptive equipment recommendations and training; ⑤ Counseling to family members and caregivers<sup>[4]</sup>.

The field of occupational therapy is very diverse. Professional occupational therapists work with individuals of any age who are affected by developmental problems, psychosocial issues, physical problems, the aging process, poverty or cultural differences. They perform evaluations, plan treatment or intervention strategies, implement the strategies using occupation, and evaluate outcomes. Work settings include hospitals, rehabilitation centers, home health, schools systems, long term

nursing care facilities, industries, private practice, prisons, mental health and community centers. Occupational therapists can work in one area like pediatrics (working in a school) for several years and then change to a completely different area like home health or rehabilitation and not need to change licenses or go back to school.

In addition to the traditional practice settings mentioned above, there are emerging areas of practice that expand the domain of practice and have potential to drive up the demand for occupational therapists. These areas include: driving evaluation, rehabilitation, and training; addressing the psychosocial needs of children and youth (violence); design and accessibility consulting and home modification; ergonomics consulting, health and wellness consulting; low vision services; private practice community health services; and technology and assistive device development and consulting.

### 4 Employment Characteristics

As with any health professional, occupational therapy practitioners must be ethical and competent. As an individual who will work closely with clients with any number of physical, developmental, psychosocial, or aging conditions, it is critical to be assured the individuals physical and mental needs are met by a responsible practitioner who will do their best by his or her client. Other essential skills needed include counseling skills, critical comprehension and analysis abilities, proficient verbal and writing abilities, and organizational skills. Personal qualities or strengths that occupational therapists typically possess include: creativity, caring or nurturing personality, initiative, teamwork, and leadership. Critically important are the creativity and problem solving skills needed to determine how to adapt the environment to meet a client's needs or how to structure a treatment so that the client achieves success in his or her goals. They must be able to develop solutions to difficult situations understanding that there are not always right or wrong answers. An occupational therapy practitioner should have good interpersonal skills and enjoy working with individuals from diverse backgrounds. The basic knowledge and skills can be learned in the occupational therapy educational program, but the practitioner must be able to take this information and apply it to the unique areas of practice that comprise occupational therapy.

There are many settings that an occupational therapist can choose to work in and then change over time. Occupational therapy presents an opportunity to work in traditional settings such as hospitals, schools and rehabilitation settings, but also provides opportunities to work in private practice, industry, wellness centers, and other community settings. Because it is a profession that has been underutilized, there are still many areas of practice that have yet to be explored and has many open doors to contribute knowledge for the betterment of society.

An individual interested in this profession should have some hobbies, activities, or interests for which he or she has a

passion. In most curriculums, the student will study the concept of "occupation" which can be equated with activities, work, hobbies, or tasks of daily living. Unless the students have their own unique "occupations" (activities or interests), they will have difficulty understanding and applying that knowledge to others.

**4.1 How People Can Benefit from Occupational Therapists** Every day, children and adults have or develop health conditions that significantly affect their ability to manage their daily lives. With the help of an occupational therapist, many individuals can achieve or regain a higher level of independence. However, when the skill, knowledge, and/or strength cannot be developed or improved, occupational therapy offers creative solutions and alternatives for adapting the environment so that daily activities can be fulfilled<sup>[4]</sup>. Some of the health conditions that benefit from occupational therapy include: ① Work-related injuries including lower back problems or repetitive stress injuries; ② Limitations following a stroke or heart attack; ③ Arthritis, multiple sclerosis, or other serious chronic conditions; ④ Birth injuries, learning problems, or developmental disabilities; ⑤ Mental health or behavioral problems including Alzheimer's disease, schizophrenia, and post-traumatic stress; ⑥ Problems with substance use or eating disorders; ⑦ Burns, spinal cord injuries, or amputations; ⑧ Broken bones or other injuries from falls, sports injuries, or accidents; ⑨ Vision or cognitive problems that threaten the ability to drive<sup>[4]</sup>.

**4.2 Evidence Based Practice** In their practice, occupational therapists make decisions to determine how to best address their clients' needs. Decisions are formed using information from the client, experiences with previous clients, research findings, and expert opinion from a variety of sources. Using evidence-based practice is seen as critical since consumers, payers, and practitioners want services based on the best available evidence regarding their effectiveness. Evidence-based practice is a major element of what is now described as best practice and involves the integration of high quality scientific evidence with clinical experience and the client perspective<sup>[4]</sup>.

## 5 Research

With the demand of evidence based practice and more doctoral programs, research in occupational therapy has grown significantly. As many areas of practice in occupational therapy, there are research agendas. Research in pediatrics, physical disabilities, mental health, models of practice, and theoretical models are widespread and diverse. A few are described in the following paragraphs.

Occupational science is concerned with understanding humans as occupational beings and the relationship between occupation and health. Researchers in this area, explore what constitutes a healthy balance of work, rest, and leisure<sup>[5]</sup>. Research in occupational science hopes to gain a better understanding of human occupation, which has the potential to contribute

to various professional and academic fields (e.g. social sciences, health sciences, business and administration), and ultimately to help build healthier, more equitable, more prosperous communities<sup>[6]</sup>. Typical research within this domain tends to be qualitative in nature and explores occupation as a foundation of the profession.

Sensory integration is a theory of brain-behavior relationships<sup>[7]</sup>. It refers to the integration and interpretation of sensory stimulation from the environment by the brain. Sensory integrative dysfunction is a disorder in which sensory input is not integrated or organized appropriately and may produce varying degrees of problems in development, information processing, and behavior. A general theory of sensory integration and treatment has been developed by Dr. A. Jean Ayres and research in many aspects of sensory integration occurs in many parts of the United States.

Motor learning and motor control, cognitive-perceptual models, cognitive disabilities, biomechanical, the Canadian model of human performance, and the model of human occupation<sup>[8]</sup> are all models of practice that are currently being used and researched to varying degrees. Both quantitative and qualitative research frameworks are used for both basic and applied research.

Occupational therapists also collaborate with other professionals in seeking research outcomes and evidence based practice. Examples include occupational therapists working with physical therapists and speech therapists in early intervention programs with infants and young children. Occupational therapists using motion analysis may work with a physician and physical therapist to study how stroke affects the motion in the arm and hand while performing tasks of daily living. Occupational therapists may work with vocational counselors to determine what work skills a schizophrenic may need to learn to work in a sheltered workshop. In our setting, researchers are working with gerontologists to develop a screening tool that can be easily used to identify older adults who may need evaluation to determine their risk of failing to safely be able to operate a motor vehicle. There is no question that the amount of research is increasing, but there are many more questions to answer than there are occupational therapists with the research skills, knowledge, and resources available to meet the need of consumers and/or the public.

## 6 Employment Outlook

Demand for occupational therapists is strong. The United States Department of Labor Bureau Statistics (BLS) has projected employment of occupational therapists to increase between 21 % and 35 % between 2000 and 2010. The BLS's data for 2002 indicates a median income of \$ 51990 for an occupational therapist and \$ 36660 for an assistant<sup>[4]</sup>. It also reports that between 2004 and 2014, 7 of the 10 fastest-growing jobs in the U.S. will be in health care of the top 30 fastest-growing jobs, 17 are

health care-related. *Forbes* indicates that occupational therapists and occupational therapy assistants are both in the top 20 fastest growing job markets<sup>[9]</sup>.

## 7 Educational Programs

There are 3 levels of occupational therapy education for entry-level practice. The occupational therapy assistant (OTA) as mentioned is usually a two-year degree from a community college or technical college. Presently there are 130 accredited OTA programs in the United States. The most common level of occupational therapy education is the professional level therapist. In the United States, there are presently 149 accredited programs. Although at this time, there are more occupational therapists with undergraduate degrees in practice, only occupational therapists with master's degree are eligible to take the certification exam. Eventually all therapists in practice will have master's degrees.

The third level of education is the Occupational Therapy Doctorate. This is a clinical degree that can be either entry-level or post professional. The entry-level master's degree program's professional content will be similar, but the doctoral program will place greater emphasis on management, theory, research, and clinical thinking. Additional clinical experience may be required by any of the individual programs. As of 2006, there are 5 programs that have an entry-level doctoral occupational therapy program.

In addition to these 3 entries to the practice, occupational therapy programs across the country have post-professional programs that grant master's degrees of science, doctorate of philosophy, doctorate of science degrees, etc. Many times there are interdisciplinary programs with other allied health professions.

## 8 Academic Curriculum and Training

The curriculum of entry-level professional programs generally consist of 3 types of course work: ①lecture courses where the knowledge and skills of the profession of occupational therapy is presented; ②laboratory courses where the knowledge and skills are practiced, demonstrated, and analyzed, and ③fieldwork training in which students are placed in clinical settings where occupational therapists are employed or could be employed. In the fieldwork settings, students undertake the professional role under various levels of supervision. The fieldwork training is the most demanding because all the learned material needs to be integrated into daily practice. However, students typically enjoy fieldwork immensely. Throughout the program, fieldwork enhances the students' perception of the profession and facilitates their enthusiasm to complete the program.

Typical occupational therapy curriculums are full time with 10~18 credits per semester for 2~3 years. The subject matter is intense and compactly presented so students can expect to have a vigorous course schedule unlike typical undergraduate majors and other graduate majors. The challenge for most

students is the intensity of a full time program while trying to juggle other life issues. Typical course titles might include: Foundations of Occupational Therapy, Occupational Therapy Theories, Functional Anatomy and Physiology, Human Growth and Development, Kinesiology, Neuroscience, Medical Conditions, Group Process, Therapeutic Use of Self, Occupational Therapy Interventions, Clinical Reasoning, Leadership and Management, Research, and Fieldwork.

Since all programs are now at the master's level, students have undergraduate degrees in various disciplines. The most common include: occupational science, psychology, biology, recreational therapy, rehabilitation studies, child development, sociology, and other associated health careers. Typical undergraduate courses that are taken as prerequisites for occupational therapy programs include: anthropology, sociology, biology, anatomy, physiology, medical terminology, development (life-span) psychology, abnormal psychology, statistics, and/or physics.

All occupational therapy programs adhere to the same accreditation standards. However, how each program enacts those standards varies widely. The differences tend to be in the philosophies of how the program interprets "occupation". Some programs will reinforce the underlying philosophy of occupation while others will emphasize a more clinical or practical approach with more "hands on" client contact. Some programs emphasize only one theoretical model which has an advantage of being well integrated throughout the program. On the other hand, most programs choose to teach several theoretical approaches so students can select their own perspective upon completion of the program. As mentioned, some entry-level programs are at the master's degree level and others are at the entry-level doctoral level. The doctoral entry-level programs will likely provide the graduate with expert clinician skills. Generally the master's degree programs prepare graduates as an entry-level general practitioner. However, some master's degree programs emphasize research and will prepare the student to be good research consumers, prepare for an academic position, or assist in adding to the knowledge base of occupational therapy. Typical concentration areas for master's degree programs might be: occupational science, psychosocial dysfunction, physical disabilities, pediatrics, assistive technology, leadership, clinical reasoning, and/or research.

## 9 Licensure and Certification

All occupational therapists wanting to practice in the United States, must pass an initial certification examination given by the National Board for Certification in Occupational Therapy (NBCOT), Inc. This exam is computer based and taken "on-demand". Specifically, as soon as the candidate has officially completed the accredited occupational therapy program, he or she applies to take the exam from NBCOT. They candidate must show proof of completing the program and pay a fee to sit

for the exam. Results are typically ready within two weeks. If the candidate fails the exam, he or she can retake the exam, but must wait three months before taking a repeat exam. Once the candidate passes the exam, he or she typically finishes their application for licensure in the state of their job.

At this point in time, all states have state licensure for occupational therapists that uses the certification examination as its basis of granting a license to an applicant. Some states have additional criteria for licensure. It the candidate's responsibility to complete the application processes to get state licensure and national certification.

## 10 Summary

Occupational therapy is a fast growing dynamic profession that focuses on issues of independence and quality of life. Occupational therapists are highly educated practitioners who use their creative skills and knowledge to increase independent function, enhance development, and prevent disability. They work within traditional settings like hospitals, schools, and long term care facilities, but also have emerged in areas such as driving evaluation, home modification, low vision management, and in industry. With the emphasis on evidence based practice, occupational therapy is grounded in the academic discipline of occupational science and is moving towards enhancing its knowledge base with increasing numbers of research studies.

## References

- [1] Schwartz KB. The history of occupational therapy[ M]. // Crepeau EB, Cohen ES, Schell BB. Willard and Spackman's Occupational Therapy. 10th ed. Philadelphia: Lippincott, Williams, and Wilkins, 2003.
- [2] Reilly M. Occupational therapy can be one of the great ideas of the twentieth century[ Eleanor Clark Slagle Lecture][ J]. Am J Occupational Thera, 1962, 16: 1 - 9.
- [3] Arestad FH, Westmoreland MG. Hospital service in the United States[ J]. J Am Med Associ, 1946, 130, 1085.
- [4] American Occupational Therapy Association. Consumer Information: What is occupational therapy[ OL]. (2007). <http://www.aota.org/featured/area6/index.asp>.
- [5] University of Southern California. Occupational science[ OL]. (2007). <http://www.usc.edu/schools/ihp/ot/os/>.
- [6] Australian Occupational Therapy Science Centre. University of Wollongong[ OL]. (2007). <http://shoalhaven.uow.edu.au/aosc/whatisocsci.html>.
- [7] Fisher A, Murray E, Bundy A. Sensory Integration: Theory and Practice[ M]. Philadelphia: F.A. Davis Company, 1991.
- [8] Kiehlhofner G. Conceptual Foundations of Occupational Therapy[ M]. Philadelphia: F.A. Davis Company, 2004.
- [9] Clark, H. The fastest growing jobs in the United States[ N/ OL]. (2007-03-12). <http://www.msnbc.msn.com/id/17540959>.

## Resources

American Occupational Therapy Association ( AOTA)

4720 Montgomery Lane  
PO Box 31220  
Bethesda, MD 20824-1220  
Phone: 301-652-2682  
TDD 1-800-377-8555  
Fax: 301-652-7711  
[www.aota.org](http://www.aota.org)

Accreditation Council for Occupational Therapy Education

4720 Montgomery Lane  
PO Box 31220  
Bethesda, MD 20824-1220  
Phone: 301-652-2682  
Fax: 301-652-7711  
[www.aota.org](http://www.aota.org)

National Board for Certification in Occupational Therapy ( NBCOT)

800 S. Frederick Avenue  
Suite 200  
Gaithersburg, MD 20877-4150  
Phone: 301-990-7979  
[www.nbcot.org](http://www.nbcot.org)

World Federation of Occupational Therapists ( WFOT)

PO Box 30 Forrestfield  
Western Australia  
Australia 6058  
Phone: 61 8 9453 9746  
[www.wfot.org.au](http://www.wfot.org.au)

( Received Date :2007-08-31 )