## AN OCCUPATIONAL THERAPY CURRICULUM STUDY

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## AN OCCUPATIONAL THERAPY CURRICULUM STUDY

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#### CHAPTER I

#### INTRODUCTION

Occupational therapy is a relatively new field of endeavor, but its principles have been practiced for centuries. William Rush Dunton, Junior, places its origin in the Garden of Eden "when the Lord sent Adam forth to till the ground . . . that Adam might recover from a depression caused by the change from easy life."

Although it was not until 1917 that the term "occupational therapy" began to come into general use, 2 the first school to offer courses to craft teachers who worked with mental patients was the Chicago School of Civics and Philanthropy in 1908. After the American Medical Association set up standards for acceptable schools of occupational therapy in 1935, it began accepting such schools in 1938.4

In 1938 there were only four schools offering occupational therapy training; another was added in 1939. At the

William R. Dunton and Sidney Licht, <u>Occupational Therapy: Principles and Practices</u> (Springfield, Illinois, 1950), p. 3.

<sup>&</sup>lt;sup>2</sup>Helen S. Willard and Clare S. Spackman, <u>Principles of Occupational Therapy</u> (Philadelphia, 1947), p. 6.

<sup>3</sup>American Occupational Therapy Association, "History of Occupational Therapy," Occupational Therapy and Rehabilitation, IX (February, 1940), 28.

<sup>4</sup>Ibid.

close of World War II in 1945, there were twenty-one colleges and universities offering such courses, eighteen of which had been approved by the American Medical Association. The demand for therapists was so great that the Surgeon General's Office had inaugurated emergency courses, making it difficult for the American Medical Association to keep up with the rapid growth of occupational therapy. Today there are twenty-seven accredited colleges and universities offering training in occupational therapy. Over a span of fifteen years these institutions have taken the opportunity of offering courses in occupational therapy to help meet this great demand.

## Significance of the Study

The demand for occupational therapy has never been fully supplied. Under the proposed legislative program of the President of the United States, the Office of Vocational Rehabilitation will need 8,000 occupational therapists by the beginning of 1960. To produce this number in itself, much less superimposed on the present demand for therapists, is an impossibility as far as the present number of schools is concerned. To accomplish this needed expansion, a fuller understanding of the already-established curricula is necessary, so that this growing demand for occupational therapists

<sup>5</sup>willard and Spackman, p. 8.

<sup>6</sup>Trudy Druker, "Rehabilitation Personnel Needs Growing; Shortage Acute," Comeback, VI (June, 1954), 11.

can be met by expanding the number of colleges and universities offering occupational therapy.

#### Statement of the Problem

In order to provide an understanding of the curricula of the colleges and universities active in the training of occupational therapists and to assist in gaining knowledge from their experience, this study attempts to analyze the training program of all these schools. The available information, as well as a resulting "connecting thread" in these different curricula, will aid any college or university that wishes to accept the challenge of the aforementioned demand in establishing an outstanding department of occupational therapy.

It is assumed that a digest of the present curricula, an understanding of the distribution of these schools now existing, and a summary showing a suggested curriculum would be beneficial to any college or university wishing to add such a department.

#### Delimitations

This study will deal only with the colleges and universities that offer a bachelor's degree with a major in occupational therapy. Of the twenty-seven colleges and universities listed by the American Occupational Therapy Association, tion as being accredited by the American Medical Association,

there are twenty-five institutions offering such degrees. This will eliminate only the University of Texas, which has no students enrolled in occupational therapy courses at the time of this study, and Fort Sam Houston, which accepts students only after they have completed most of their study in colleges or universities. Because of the types of courses offered, such as Advanced Standing Certificate Course, graduate courses, and others, this study will consider only the curriculum that leads to a degree, attempting to omit such courses as are normally required by the school for any other major, such as English, a year of science, a certain number of courses in liberal arts, and others.

#### Definition of Terms

The terms listed below will be used in this study and are defined as follows:

Occupational therapy. -- The science or art of supervised and graded activities to assist in the recovery or rehabilitation of an individual, to the fullest extent possible, from an injury or disease.

Clinical training. -- The area of training devoted to student practice in hospital situations in the fields of pediatrics, tuberculosis, physical disabilities, psychiatry, and general medicine and surgery.

<sup>7</sup>American Occupational Therapy Association, "Schools Offering Courses in Occupational Therapy," American Journal of Occupational Therapy, VIII (May-June, 1954), 133.

American Occupational Therapy Association .-- The official national organization of occupational therapists, approved by the American Medical Association.

American Medical Association. -- The nationally recognized organization of doctors of medicine.

#### Recent Studies

The only study that was located concerning the curriculum for a department of occupational therapy was made by Mount Mary College in 1940. In an attempt to get a cross-section of the opinion of all therapists doing actual work in the field, a questionnaire including ten questions was sent to each of the therapists. The College received approximately fifty careful answers on which it based its curriculum.8

Because the field of occupational therapy is relatively new, there has been very little research made. This is especially true concerning the training of occupational therapists. It can be said that any recognized work dealing with occupational therapy or its allied fields will be published in the American Journal of Occupational Therapy or will be on file for study in the headquarters of the American Occupational Therapy Association in New York City.

SEdward A. Fitzpatrick, "The Mount Mary Questionnaire on Occupational Therapy," Occupational Therapy and Rehabilitation, XXI (August, 1942), 195.

In answer to an inquiry concerning this matter, Mary Frances Heerman, Educational Secretary of the Association, said:

We are very pleased to hear of your interest in a study of the curriculum for occupational therapy. . . . To our knowledge there has been only one or two studies on this subject. . . . We will be pleased if you keep us up to date on your work in regards to the curriculum. This is a very worthwhile subject and we hope that you have the best of luck with it.

#### Sources of Data

Data for this study were obtained from catalogues of the twenty-five colleges and universities; from the American Journal of Occupational Therapy, the official organ of the American Occupational Therapy Association since 1947; from Occupational Therapy and Rehabilitation, the official organ of the American Occupational Therapy Association prior to 1947; from information gathered from the American Occupational Therapy Association; from books dealing with occupational Therapy and curriculum; and from any other pertinent material that might lend itself in clarifying the desired development of this study. Exact sources of data are listed in the footnotes and in the bibliography.

## Need for the Study

As indicated above, the demand for well-trained occupational therapists really started during the latter part of

<sup>9</sup>Letter from Mary Frances Heerman, Educational Secretary, American Occupational Therapy Association, June 4, 1954.

World War I and continued to grow to the beginning of World War II. It was during the early part of the 1940's that eccupational therapy received an everwhelming call. The need was so great that the Surgeon General of the Army asked the colleges and universities of the nation to assist in relieving this great shortage. Since the close of World War II, the demand for occupational therapists has remained great and continues to grow, but this demand has shifted from the military to the civilian hospitals.

Because occupational therapy is such a new field and its value has been unquestionably recognized by both the civilian and the military hospitals, the demand is not likely to cease within the next decade or so. The aims of this work are more or less definite and will probably solidify under the careful supervision of qualified individuals. If colleges and universities do not produce the desired number of therapists to help in maintaining stability, then the hospitals will be forced to turn to groups less qualified to handle their needs.

Value of Occupational Therapy As Treatment

In an effort to clarify briefly the value of an occupational therapy program, the following is offered. It is the purpose of occupational therapy to fulfill one or a combination of three aims in treatment, namely (1) elimination of mental self-destruction, (2) sedation, and (3) exercise.

In the case of the first-mentioned aim, a person who is busy with some project that is not only interesting, but will have some useful purpose, is less likely to turn his mind to self-evaluation which may result in self-deterioration. "A mind turned upon itself to the exclusion of all other outside interests is a mind just about lost. Only desirable occupations can and do prevent the mind from taking the dangerous road to self-destruction." The best way to prevent this type of mental waste, such as those cases found chiefly in mental institutions, is to guide these drives into constructive and acceptable channels.

Sedation, as has been mentioned secondly, is used mainly with patients with dangerous heart conditions or with tuberculosis. This practice is also found as a method of treatment in psychiatric hospitals. Here rest is all important. Supervised activity is so selected as to release energy carefully and yet to induce relaxation. R. D. Gillespie is quoted as saying: "When the drives of talent and interest are fulfilled, a state of satisfaction and consequent relaxation results."

In considering the final value mentioned, that of exercise, attention is focused on the recent history of the

<sup>10</sup>A. K. Rigast, "Inherent Therapeutic Values in Industrial Arts," Industrial Arts and Vocational Education, XXVI (May-September, 1947), 201.

<sup>11</sup>R. D. Gillespie, <u>Psychological</u> <u>Effects of War on Citizens and Soldiers</u> (New York, 1942), p. 87.

development of occupational therapy. Formerly, if a patient were unable to manipulate an injured extremity after what was believed to be maximum physical repair had taken place, his case was considered hopeless. Now, the modern physician prescribes occupational therapy, as well as other ancillary medical aids, to help the patient to return to his vocation or to adopt a suitable one. Thus occupational therapy prevents a patient from becoming a chronic invalid.

To sum up the value of occupational therapy in general, it cannot be better described than by the statement made by one person who has had some experience with occupational therapy: "The results of occupational therapy cannot be measured or justified in dollars and cents or by graphs and charts, but in mending broken souls, in creating in the handicapped a feeling of still 'belonging'--of being a contribution to life." 12

Value of Occupational Therapy As a Profession

Walter E. Burton, of the United States Medical Corps, has
said that the great demand for occupational therapists itself
could destroy the field, for it is such a genuine need. 13

Joseph Gardner, supervisor of Warren State Hospital, Warren.

<sup>12</sup>M. Henry, "Help Wanted," Hygeia, XVII (October, 1940), 873.

<sup>13</sup>walter E. Branton, "The Challenge to Occupational Therapy," Occupational Therapy and Rehabilitation, XXII (December, 1943). 262.

Pennsylvania, has said that occupational therapy "...has made its mark and earned its place as a partner in the healing arts. Yet occupational therapy has not really begun to reach the maximum of its potential contribution."14

In a discussion of the future of occupational therapy Grace Herman stated as follows:

The future of occupational therapy may well be viewed as a program which will be wider in scope and more intensive rather than one that will present radical changes. It is not too much to say that the value of the work is conceded and the way in general is charted. 15

These three authorities in the field of occupational therapy have therefore laid down three distinct observations that appear to be a challenge to schools to institute programs of occupational therapy. These three points are:

(1) if the demands for occupational therapists are not met, the very existence of the field will likely be endangered;

(2) the field has yet to meet its top performance in the medical field; and (3) the value has been accepted and there is a future for the endeavor. With a field embodying such a set of strong characteristics as mentioned above, the remaining argument should be devoted to the exact demand according to up-to-date statistics.

<sup>14</sup> Joseph Gardner, "A New Horizon for Occupational Therapy," Occupational Therapy and Rehabilitation, XXIII (April, 1944), 36.

<sup>15</sup>Grace Herman, "The Future of Occupational Therapy,"
Occupational Therapy and Rehabilitation, IX (April, 1940), 129.

Today's Demand for Occupational Therapy

In a statement released to the newspapers on June 28, 1954, Marjorie Fish, Executive Director of the American Occupational Therapy Association, said: "3,000 more occupational therapists are needed immediately and an additional 6,000 in the next five years." 16

Joseph Hunt, Assistant Director of the Office of Vocational Rehabilitation, Department of Health, Education and Welfare, told a meeting of the Texas Occupational Therapy Association on May 30, 1954, that "... by 1960 the Vocational Rehabilitation Service will need 8,000 qualified occupational therapists to help carry on its programs proposed by President Eisenhower."

These well-informed people have, therefore, estimated that by 1960 there should be 17,000 more occupational therapists in the field than there are at present. This number will not be met, because it would require the present number of colleges and universities to turn out an average of 2,833 registered occupational therapists each year for the next six years.

At the mid-year meeting of the American Occupational Therapy Association's Sub-committee on Schools and Curriculum

<sup>16</sup>Statement by Marjorie Fish, news release, June 28, 1954.

<sup>17</sup>Joseph Hunt, After dinner speech to Texas Occupational Therapy Association, May 30, 1954, Fort Worth, Texas.

at Indianapolis, Indiana, on March 27, 1954, it was announced that there are "... 527 students, of whom ninety-five are male students, completing requirements for writing the registration examination in 1954." This number is 58 more students than the 1952 figure of 469, which was considered as a record. 18

If this number of qualified students all pass the examination and the colleges and universities have as large a number qualified each year for the next six years, then the increase will be only 3,216, which will fall short almost 14,000 occupational therapists of the number that Marjorie Fish and Joseph Hunt see the need for by 1960.

The answer to the problem of making up the additional 14,000 occupational therapists would seem to be to set up recruitment and to increase the number of colleges and universities offering occupational therapy as a major. In the area of recruitment the National Foundation for Infantile Paralysis granted to the American Occupational Therapy Association on July 1, 1954, the sum of \$19,500. to assist them in attracting more young men and women to occupational therapy as a profession. Each state organization of the American Occupational Therapy Association has a recruitment chairman, active in the publicity of this profession since 1945. Many national

<sup>18</sup> Marjorie Fish, "Report of Chairman of Standing Committees," American Journal of Occupational Therapy, IX (January-February, 1955), 32.

Organizations, such as the National Society for Crippled Children and Adults, and others, have offered scholarships to deserving individuals to assist in attracting needed personnel. The number of qualified occupational therapists, however, has shown only an appreciable increase, according to the addition of new colleges and universities offering occupational therapy as a major.

Even if this extra financial assistance from these national organizations were to increase the enrollment of the colleges and universities so that the additional 14,000 therapists could be supplied, the schools would need to expand their facilities to accommodate approximately four times their present number of students. This is a demand, therefore, for the expansion of the number of colleges and universities that are willing to accept this challenge of training students for occupational therapy. The future of occupational therapy rests with the colleges and universities in answering the needs of this virgin field. The past has seen rapid growth and sound work; the future presents both a promise and a challenge.

# Organization of the Study

Chapter I is an introduction to the study. In this chapter an attempt is made to clarify the subject under consideration. It covers not only the statement of the problem with its purposes and delimitations, but also gives sources

of data, definitions of terms, recent studies in this field, and the need for occupational therapy, therefore, a need for the training of qualified personnel.

Chapter II is an historical sketch of occupational therapy, so that the development of this field may be fully understood and appreciated. The history of occupational therapy will show the rise of the present demand for people in this field.

A geographical sketch of the present colleges and universities that deal with the training of occupational therapists is given in Chapter III. Included in this chapter is a brief consideration of the association of the occupational therapy department with these colleges and universities.

A breakdown of the curriculum offered is presented in Chapter IV. From this breakdown a core of the content of the curriculum will develop.

Chapter V includes a summary, conclusions, and recommendations for the establishment of a core curriculum for the training of students for occupational therapy certification.

#### CHAPTER II

#### HISTORY OF OCCUPATIONAL THERAPY EDUCATION

Occupations as therapeutic measures have been used for many centuries, although not in their present scientific form. William Rush Dunton places the origin of occupational therapy after Adam was expelled from the Garden of Eden to till the soil. Others place its origin at 2000 B. C., because records show that the Egyptians used games and similar devices to treat their mentally ill at that time. Still another account may be seen in the Bible when in 1025 B. C., David, as a youth, played his harp to cheer King Saul when he had depressing moods.

In the year 172 A. D., Galen, the Greek physician, wrote:
"Employment is nature's best physician and is essential to
human happiness." Accounts such as this are easily found,
even though records were not as accurate or as reliable as
those of today. More reliable accounts emerged during the
eighteenth and nineteenth centuries when the development of
hospitals began.

<sup>&</sup>lt;sup>1</sup>Dunton and Licht, p. 3.

Willard and Spackman, p. 1.

<sup>3</sup>American Occupational Therapy Association, "History of Occupational Therapy," p. 27.

<sup>4</sup>willard and Spackman, p. 1.

It was in approximately 1741 that Phillippe Pinel of France tried to use occupations to assist in the recovery of mentally-ill patients. He reported that some cases benefitted by having "moderate exercise and regular employment." Benjamin Rush, Father of American Psychiatry, believed in Pinel's method of treatment. He suggested to the director of Pennsylvania Hospital in 1798 that the patients be put to work at their regular duties of the household.

It has been found that many of the well-known psychiatrists of the nineteenth century recommended work as a cure for mental disorders. Among those with such beliefs were Johann Fredrick Reil of Germany in 1803, Sir James Connolly of England in 1813, Thomas Eddy of the United States in 1815, and John M. Galt of the United States in 1898. These men strongly advocated employment as an adjunct to the treatment of patients with mental disturbances. 7

A large number of the principles of the present form of occupational therapy are found in the files of the American Journal of Insanity. This magazine was founded in 1844 and is the predecessor of the American Journal of Psychiatry. The success of the use of occupational therapy as a treatment

<sup>5</sup>American Occupational Therapy Association, "History of Occupational Therapy," p. 28.

<sup>6</sup>Ibid.

<sup>&</sup>lt;sup>7</sup>Ibid., p. 27.

method has been found in the reports of superintendents of various psychiatric hospitals. 8

In regard to the beginning of occupational therapy,
Dunton and Licht report that "gradually, as the beneficial
effects of occupations manifested themselves, steps were
taken to formalize it." Such hospitals as Bloomingdale in
Pennsylvania employed crafts teachers to give formal instruction to the patients. A course was offered attendants of
psychiatric hospitals in 1908 at the Chicago School of Civics
and Philanthropy. The term "occupational therapy," coined by
George Edward Barton, came into being about this same time. 10

Susan E. Tracy made the first attempt to put occupational therapy on a scientific basis in 1910 when she published Studies in Invalid Occupation. This publication was a decided stimulus to the field. Because of this book the Massachusetts General Hospital gave a course in 1914; Eleanor Clarke Slagle organized the Henry Favill School for the training of occupational therapists. This school functioned until 1920.12

In 1913, Milwaukee-Downer initiated a course in occupations for invalids. It was from this beginning that this

<sup>8</sup>willard and Spackman, p. 2.

Ounton and Licht, p. 4. 10 Thid.

<sup>11</sup>Gardner, "A New Horizon for Occupational Therapy," p. 30. 12Willard and Spackman, p. 4.

school now trains its occupational therapists. 13 At about this same time Columbia University offered an elective course in the spring semesters on "Invalid Occupations." 14

Occupational therapy for the physically disabled was just appearing on the scene as a medical assistant in 1913.

Until this time, as may be noted, all emphasis had been placed on the benefit of employment to the mentally ill. The great stimulus of occupational therapy was yet to come.

Before the United States entered World War I in 1917, several of the foreign countries, such as Belgium, England, and France, had found the value of occupational therapy in the rehabilitation of those injured in war activities.

William Rush Dunton began to discuss the possibilities of forming an organization for occupational therapists, with George Edward Barton as collaborator. They believed the interest in occupational therapy would benefit more from an organized group of interested persons than from individual efforts. Accordingly, in March of 1917, a meeting was held in Clifton Springs, New York, and the organization of the National Society for the Promotion of Occupational Therapy was formed. In 1922, the name was changed to the American Occupational Therapy Association. 15

<sup>13&</sup>lt;sub>Ibid., p. 5.</sub>

<sup>14</sup>American Occupational Therapy Association, "History of Occupational Therapy," p. 31.

<sup>15</sup>Dunton and Licht, p. 4.

After the United States entered the war in 1917, General Pershing asked for 200 "Reconstruction Aides," 16 since this was what they were called at that time, to be sent over to Europe to help in the army hospitals. It was here that many surgeons and orthopedists became acquainted with the work of occupational therapists. This acquaintance led to the introduction of physical disability occupational therapy to the medical field.

A bi-monthly journal, entitled Archives of Occupational Therapy, first published in 1922, was the official organ of the National Society for the Promotion of Occupational Therapy Association; in 1925, in order to broaden the scope of material published, the name of the journal was changed to Occupational Therapy and Rehabilitation. In 1947, the American Occupational Therapy and Rehabilitation Association decided to become its own publisher and again changed the name of its journal, this time to American Journal of Occupational Therapy. 17

After the close of World War I many of the emergency schools that had assisted in training "Reconstruction Aides" discontinued for one reason or another. Three of these schools continued to function after reorganizing their programs. These schools were located in Boston, Philadelphia,

<sup>16</sup>willard and Spackman, p. 7.

<sup>17</sup>Dunton and Licht, p. 5.

and St. Louis and have continued to function to the present time.18

As the post-war period got under way, the transfer of the value of occupational therapy from the military hospitals to the civilian hospitals did not materialize. A few of the larger hospitals provided for a therapist, but with no great enthusiasm. The army hospitals discharged a large number of therapists, because the reconstruction had no public support.

After the nation had overcome the great depression, the need for occupational therapists began to rise. Milwaukee-Downer had joined with the other three schools to help in supplying this need. In 1930, the American Occupational Therapy Association decided to insure the high standards of the field by forming a registry of qualified individuals. With the assistance of the schools and the American Medical Association, the American Occupational Therapy Association conducted examinations to determine the qualifications of an individual before he was admitted to this national registry. In 1935, the American Occupational Therapy Association asked the American Medical Association to set up standards for accrediting colleges and universities that offered training for occupational therapists. 19 The American Medical Association set up a Council of Physical Medicine and Rehabilitation, which

<sup>18</sup>willard and Spackman, p. 7.

<sup>19</sup> Ibid.

in turn appointed a Committee of Medical Education and Hospitals to inspect colleges and universities and to establish means of accrediting worthwhile training centers. The Essentials of an Acceptable School of Occupational Therapy was published and approved by the American Medical Association in 1938 and was revised in December, 1939.

The four active schools in the United States, as well as the University of Toronto in Canada, were accredited in 1938.20 In 1939, recognition was given Kalamazoo School of Occupational Therapy. The demand for graduates from accredited schools grew as the need for constructive activities in the maintenance of mental and physical health was acknowledged. During this period occupational therapy was recognized as being beneficial in children's hospitals.

It was during the World War I era that occupational therapy gained a foothold in the medical field. Its progress was slow; it was not until World War II, however, that occupational therapy came of age. The opening of the war in the early 1940's found occupational therapy unprepared to meet the demand for qualified personnel to carry on this type of treatment in the army and navy hospitals.

The military demand for therapists far exceeded the number that were available. Many of the civilian hospitals were depleted of their occupational therapy staffs.

<sup>20</sup>Ibid.

In an effort to supply the desired personnel, both the military and tivilian hospitals established training courses for occupational therapy aides. These courses were largely responsible for interesting many people in this new, but fast-growing, field.

In 1944, at the request of the Surgeon General of the Army, many colleges and universities again began an emergency course to assist in supplying the desired personnel. The Navy established its own special school for training the therapists it needed. 21 Occupational therapists were first classified by the military as civilian employees, then reclassified as sub-professional; now they are considered professional. The value of occupational therapy in the recovery of tuberculosis patients was established during these war years. At the close of World War II in 1945, there were twenty-one colleges and universities offering occupational therapy training courses. Eighteen of these were approved by the American Medical Association. The year 1946 found another accredited school in the list. Three more were added in 1947; two more in 1948; and another in 1951. Today twentyseven colleges and universities of occupational therapy are approved by the American Occupational Therapy Association and the American Medical Association.

<sup>21</sup> Ibid., p. 5.

that (1) occupations have been used for remedial purposes for centuries; (2) the stages of discovery of their benefits in the different types of diagnoses were gradual; (3) there are other areas that will yet benefit from occupational therapy, such as in geriatrics and penal institutions; (4) after the use of occupational therapy was once discovered, the demand has grown to create a profession comparable to the nursing field and the other ancillary medical professions; and (5) it has a sound background supported by well-known physicians of the past and present.

As William Rush Dunton, the Father of Modern Occupational Therapy, said:

Gradually instruction of the principles and practices of occupational therapy is creeping into our medical schools. However, much remains to be done to acquaint physicians with the value of occupational therapy. 22

When this is accomplished and every doctor recognizes this worthwhile profession, the established colleges and universities of occupational therapy will have such a demand for their students that none of their graduates will go without positions.

<sup>22</sup> American Occupational Therapy Association, "History of Occupational Therapy," p. 34.

#### CHAPTER III

# DATA AND INFORMATION CONCERNING THE COLLEGES AND UNIVERSITIES INCLUDED IN THIS STUDY

With an understanding of the development of and need for occupational therapy, it appears to be wise first to make some observations concerning the colleges and universities to be considered in this study.

As has been previously stated, of the twenty-seven colleges and universities accredited by the American Medical Association and of the several types of courses, only twenty-five will be studied, and only the curricula which lead to a degree will be considered. Since the dates of accreditation of the twenty-five colleges and universities have been mentioned in the preceding chapters, no particular mention will be made at this time. The main consideration will be the location of the colleges and universities, the connection of the occupational therapy department with the college or university, and some of the trends discovered in the investigation for this study.

#### Geographical Location

In studying a map of the United States, as shown in Figure 1, with the college and university locations marked, it

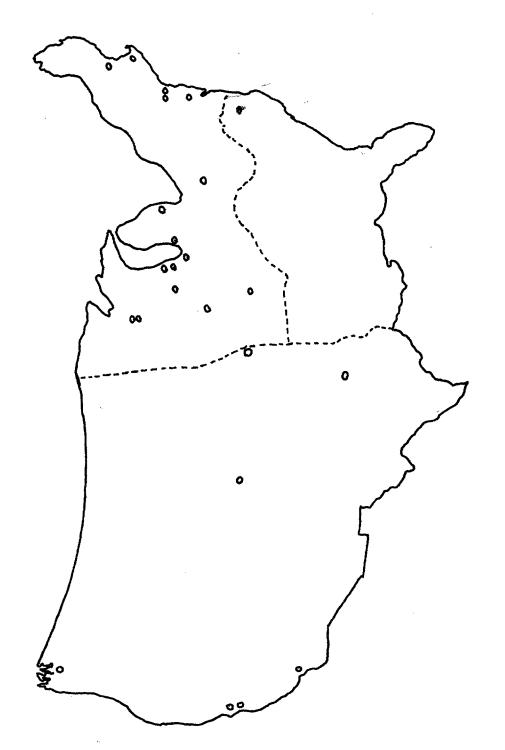


Fig. 1 -- Geographical distribution of the colleges and universities offering occupational therapy.

was found that only seven schools, or a little less than a third of the schools, are located in the western half of the nation, and of these seven, four are on the west coast. The southeastern part of the country is almost void of such colleges and universities, except for the one in Richmond, Virginia. The remaining seventeen of these colleges and universities are in the northeastern quarter of the country. This number represents two thirds of the present number of accredited colleges and universities. A logical question then arises: Is the demand for occupational therapists located only in these areas?

If the study is turned to the hospitals and institutions employing occupational therapists, there is a similar picture presented, as shown in Table I. The majority of the schools of occupational therapy are located in the northeastern quarter of the United States. This would indicate that the colleges and universities are located according to the nation's wealth and population near the location of institutions that employ therapists. However, it is a well-known fact that the nation's industry has begun lately to move to the west and especially to the southwest.

With the movement of industry there will, therefore, be movement of population, which in turn will create a shift in the wealth of the nation. It is interesting to note that the seven schools of the western half of the nation have been established within the past ten years, one since 1951 and

another as recent as 1947. This fact indicates that the colleges and universities, as well as the population, industry, and wealth of the nation, are beginning to enter an era of expansion to the West.

DATA CONCERNING THE GEOGRAPHICAL DISTRIBUTION OF HOSPITALS
AND INSTITUTIONS WITH OCCUPATIONAL THERAPY
DEPARTMENTS--LISTED BY SECTIONS<sup>1</sup>

Western	Number of Hospitals	Northeastern	Number of Hospitals	Southeastern	Number of Hospitals
Arizona California Colorado Idaho Kansas Montana Nebraska Nevada New Mexico North Dakota Oklahoma Oregon South Dakota Texas Utah Washington Wisconsin Wyoming	8 34 26 4 13 13 19 86 45 26 33 3	District of Columbia Illinois Indiana Iowa	26 16 16 16 16 16 16 16 16 16 16 16 16 16	Alabama Arkansas Florida Georgia Kentucky Louisiana Mississippi North Carolina South Carolina Tennessee Virginia	8 14 7 11 6 5 14 3 11 21
Total	292		603		108

American Occupational Therapy Association, Occupational Therapy Yearbook, 1954 (Madison, New Jersey, 1954), pp. 217-239.

### Departmental Affiliation

After the historical background of each of the twentyfive colleges and universities of occupational therapy had
been investigated, it was found that their origins vary too
greatly to be very definite concerning them. Basically, however, it can be said that each department began with one of
the three origins discussed below.

A number of schools started without any assistance from other departments. These schools have since either joined with or are closely related to other departments. A good example of this type of departmental beginning is the Philadelphia School of Occupational Therapy. This school was organized with its own Board of Directors in a location across the street from the University of Pennsylvania School of Medicine. Today it is affiliated with the School of Education and School of Medicine of the University of Pennsylvania.<sup>2</sup>

Boston School of Occupational Therapy had a similar beginning. In 1918, it was incorporated as a non-profit organization. Later, in 1945, it was affiliated with Tufts College.3

These departments that began on their own initiative be-

<sup>&</sup>lt;sup>2</sup>Helen S. Willard, "Philadelphia School of Occupational Therapy," American Journal of Occupational Therapy, I (February, 1947), 48.

<sup>3</sup>Boston School of Occupational Therapy, 1954 Catalogue, p. 1.

for the main purpose of being able to offer a degree course. The schools mentioned were not the only ones that had this type of beginning. Such schools as Richmond Professional Institute of the College of William and Mary and Washington University had similar origins.

As a general thing the new type of training was forced to affiliate with some other department of the school in order to complete a degree plan. The assisting departments were generally Art, Education, or Home Economics. Occupational therapy at Texas State College for Women is a department that was formed by some far-sighted people in the Department of Art. These people saw the need for and recognized the relationship of art to occupational therapy. After being a part of the Art Department, the Occupational Therapy Department became mature enough to become an independent department.

The School of Home Economics at Colorado Agricultural and Mechanical College still has the Occupational Therapy Department under its wing, so to speak. This is true of several other schools, such as New York University, Ohio State

<sup>4</sup>H. Elizabeth Messick, "Richmond Professional Institute of the College of William and Mary," American Journal of Occupational Therapy, III (March-April, 1949), 92.

<sup>&</sup>lt;sup>5</sup>Fanny B. Vanderkooie, "Texas State College for Women Course in Occupational Therapy," American Journal of Occupational Therapy, III (July-August, 1949), 215.

<sup>6</sup>Colorado Agricultural and Mechanical College, School of Home Economics, 1954 Catalogue.

New York University, School of Education, 1954 Catalogue.

University, 8 and Iowa State College. 9 To associate itself from the beginning with a medical school connected with a college or university was the third type of initiation used to form an occupational therapy curriculum for some schools. The College of Physicians and Surgeons of the School of Medicine of Columbia University began its own occupational therapy program during World War II and has maintained it in connection with the medical branch. Since occupational therapy is an ancillary part of medicine, this type of affiliation is common. Many schools, regardless of their origin, now are under schools of medicine. 10

#### Trends

In the investigation of the geographical location and school affiliation of the twenty-five colleges and universities that offer degrees to occupational therapy majors, it was found that three definite trends were also quickly taking hold in the colleges and universities.

The first trend found was that only girls were encouraged to become occupational therapy majors. This fact is

<sup>8</sup>Martha E. Jackson, "Ohio State University," American Journal of Occupational Therapy, II (April, 1948), 102.

<sup>9</sup>Marguerite McDonald, "State University of Iowa," American Journal of Occupational Therapy, II (September-October, 1948), 291.

<sup>10</sup>Marjorie Fish, "Columbia University-Division of Occupational Therapy," American Journal of Occupational Therapy, I (August, 1947), 260.

apparent especially in the reading where the feminine pronoun is used exclusively. This pronoun was used so much that the American Occupational Therapy Association had to bring to the attention of its members the English rule that "Use of the masculine gender is acceptable for reference to every group . . . although there are now many more women than men in the field." At present only five colleges and universities offer study in occupational therapy to girls alone. Table II is offered for consideration concerning this phase.

TABLE II

THE NUMBER OF GRADUATES FROM SCHOOLS
OF OCCUPATIONAL THERAPY<sup>12</sup>

Year	Number of Graduates					
	Men	Women				
1917-1919	0	100				
1942 1946	0 0	151 864				
1950 1952	8	383 341				

The reason for this increase in the male therapists is that many hospitals see a definite need for both sexes of therapists. One hospital superintendent expressed this attitude by stating as follows:

<sup>11</sup> American Occupational Therapy Association, Newsletter, July, 1951, p. 1.

<sup>12</sup>Martha E. Mathews, "Occupational Therapy Education," Higher Education, X (February, 1954), 18.

Male occupational therapists are as essential as female occupational therapists. There are many activities of interest to the male patients of a mechanical nature that only male therapists are qualified to engage, instruct and supervise. 13

Another change shows that occupational therapy colleges and universities are in very close relation to schools of medicine. Some have become absorbed by the medical schools because of this close association.

The third trend is less obvious than the two above, but is worthy of mention. Schools are being established now in state-supported institutions. In a quick glance at the history it is noted that at first schools were established independently of any other institution. As the number grew, some private colleges began their own departments. Lately, state-supported schools have come to the assistance of medical schools in meeting the challenge of supplying qualified occupational therapists.

<sup>13</sup>w. Anderson Thompson, "The Training of the Male Occupational Therapists," Occupational Therapy and Rehabilitation, XXI (June, 1942), 165.

#### CHAPTER IV

## AN ANALYSIS OF THE CURRICULA OF THE COLLEGES AND UNIVERSITIES

As was stated in the introductory chapter, there are twenty-seven colleges and universities that offer courses in occupational therapy as a major. Two of these schools have been eliminated since this study is interested only in those colleges and universities offering courses which lead to a bachelor's degree. A survey of the remaining twenty-five colleges and universities shows the number of semester hours required of the students, the content of the courses, and other pertinent information necessary to make this study complete. The data are derived from 100 per cent of the qualified colleges and universities participating in the training of occupational therapy personnel with a bachelor's degree.

Similar to any other field of endeavor, each department of occupational therapy varies in the curriculum offered. The similarity of courses offered, however, develops as one looks at the accumulated material.

All of the statistical information used for this study has been derived from catalogues, brochures, and proposed degree plans from each of the twenty-five colleges and

universities. After a careful study of each curriculum had been made, the number of semester hours for each course required of a major of occupational therapy was summarized, as shown in Tables III through VII. The headings used for these tables were obtained from the American Medical Association's "Essentials of an Acceptable School of Occupational Therapy" and from the American Occupational Therapy Association's Curriculum Guide for Occupational Therapy. Since some colleges and universities offer courses that were not listed by either of the above-mentioned sources, these additional headings were also used.

Requirements of the American Medical Association

Before an analysis of the curricula of the colleges and
universities is effered, it should be brought to the attention of the reader that all accredited departments of occupational therapy first base their course on Section VIII of
"Curriculum" from the "Essentials of an Acceptable School of
Occupational Therapy" prepared by the Council of Medical Education and Hospitals of the American Medical Association.
Paragraph nineteen, parts a, b, and c of this section are offered here:

American Medical Association, Council on Medical Education, "Essentials of an Acceptable School of Occupational Therapy," Journal of the American Medical Association, CXLI (December 17, 1949), 1167-1168.

Quide for Occupational Therapy Association, Curriculum Guide for Occupational Therapy (New York, 1950).

a. Theoretical: The hours devoted to theoretical training should be still further subdivided as follows:

	Required Subjects	Semester Hours
	(1) Biologic Sciences to include:	
	Anatomy	
	Kinesiology	
	Neuroanatomy	18
	Physiology	
	Psychology	
	(2) Social Sciences to include:	
	Sociology	
	Individual readjustment	4
•	Social and educational agencies	
	(3) Theory of Occupational Therapy to inc	lud <del>o</del> :
	Administration	
	General Medicine and Surgery	
	Orthopedies	6
	Pediatrics	8
	Tuberculosis	
	Psychiatry	
	(4) Clinical Subjects to include:	
	General Medical and Surgical: Blindness and deafness	
	Cardiac diseases	
	Communicable diseases	
	Neurology	7
	Pediatrics	. •
	Psychiatry	
,	Tuberculosis.	
	(5) Blectives	2
	Total	<u>39</u>
ъ.	Technical: Because of the increasing dema	
~•	the medical profession for qualified ther	
	trained in special fields applicable to t	
	cation and training of disabled persons a	
	as to the treatment of the sick, there sh	
	a certain amount of flexibility in techni	
	quirements. A minimum of 25 semester hou	rs should
	be devoted to technical training. The ma	jor por-
	tion of these 25 semester hours may be in	
	the following fields with survey courses	in other
	fields:	
	(1) ArtsFine and Applied:	San San San
*	Design, leather, metal, plastics, t	extiles,
	and wood	
	(2) Education-Special and Adult:	
	Home economics and library science	

(3) Recreation:

Music, dramatics, social activities, gardening, and physical education

c. Clinical Training: The time for clinical training should be not less than 36 weeks (nine months). No student should be assigned to a clinical training center for less than eight weeks. (Rotating Assignments may be made within a given center so that the student may have varied experience with different patient groups within the one institution. Each of these assignments should be for not less than four weeks.) The division of time in the various fields should be as follows:

Psychiatric conditions. 12 weeks
Physical disabilities (surgical,
neuromuscular, and orthopedic). 8 weeks
Tuberculosis. 4 to 8 weeks
Pediatrics. 4 to 8 weeks
General medicine and surgery
(other than physical disabilities). 4 to 8 weeks.

The colleges and universities develop their curricula from these essentials. In certain subjects only the minimum requirements are offered, whereas in other courses more than the minimum is given. After a study of the analysis of these curricula has been made, it is found that as a whole, more than this basic minimum is required by the average college or university.

### Theoretical Subjects

The first consideration of this study concerns that part of the curriculum devoted to the theoretical subjects offered by the colleges and universities, as shown in Tables I, II,

<sup>3</sup>American Medical Association, Council on Medical Education, "Essentials of an Acceptable School of Occupational Therapy," pp. 1167-1168.

and III. This area of study will be divided into Sciences,
Biological and Social; Theory of Occupational Therapy; and
Clinical Subjects. These divisions were derived from the
previously-presented part of the American Medical Association's
essentials.

### Sciences, Biological and Social, Required by the Twenty-Five Schools

Table III contains eleven items to be considered. This study does not consider the subjects of first aid, economics, and physics, since such a small number of the twenty-five colleges and universities require these courses, and their contribution to a core curriculum is negligible. Individual adjustment, as well as social and educational agencies, will be placed for study under other headings. Individual adjustment is considered as mental hygiene by the colleges and universities and has been so placed in Table VII under this heading. Since the subject of social and educational agencies is considered by most schools as rehabilitation, it is included as such under theory of occupational therapy in Table III. This now leaves for consideration and discussion seven items in Table III.

First to be considered is miscellaneous sciences. This column is the "catch-all" for the area of sciences. Such subjects as botany, chemistry, bacteriology, and astronomy are placed here. The belief of the colleges and universities is that some basic knowledge in the science field is desirable

TABLE III

DATA AND INFORMATION IN THE AREA OF SCIENCE REQUIRED
IN TWENTY-FIVE COLLEGES AND UNIVERSITIES

		Gourses Elective	Required s in Pare	in the Tw	enty-Five Expressed	ng kanggang panggang panggang Panggang panggang pa
Colleges or Universities*	Miscellaneous Sciences	First Aid	Anatomy	Kinesiology	Neurology	Physiclogy
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	7 24 1 24 8 6 4 16 20 8 8 10 12 6 3	2	6334473440105384	430440400555040	1	162443243544252394
16 17 18 19 20 21 22 23 24 25	6 3 9 •• 4 14 12 ••	2	38445355626	<pre></pre>	12122	3948365424

\*See Appendix 1 for names of the colleges and universities used here.

TABLE III -- Continued

	Colleges and Universities, with Suggested in Number of Semester Hours in Each Area								
General Psychology	Sociology	Individual Adjustment	Social and Educational Agencies	Economics	Physics				
1 5  4 3 6 3 6 3 6 3 10  8 14  6 15(24) 6 3 4 6 3	9 10 8 6 3 6(16) 7 3 2 3 4 10 5 3 9 3(24) 8 14 6 3 6	(See "Mental Hygiene," Table VII)	(See "Rehabilitation," Table IV)	5 (9)	5				

as preparation for entering the more specific and advanced fields which will be mentioned. This belief varies, however, with four colleges and universities requiring no such work, thirteen offering less than ten hours credit, five offering from ten to twenty hours, and three offering twenty or more hours credit. A total of 203 hours are required in these allied sciences by the twenty-five colleges and universities. This averages approximately 8.12 hours for each of the colleges and universities.

The subject of anatomy needs no explanation, for it is exactly what the name implies. All twenty-five colleges and universities require that work be done in this field. Emphasis varies, however; one schools asks that two hours be taken; five schools require three; eight schools require four hours; ten schools offer five or more hours in this subject. No college or university has more than ten hours credit required in anatomy. A total of 121 hours are given in anatomy by the twenty-five colleges and universities, the average being 4.84 hours.

Like anatomy, kinesiclogy needs no introduction. A total of seventy-four hours are offered by the twenty-five colleges and universities, making an average of 2.96 hours. One school offers no courses in this subject; seven ask that their students take as little as two hours; ten give three hours credit for this work; six require that four hours be taken; and one school requires that its students take at least six hours.

only ten of the twenty-five colleges and universities require neurology as such for their students. Many of the colleges and universities feel that the subject is covered satisfactorily in other subjects, such as anatomy or physiclegy. There is a total of twenty-one hours offered, or an average of .87 hours per school.

physiology is combined with zoology because of the similarity of the two. All of the twenty-five colleges and universities offer at least one hour of study in this area. One school offers only one hour; five schools offer two hours; four require three hours; eight offer four hours credit; three ask that their students take five hours; two give as many as six hours credit; and one school feels that at least eight hours should be taken, whereas another thinks that it is important enough to devote nine hours to the subject. The sum of ninety-nine hours are required by the twenty-five colleges and universities, making an average of 3.96 hours credit per school in this subject.

The heading of psychology is used here to consider all subjects offered by the colleges and universities that deal generally with the subject. Such divisions as child psychology, abnormal psychology, and psychiatry have been emphasized sufficiently to be considered separately in this study. A total of 123 hours in general psychology are offered by the twenty-five colleges and universities. This is an average of

4.92 hours per school. It is noted that three schools do not offer general psychology. They do, however, give psychology in such forms that will be considered later in this study. One schools gives two hours credit for this study; seven ask that three hours be taken; three schools offer hour hours; and six schools give six hours. One school requires that its students take five hours in psychology. Four schools ask that as many as eight, ten, fourteen, or fifteen hours credit in this subject be taken by their students.

All twenty-five colleges and universities, except one, require sociology. One school believes that as many as fourteen hours should be taken. One school believes that as little as two hours are sufficient; yet six ask that three hours be taken; one offers four hours credit; one, five; six require six hours; eight colleges and universities offer as many as seven, eight, nine, or ten hours in their curricula. A total of 160 hours are given by the twenty-five colleges and universities in the field of sociology. The average is 6.4 hours.

Attention should be placed on the fact that although the American Medical Association, as well as the American Occupational Therapy Association, requires that a school have at least twenty-two hours devoted to the sciences, both biological and social, the average number of 33.28 hours given by the twenty-five colleges and universities, including first aid, economics, and physics, is 8.33 hours more than is required.

### Gourses Concerning Theory of Occupational Therapy Required By the Twenty-Five Colleges and Universities

Table IV, covering the "Theory of Occupational Therapy," will be considered next. In the area devoted to orientation such subject matter as history, ethics, and principles is considered. Here it is noted that one of the twenty-five colleges and universities requires this course, but gives no credit to the student for taking it. Every college and university requires that this course be taken, however. Eight colleges and universities offer one hour credit; eleven offer two hours; four give three hours credit; and one asks that six hours credit be taken. An average of 1.92 hours are given, or a total of forty-eight hours.

The part of the curriculum that deals with the study of organization and administration denotes just what the name implies. This course is primarily concerned with giving the student an understanding of the administrative procedure involved in setting up and operating an occupational therapy unit in a hospital situation. Many of the twenty-five colleges and universities offer this course within the framework of other subject matter. Four schools do not offer this subject at all. Of those that do offer it, ten offer one hour credit; nine offer two hours; and three hours are required by two schools. The total is forty-four hours credit. The average number of hours given for taking the subject of organization and administration is 1.76.

TABLE IV

DATA AND INFORMATION IN THE AREA OF THEORY OF OCCUPATIONAL THERAPY REQUIRED IN TWENTYFIVE COLLEGES AND UNIVERSITIES

**	versi	ties,	uired i with Su n Numbe	iggest	ed Ele	ctives	in Par	centhe	ses,
College or University*	Orientation	Organisation and Administration	General Medicine and Surgery	Orthopedica	Pediatrics	Tuberculosis	Psychiatrics	Rehabilitation	Pre-Clinical Training
1 23 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 22 22 23 24 25	232122 .312112122232326111	2221.1.2132.11211222	13411211131111312213 24 1	3331121113222441221312213	.2.1.12111.21222.1	·211111131111 ·1112 · 2 · · · 1	33511211132222 2222222211	1 .31 .11 .32 .46221321281	32

\*See Appendix 1 for names of colleges and universities.

The field dealing with the various disabilities is covered in general by combining related areas. It has been divided here mainly for the purpose of determining where the emphasis is placed. This subject deals primarily with the application of occupational therapy to the needs of the various disabilities, not particularly with the condition itself.

For the purpose of understanding, an example would be in the field of tuberculosis. The signs and symptoms of this disease are not particularly considered. The course of study takes into consideration only the problem of what occupational therapy can do to aid in the recovery of the patient with this condition. Such subjects as sedentary medias, post-operative measures, and pre-vocational training are studied.

General medicine and surgery is the "dumping ground" for medicine. When a diagnosis does not particularly fit into any of the divisions mentioned later, it is placed in this area. Such conditions as cardio-vascular disturbances, dermatitis, and the like fall under this heading. An average of 1.66 hours credit are devoted to general medical and surgical conditions, or a total of 41.5 hours. Only one of the twenty-five colleges and universities fails to offer any subject in this area, and only one offers the equivalent of only one-half hour credit. Thirteen colleges and universities give a full hour credit; four give two; four give three hours; and two believe it is important enough to offer four hours credit for this study.

A total of fifty-one hours are offered in this area of orthopedics, or an average of 2.04 hours. Unlike the other fields of disabilities, this one is offered by all the twenty-five colleges and universities. Nine colleges and universities give only one hour credit for the subject, whereas eight give two hours credit; six offer three hours; and two require four hours credit.

The subjects in which the least consideration is given are the fields of tuberculosis and pediatrics. The probable cause of this is that many pediatric conditions are studied under orthopedics, and tuberculosis is studied as one diagnosis, whereas the other areas consider several diagnoses.

Many of the colleges and universities do not offer either course, but absorb these items in another area for consideration. The total of forty-seven hours are required in both of these subjects. This is an average of 1.88 hours credit given by each of the twenty-five colleges and universities.

After a study of the beginning of occupational therapy, it is easily understood why psychiatry is so strongly emphasized in the colleges and universities. It ranks second only to the field of orthopedies. Only one school does not consider psychiatry for study. A total of 44.5 hours are offered in this subject, averaging approximately 1.78 hours credit. One school offers five hours credit for the study of psychiatry; three give three hours credit; eleven require two hours;

eight ask that at least one hour be taken; and one believes that the equivalent of one-half hour is sufficient.

The section of this analysis dealing with rehabilitation has been placed here, because many of the twenty-five colleges and universities class it under theory of occupational therapy. Although it deals with agencies both social and educational, it is referred to as rehabilitation by these colleges and universities. This section takes into consideration agencies which assist with financial, educational, and research problems associated with both specific and general handicapping conditions. Seven of the colleges and universities offer no specific study in this area. Of the colleges and universities that do require such study, a total of forty-four hours are required, or an average of 1.76 hours.

Pre-clinical training is not offered by eleven colleges and universities. This course is preparatory for clinical training. It consists mainly of observation, routine work, or both, in an actual hospital department of occupational therapy. The colleges and universities feel that placing the student in a "live" situation will stir the individual toward becoming a better student. It is offered in most of the twenty-five colleges and universities at about mid-way in a student's educational progress, so as to act as a "pick-up" in his interest. Of the colleges and universities that offer this course, a total of thirty-three hours credit, or an average

of 1.37 hours, are required. One school feels it is important enough to give as much as six hours credit upon completion of this subject.

Although the American Occupational Therapy Association believes it is essential for a college or university to offer eight hours in theory of occupational therapy, a total of 353 hours are offered in this field, or an average of 14.12 hours per school. This average number of hours is 6.12 more than the American Medical Association has listed as being essential.

### Clinical Subjects Required by the Twenty-Five Colleges and Universities

been included under the heading of "Clinical Subjects," as shown in Table V, is unlike that of the previous section of theory of occupational therapy in that each subject is handled from the standpoint of the cause and medical care of the different diagnoses rather than from the standpoint of treatment. Using the same example as that used in the preceding section, namely, tuberculosis, the study is directed to the bacillus causing the condition; the state of the individual's health before, during, and after the attack; and the measures, surgical or otherwise, that should be taken. This type of study is intended to acquaint the student with the condition of the patient with whom he works and to adapt his media accordingly.

TABLE V

DATA AND INFORMATION IN THE AREA OF CLINICAL SUBJECTS REQUIRED IN TWENTY-FIVE GOLLEGES AND UNIVERSITIES

	versitie	Required is, with Su	iggested E	lectives	in Paren	theses,
College or University*	General Medicine and Surgery	Orthopedies	Pediatrics	Psychlatry	Tuberculosis	Neurology
1 2 3 4 5 6 7 8 9 10 12 13 14 15 17 18 9 21 22 22 22	40 ·111111151 ·204110114501	223211121312422122112	221 .1113 .1 .21 .212	2	······································	12211121211
23 24 25	1	Î	i	í l	i	1 2 1 1

#See Appendix 1 for names of colleges and universities.

This subject is generally given under the lectureship of a doctor in the particular area under study. The student either goes to the hospital situation, to a medical school where doctors are readily available for this type of work, or the doctors come to visit in the classroom for the lectures. The use of the medical school has been found to be the most common practice among the twenty-five colleges and universities studied.

General medicine and surgery is offered by all but two of the twenty-five colleges and universities; thirteen give at least one hour credit for this course; five require two hours to be taken; one offers three hours; three offer four hours, whereas one school believes that at least five hours should be completed. A total of forty-three hours are required by the colleges and universities, or an average of 1.72 hours for each of the twenty-five colleges and universities.

The subject of orthopedies is offered by all of the twenty-five colleges and universities. This is not true of any of the other subjects in this section. A total of forty-two hours are offered by the colleges and universities. This is an average of 1.68 hours per school. Twelve schools offer only one hour upon completion of this subject; ten give two hours credit; two require that their students take at least three hours; and one school asks that four hours be taken.

The colleges and universities devote 33.5 hours to the study of children's conditions, or pediatrics. The average amount of work for the colleges and universities is .94 hours. Eight colleges and universities do not offer any courses, as such, to their students, whereas ten give one hour; five require two hours; one gives three hours credit; and one school offers the equivalent of only one-half hour.

A strong area of study is in the field of psychiatry. A total of forty-one hours are required by the twenty-five colleges and universities, or an average of 1.64 hours per school. Two schools do not offer the course as such; two give as many as three hours, whereas fourteen require two hours; one gives the equivalent of one and one-half hours; five offer one hour; and one asks that one-half hour credit be taken.

Eleven of the twenty-five colleges and universities offer no study in the area of tuberculosis. This subject can
be easily covered in either general medicine and surgery or
orthopedics. However, twelve of the colleges and universities give at least one hour to the study of tuberculosis; one
offers an equivalent of one and one-half hours; and one requires as much as three hours credit. There are 16.5 hours
offered by the schools, or an average of .68 hours by each.

Although neurology is a subject that comes under the heading of orthopedics, it has been set up as a separate

heading by the American Medical Association's committee, as well as by the listing from the different colleges and universities. Only seven of the colleges and universities do not offer this course separate from orthopedics. Twelve require that their students take at least one hour in this subject. Six ask that as many as two hours credit be earned in this area. A total of twenty-four hours are offered by the schools, or an average of 96 hours.

Here again it is noted that the colleges and universities average 7.7 hours listed as required clinical subjects. This is .7 hour above the amount of seven hours believed to be necessary, according to the Council of Medical Education and Hospitals of the American Medical Association.

#### Technical Subjects

The area of "Technical Subjects" will be explored now. This area covers the fields of Art, Education, and Recreation. The analytical Tables VI, VII, and VIII are devoted to this part of the study.

### Art Required by the Twenty-Five Colleges and Universities

The study of the subject of art will be mainly concerned with applied art. No particular introduction for the headings in this division need be made, for all are well known.

The heading of general art was derived from the fact that many schools offered a varying number of subjects, such as sculpture, painting, and art history. It will be noted here that although a few schools require that such subjects be studied, there are others that encourage electives be taken in this field. No more than seven hours are required by any one school. In fact, only one school offers that number, as shown in Table VI. Two schools require that six hours be taken; two give five hours; two offer four hours; two require three hours; one requests that at least two hours be taken; and one offers one hour. Only eleven of the schools require that general art subjects be taken.

Nine offer these courses as suggested electives. A total of forty-six hours are required by the schools, or an average of 1.84 hours for each of the twenty-five colleges and universities.

Ceramics appears to be a very popular course offered to the students of occupational therapy. Four of the colleges and universities offer one hour in this subject; ten offer two hours; five give three hours. One of the schools asks that as many as four hours be taken. Three schools do not offer any ceramics courses to their students. A total of forty-three hours are given by the schools, making an average of 1.72 hours per school.

The subject of clothing considers not only construction, but purchase, design, and quality of clothing as well. Thirteen of the colleges and universities offer courses in this

TABLE VI

DATA AND INFORMATION IN THE AREA OF ART
REQUIRED BY THE TWENTY-FIVE COLLEGES
AND UNIVERSITIES

*	Cour Elec	Courses Required in the Twenty-Five Electives in Parentheses, Expressed						
Colleges or Universities*	General Art	Ceremics	Clothing	Design	General Crafts			
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	6 3 (16) 3 (2) 1 (22) 5 (11) 7 (4) (5) (24) (24) (30)	132 .12231322432 .221 .223	23.33.64232	4543566.65362.0366.4.44	6 6 3 6 8 6 8 11 (7) 3 6 7 13 4 9 4 8 8 (5) • 6 4 7 • 8 6 (8)			

\*See Appendix 1 for names of colleges and universities.

TABLE VI--Continued

Col in	leges and Number of	Universi Semester	ties, wi Hours i	th Suggest n Each Are	ed a
Jewelry	Leather	Metal	Printing	Wesving	Mood
2 1 1 1 1 1 1 1 1	1 2 2 1 1 2 2 2 1 1 2 2 1 2 2	1 2 1 ½ 1 (1) 1 2 2 2 (1) 1 2 4	1	435.42.3262.6223333623.323	454334222332622235333.341

field, but one of them requires that only one hour be taken; four require two hours; five give three hours; one offers four hours; one, five; and another gives six hours credit. A total of thirty-nine hours are required by the schools, or an average of 1.56 hours per school.

Design is believed to be important by many of the schools. One school offers ten hours in the subject, and two schools offer only two hours. Only six schools do not require any work in this subject, one of which suggests that electives be taken in this area. One school believes that the study is important enough to require ten hours credit in this area. Six of the colleges and universities offer six hours; one gives five hours; five require four hours; four ask that at least three hours credit be earned; and two think that two hours credit should be earned. A total of eighty-seven hours are offered by the schools, which is an average of 3.48 hours per school.

The largest area of general crafts consists of subjects that are either offered together, minor subjects to which little time is devoted, subjects that only a few schools offer, or a combination of the aforementioned. A total of 143.5 hours are offered by the schools in this subject, or an average of 5.78 hours for each school.

There are several schools that do not offer jewelry as a subject of study. This area may be included in a general

crafts course or in metal. Thus the student is "exposed" to the field in this manner. In the schools that do give the course as required work, a total of 11.5 hours are offered. This is an average of .46 hours for each of the twenty-five schools.

In leather a total of 20.5 hours are required of the students in the twenty-five colleges and universities. This is an average of .82 hours for each school. Ten of the schools do not offer this subject for study. One-half hour only is offered by one school; eight of the schools require one hour; and two hours are given by six of the schools.

Six schools do not require the subject of metal. One school offers the equivalent of one-half hour in metal; nine require one hour; six ask that two hours be taken; one requires that three hours be earned; and two schools ask that their students take four hours. A total of 32.5 hours are given, or an average of 1.3 hours for each of the twenty-five schools.

Weaving is required by all the schools except four. A total of sixty-nine hours are offered by the schools; this will give an average of 2.79 hours for each school. Seven schools offer two hours; eight give three; two require four; one asks that five hours be taken; and three require as many as six hours credit in this course.

All of the schools except one offer woodwork. Most of these schools give hand woodworking only, whereas others

offer both hand and machine woodworking. One school offers one hour in woodworking; two hours are required by seven of the schools; ten ask that three hours be earned; four give four hours; two schools offer as many as five and six hours. A total of seventy-two hours are required in this area, or an average of 2.88 hours per school.

Printing is required by only twelve schools. This subject could be obscured under the heading of general crafts. Six schools give one hour in this course; three give two hours credit; two offer three hours; one school requires that as many as eight hours be taken. A total of twenty-six hours are offered in printing, or an average of 1.04 hours for each of the schools.

## Professional Education Courses, Special and Adult, Required by the Twenty-Five Colleges and Universities

Education is a subject that is required by the American Medical Association in the training of occupational therapy students. Table VII shows that the average number of hours required in education is 10.28 hours. Many schools have set up provisions for their students to take more hours of education so that they may receive a teaching certificate, occupational therapy certificate, and a degree. From Table VII it is seen that a large number of required electives are offered in this field.

TABLE VII

DATA AND INFORMATION IN THE AREA OF EDUCATION,
SPECIAL AND ADULT, REQUIRED IN THE TWENTYFIVE COLLEGES AND UNIVERSITIES

*	versities.	Courses Required in the Twenty-Five Colleges and Universities, with Suggested Electives in Parentheses, Expressed in Number of Semester Hours in Each Area						
College or University*	Miscellaneous Education	Abnormal Psychology	Child Psychology	Wental Hygiene	Home Economics	Library Science		
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\*See Appendix 1 for names of colleges and universities.

Psychology is mixed with the subject of education in many instances, but an attempt has been made to separate the two and place psychology in its proper column in one of the preceding tables. Child psychology, however, was placed in this heading, since it was impossible to separate it from courses in child development and education.

Miscellaneous education, as used here for a heading, consists not only of the different types of education courses which may be offered, but also of an introductory course of education taken by their students. Four ask that from six to fourteen hours be elected from the field of education. A total of forty-seven hours are required by the schools, which makes an average of approximately 1.88 hours per school.

The subject of abnormal psychology is offered by the education departments; therefore, it has been logically placed here. The study of this subject is essential because the patients with whom the students will eventually work are to some extent abnormal. Twelve of the schools do not offer any work in this field. The thirteen schools that offer it as a subject of study require a total of forty hours. This makes an average of 1.6 hours for each school. Two schools give two hours credit; nine offer three hours, whereas one requires six hours credit in this field.

Child psychology is given by all but six schools. Four require only two hours credit; eleven ask that their students

take at least three hours, whereas four schools offer from four to eight hours in this field. This is a total of sixty-six hours, or an average of 2.64 hours for each of the twenty-five colleges and universities.

Since the American Medical Association has mentioned the topic of individual adjustment, it has been listed here. The heading of mental hygiene is used because most schools offer individual adjustment designated by that name. Only eight schools require study in this area. They offer a total of twenty-one hours, or an average of .84 hours for each school.

Two schools offer home economics to their students. A total of eighteen hours are given. One school offers as many as twenty-four hours in electives, however.

Library science and home economics are similar in that very few of the schools give any required work in this field. Four schools offer a total of 4.5 hours. One school gives twenty-four hours credit as suggested electives in the area.

## Required by the Twenty-Five Colleges and Universities

The subject of recreation is essential in the curriculum of the student studying occupational therapy, as may be found in the essentials set up by the American Medical Association. Table VIII, devoted to this division, looks rather scant. It may be noted here that the American Medical

TABLE VIII

DATA AND INFORMATION IN THE AREA OF RECREATION REQUIRED IN THE TWENTY-FIVE COLLEGES
AND UNIVERSITIES

*	versities.	Courses Required in the Twenty-Five Colleges and Universities, with Suggested Electives in Parentheses, Expressed in Number of Semester Hours in Each Area						
College or University*	Dramatics	Gardening	Physical Education	Music	Speech	General Recreation		
1 2 3 4 5 6 7 8 9 0 11 12 13 14 15 16 17 18 19 22 22 23 24 25	1(16)	2 (3)	(16) (16) (24) (24) (30)	(16) (6) (4) 1 (24) (12) (30)	2(16) 5 6 (12) 3 (12)	1 2 (4) 2 3(3) 2(10 2 1 (4) 1		

\*See Appendix 1 for names of colleges and universities.

Association provides that survey courses may be taken in two of the three fields of technical subjects, while a major portion of the minimum required hours may be devoted to the third area. Therefore, it is found that many schools do not offer recreation as such in their curricula. Other schools give only one of the subjects listed in Table VIII. A few schools devote more than is required to several of the listed subjects. Five schools offer music as a suggested elective, whereas only two schools list music as a requirement. In the area of physical education it was rather difficult to differentiate between the number of hours required af all college students and that required of occupational therapy majors only. Four hours were estimated as a general requirement for all students, and the number listed is what remained. The results may easily be questioned, but the resulting figure is not of very great importance.

In the field of recreation a total of seventy-one hours are given. This is an average of 2.84 hours for each of the twenty-five schools. The total is derived from the sum of two required hours in dramatics, eight hours in gardening, seven hours in physical education, four hours in music, twenty-four hours in speech, and twenty-six hours in general recreational subjects.

It may be of interest to note that a total of 274 hours are listed as suggested electives in recreation. The twenty-five colleges and universities list a total of 917.5 hours

as being required in the division of technical subjects. This is an average of 36.68 hours for each school. The American Medical Association asks that at least twenty-five hours be required, or approximately 11.68 hours less than the average school offers.

### Clinical Training

All of the twenty-five colleges and universities require that their students have some clinical training. This subject is not offered for credit on the degree; therefore, it is essential to have a minimum of nine months' experience in the five main divisions of hospitals before a student is eligible for the national registration examination. Clinical training is necessary for a student to get a certificate of occupational therapy, although a degree may be had without it. Some schools do allow credit for the first area of training to apply toward meeting the requirements of a degree. This clinical training, or hospital affiliation, is comparable to the internship of the doctor or the apprenticeship of the laborer.

five colleges and universities grant semester hours of credit for the completion of the nine months or more of clinical training. A total of 144 hours are given for the five major fields. This averages approximately six hours per school. This average number divided by the nine months of training

required will show that an average of .66 hours are given for each month of affiliation.

### TABLE IX

# DATA AND INFORMATION IN THE AREA OF CLINICAL TRAINING REQUIRED IN THE TWENTY-FIVE COLLEGES AND UNIVERSITIES

College or University	Se	mester Hours
Boston School of Occupational Therapy Colorado Agricultural and Mechanical College		20
Columbia University Towa, University of		io
Kalamazoo School of Occupational Therapy		5
Kansas, University of		18
Michigan State Normal College		* 0
Mills College		* *
Milwaukee-Downer College	**************************************	**
Minnesota, University of	*	18
Mount Mary College New Hampshire, University of		* *
New York University		5
Ohio State University		18
Pennsylvania, University of		ĩo
Puget Sound, College of		24
Richmond Professional Institute		4.6
Saint Catherine, The College of	. *	6
San Jose State College		* *
Southern California, University of		• •
Texas State College for Women		30
University of Illinois	•	• •
Washington University	4	• •
Wayne University		• •
Wisconsin University		* #

In this area of the essentials set up by the American Medical Association, no minimum hours are required. A time minimum of nine months, or thirty-six weeks, is asked. All of the twenty-five colleges and universities comply with this requirement. The variation is only that some schools offer credit for this work, whereas others do not.

#### CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

Occupational therapy is a relatively new field. It was really recognized around the turn of the century. The principles upon which it is based go back into history an indefinite number of centuries. These principles came to us mainly by way of the area of psychiatric medicine. Well known men in this field's past have expounded only the best of these principles so that today occupational therapy has a firm basis from which to develop.

During, and shortly after, World War I, occupational therapy expanded into other areas of accomplishment. The fields of physical disabilities, pediatrics, and tuberculosis opened up for exploration. Occupational therapy has accepted the challenge and has established itself well in these different fields of medicine.

Today other specialists have asked occupational therapists to assist them in their work of rehabilitation. The area of general medicine and surgery has been developing as a very good prospective field of endeavor. Geriatrics is the most recent field to demonstrate that occupational therapy can help.

Even the penal institutions have shown a desire to have occupational therapy lend its aid in human salvation.

All of the institutions well known for their assistance in patient recovery have occupational therapists on their staffs. Many of them cannot get a sufficient number to carry out a complete program such as they would like to have for their patients. The federal government has made such good use of occupational therapy that it has created numerous positions to be filled in their many hospitals. This is true in the veterans' hospitals and military installations, as well as in rehabilitation centers.

The demand has grown and a few colleges and universities have attempted to meet this demand. Each of the wars has found the occupational therapy profession lacking. Colleges and universities have been established each time to alleviate the situation. Many of these institutions of higher learning have found the field so attractive that in each instance they have continued their efforts to supply the demands.

ber of colleges and universities now offering occupational therapy cannot fulfill the needs of all the institutions that could use the services of occupational therapists. It is reported by reliable sources that an estimated 14,000 more occupational therapists will be needed by the year 1960. This figure is almost six times the current out-put of the present colleges and universities.

Many national organizations have assisted financially in relieving the demand for occupational therapists. Recruitment grants have been given by several of these organizations. Others have set up scholarship funds to encourage students to go into this field. The federal government has established attractive programs in military hospitals, as well as in other hospitals, so that qualified people would fill the many existing vacancies. All these new programs have begun to show their usefulness, and the colleges and universities now offering occupational therapy show an increase in enrollment. The only answer left is to do one of two things, namely, to expand the present departments, or to set up new schools of occupational therapy.

## Conclusions

This study has taken the attitude that new departments of occupational therapy should be established. A look at the geographical location of the colleges and universities now offering occupational therapy will show that more than half of them are now located in the northeastern quarter of the United States. The present idea of industrial decentralization is beginning to move the nation's wealth and industry to the western half of the nation. This has caused the population to move their homes to the west, also. With this era of shifting population, the colleges and universities of the west should be prepared for the eventual increase in their

enrollments. This is true of the field of occupational therapy, for with the shift of the people there will be a growing need for expanding hospital facilities and, therefore, for this profession.

With the realization that occupational therapy has a sound foundation, that it is very much in demand by the civilian as well as the military hospitals, and that more universities and colleges, possibly in the west, should take up the challenge of starting an occupational therapy department, this study has attempted to analyze the present curriculum of the twenty-five colleges and universities now offering occupational therapy to enable the establishment of new schools.

The analysis that has been made revealed a prevailing tendency in all the twenty-five college and university curricula. Detailed tables of the analysis, showing these tendencies, have been presented in the preceding chapter.

These tables have given a thorough breakdown of the curriculum offered by the different occupational therapy departments. Each division suggested by the American Medical Association's "Essentials of an Acceptable School of Occupational Therapy" has been considered and an attempt made to clarify each subject and to bring to the reader's attention those parts believed to be important.

Besides showing the amount of work effered by each school in each field studied, the study further demonstrated that

the twenty-five colleges and universities offer more semester hours in each division than are required by the American Medical Association and the American Occupational Therapy Association.

An even clearer understanding of the curriculum may be obtained by placing the analysis in tabular form. Table X has been made with this in mind.

TABLE X

DATA CONCERNING THE OFFERINGS IN THE TWENTYFIVE COLLEGES AND UNIVERSITIES STUDIED

			Subjects	Average Number of Gredits Required	Total Number of Credits Required	Number of Schools
I.	The	oret	ical Subjects			
	A .		ences			1
		1.	Miscellaneous Sciences	8.12	203	21
		2.	Anatomy	4.84	121	25
		3.	Kinesiology	2.96	74	24
		4,	Neurology	.87	21	10
		5.	Physiology	3.96	99	25
		6.	Psychology	4.92	123	22
		7,	Sociology	6,40	160	24
			Total	33,28	801	
	B.	The	ory Courses			
	1	1.		1.92	48	25
		2.	Organization and			1
			Administration	1.73	44	21
		3.	Orthopedics	2.04	51	25
		4.	Tuberculosis & Pediatrics	1.88	47	
		5.	Psychiatry	1.78	44	24

TABLE X -- Continued

Subjects	Average Number of Credits Required	Total Number of Credits Required	Number of Schools
6. General Medicine and Surgery 7. Rehabilitation 8. Pre-Clinical Training	1.66 1.76 1.37	44	24 18 14
Total	14.12	353	4.4
C. Clinical Subjects 1. Orthopedics 2. General Medicine and Surgery 3. Pediatrics 4. Psychiatry 5. Tuberculosis 6. Neurology Total	1.68 1.72 .94 1.64 .68 .96	43 23.5 41 16.5 24	23
II. Technical Subjects A. Art  1. General Art 2. Geramics 3. Clothing 4. Design 5. General Crafts 6. Jewelry 7. Leather 8. Metal 9. Weaving 10. Wood 11. Printing	1.84 1.72 1.56 3.48 5.78 .46 .82 1.30 2.78 2.88 1.04	43 39 87 143.5 11.5 20.5 32.5 69 72	10 15
Total	20,20	505	* * .

TABLE X -- Continued

	and the second				
		Subjects	Average Number of Credits Offered	Total Number of Credits Offered	Number of Schools
	B.	Education  1. Miscellaneous Education  2. Abnormal Psychology  3. Child Psychology  4. Mental Hygiene  5. Home Economics  6. Library Science	1.88 1.60 2.64 .84 .75	47 40 66 21 18 4.5	7 13 19 8 2
		Total	10.28	196.5	••
	C.	Recreation 1. Drama 2. Gardening 3. Physical Education 4. Music 5. Speech 6. General Recreation  Total	* * * .88 1.08	2 8 7 4 22 26 71	2 4 3 8 6 14
III.	Cl1	nical Training	***	144	25

"Too small a number to show an appreciable average.

The summarization of this study gives a clearer understanding of occupational therapy and its needs. With this appreciation of occupational therapy and the cognizance of its needs, the following recommendations are presented.

# Recommendations

With this study as a basis, the following recommendations are made to any college or university that desires to

establish an accredited school of occupational therapy as a part of its regular curriculum.

First, a college or university wishing to start such a department should first comply with the "Essentials for an Acceptable School of Occupational Therapy" of the American Medical Association, Council on Medical Education and Hospitals and then ask the American Occupational Therapy Association to accredit the school.

Second, the establishment of such a department should be encouraged in the state-supported, coeducational institution in the western half of the nation. If it is at all possible, the department should be in close contact with a near-by medical school. The basis for this is derived from the trends discovered in this study as reported in Chapter III.

Third, using this study as a basis, it is recommended that the suggested curriculum for training future occupational therapy students follow the course as shown below.

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# Sophomore Year

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Clinical Training in five areas. . . . . 9 months
With the suggested curriculum as shown above, there are
a total of 124 semester hours required by the majority of the
colleges and universities for a bachelor's degree. With the
nine months superimposed on the 124 semester hours, the student should not only be qualified for the National Registration Examination of the American Occupational Therapy Association but also should be given an Occupational Therapy
Certificate by the school giving the degree. As a suggested
minor for an Occupational Therapy major, the student should
be permitted to select from the following: sociology, education, music, art, industrial arts, speech, or one of the
biological sciences.

It is anticipated that this study will be a help to some institution of higher learning that desires to assist in training prospective occupational therapists.

### APPENDIX

Accredited colleges and universities offering degree courses in occupational therapy are as follows:

- 1. Boston School of Occupational Therapy, Affiliated with Tufts College, 7 Harcourt Street, Boston 16, Massachusetts.
- 2. Colorado Agricultural and Mechanical College, School of Home Economics, Fort Collins, Colorado.
- Columbia University, College of Physicians and Surgeons,
   630 West 168th Street, New York, New York.
- 4. Iowa, State University of, College of Liberal Arts and College of Medicine, Iowa City, Iowa.
- 5. Kalamazoo School of Occupational Therapy, Western Michigan College of Education, Kalamazoo 45, Michigan.
- \*6. Kansas, University of, Lawrence, Kansas.
  - 7. Michigan State Normal College, Ypsilanti, Michigan.
  - 8. Mills College, Oakland 13, California.
- \*9. Milwaukee-Downer College, 2512 East Hartford Avenue, Milwaukee 11, Wisconsin.
- 10. Minnesota, University of, School of Medicine, Minneapolis, Minnesota.
- \*11. Mount Mary College, Milwaukee 10, Wisconsin.
  - 12. New Hampshire, University of, College of Liberal Arts, Durham, New Hampshire.

- 13. New York University, School of Education, Washington Square, New York 3, New York.
- 14. Ohio State University, College of Education, Columbus, Ohio.
- 15. Pennsylvania, University of, School of Auxiliary Medical Services, Philadelphia School of Occupational Therapy, 419 South 19th Street, Philadelphia 46, Pennsylvania.
- 16. Puget Sound, College of, Tacoma 6, Washington.
- 17. Richmond Professional Institute of the College of William and Mary, Richmond 20, Virginia.
- #18. Saint Catherine, The College of, St. Paul 1, Minnesota.
  - 19. San Jose State College, San Jose 14, California.
  - 20. Southern California, University of, College of Letters, Arts and Sciences, Box 274, Los Angeles 7, California.
- \*21. Texas State College for Women, Denton, Texas.
- 22. University of Illinois, College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.
  - 23. Washington University, School of Medicine, 4567 Scott
    Avenue, St. Louis 10, Missouri.
  - 24. Wayne University, College of Liberal Arts and College of Education, 1420 St. Antoine, Detroit 26, Michigan.
  - 25. Wisconsin, University of, School of Medicine, 1300 University Avenue, Madison 6, Wisconsin.

#Admit women only.

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