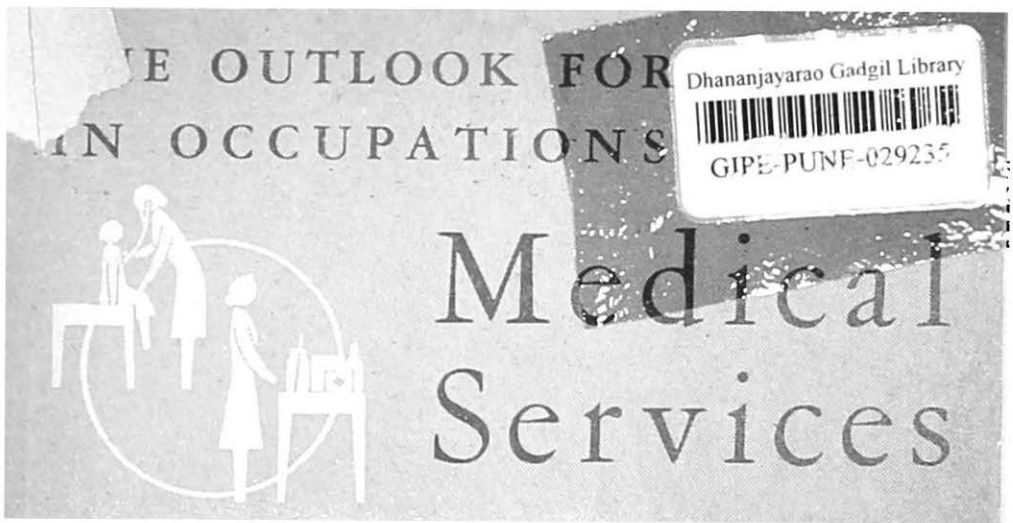


PHYSICAL THERAPISTS



Physical Therapists

Bulletin 203, Number 1

UNITED STATES DEPARTMENT OF LABOR • WOMEN'S BUREAU

FRANCES PERKINS, Secretary

FRIEDA S. MILLER, Director

THE OUTLOOK FOR WOMEN IN OCCUPATIONS IN THE MEDICAL SERVICES

This pamphlet is one of a series prepared by the Women's Bureau to present the post-war outlook for women in particular occupational fields. Many of the 13 million women who were working before the war, as well as some of the 5 million who have joined them since, must continue to support themselves and their many dependents. Like their younger sisters in schools and colleges, they are confused by the sometimes glowing and sometimes dark predictions regarding their future opportunity for employment. They want the facts.

Many monographs are available that describe an occupation at a particular time in its pre-war or wartime setting. But no detailed studies have been published that show the considerable changes that have taken place during the war and the effect of these changes on the post-war supply of and demand for women in particular occupational fields. This pamphlet presents such a dynamic study as distinct from a static description. It discusses the pre-war situation, the wartime changes, and the post-war outlook for women in one of the occupations in the field of medical services, in which women in 1940 composed almost two-thirds of the workers.

Because of the pressing demand for this type of information, some of the occupational discussions in this field are being issued separately as they are completed. An over-all pamphlet will coordinate the series and discuss the general trends affecting the many women employed in these services so important to the Nation whether at peace or at war.

LETTER OF TRANSMITTAL

U. S. DEPARTMENT OF LABOR,
WOMEN'S BUREAU,
Washington, November 20, 1944.

MADAM: I have the honor of transmitting a summary of the outlook for women as physical therapists, an occupation in which they are serving during the war and will continue to serve in the years to come. This report presents the pre-war situation of women in this type of work, reviews the wartime changes, and discusses the future outlook as it can be projected from the experiences of the past and the present.

The study is one of a series prepared by Marguerite Wykoff Zapoleon with the assistance of Elsie Katcher of the Bureau's Research Division. I wish to express my appreciation to the many persons who have contributed to this bulletin by what they have written or said. To those listed on the opposite page, who read all or part of the manuscript or contributed considerably to its content, special acknowledgment is made.

Respectfully submitted.

FRIEDA S. MILLER, *Director.*

HON. FRANCES PERKINS,
Secretary of Labor.

Representatives of Organizations and Agencies Whose Special Assistance Is Gratefully Acknowledged

Miss Alice L. Baker, Physiotherapy Supervisor, Veterans' Administration.
Lt. (j. g.) Lois Brownell, W-V (s) (h), U. S. N. R.

Mr. Howard A. Carter, Secretary, Council on Physical Therapy, American Medical Association.

Dr. Paul B. Cornely, Head, Department of Bacteriology, Preventive Medicine and Public Health, Howard University School of Medicine.

Dr. John S. Coulter, Advisory Council, American Physiotherapy Association.

Miss Mildred Elson, Executive Secretary, American Physiotherapy Association.

Miss Hazel E. Furscott, Chairman, Committee on Public Relations, American Physiotherapy Association.

Dr. Ruth Jackson, Sr. Medical Officer, U. S. Civil Service Commission.

Dr. Frank H. Krusen, Director, Baruch Committee on Physical Medicine.

Captain Howard H. Montgomery, Medical Corps, U. S. Navy.

Miss Florence L. Phenix, Special Nursing Consultant to Services for Crippled Children, Children's Bureau, U. S. Department of Labor.

Miss Marion G. Smith, Registrar, American Registry of Physical Therapy Technicians.

Major Emma E. Vogel, Director, Physical Therapists, Office of the Surgeon General, War Department.

Dr. Olin West, Secretary and General Manager, American Medical Association.



Courtesy War Department

Physical therapist in an Army hospital giving therapeutic exercises to an officer burned in North Africa when his plane caught fire.

CONTENTS

| | Page |
|--|------|
| Letter of Transmittal..... | IV |
| Acknowledgments..... | V |
| Definitions of Physical Therapist and Physical Therapy..... | VIII |
| Pre-war Number and Distribution of Physical Therapists..... | 1 |
| Wartime Changes..... | 2 |
| Increasing the Supply Through Training..... | 2 |
| Training Volunteer Assistants..... | 4 |
| Earnings, Hours, and Advancement..... | 4 |
| Opportunities for Women With Special Employment Problems..... | 5 |
| Post-war Outlook..... | 5 |
| Appendix A. | |
| I. Minimum Requirements for Entrance to a School for Training Physical Therapists Approved by the American Medical Association..... | 8 |
| II. Minimum Requirements for Completion of Training in a School for Physical Therapists Approved by the American Medical Association..... | 9 |
| III. Requirements for Registration as a Physical Therapy Technician by the American Registry of Physical Therapy Technicians..... | 9 |
| IV. Requirements for Active Membership in the American Physiotherapy Association..... | 9 |
| V. Principal Requirements for Trainee and Beginning Federal Civil Service Positions in Physical Therapy..... | 10 |
| VI. Minimum Requirements for Appointment as a Physical Therapist in the Medical Department of the Army With the Pay and Allowance of a Second Lieutenant Without Dependents..... | 12 |
| Appendix B. | |
| Approved Schools for Physical Therapy Technicians..... | 12 |
| Appendix C. | |
| Sources to Which Reference Is Made in the Text and Other Selected References..... | 13 |
| Illustrations: | |
| Physical therapist in an Army hospital giving therapeutic exercises to an officer..... | VI |
| Physical therapist giving hydrotherapy to a crippled child..... | 7 |

Physical Therapist as Defined in the Dictionary of Occupational Titles (1) ¹

Physical Therapist; physiotherapist (medical ser.) 0-52.22. Treats disorders, such as fractures, sprains, nervous diseases, and heart trouble according to patient's needs or as prescribed by a physician, rendering treatments, encompassing all of the physical therapeutic arts; gives exercises to patients designed to correct muscle ailments and deficiencies; administers massages and performs other body manipulations, ref. Masseur; artificial sun-ray treatments, ref. Heliotherapist; ultraviolet or infrared ray treatments, ref. Electrotherapist; therapeutic baths and other water treatments, ref. Hydrotherapist. May use vibrating machine or other mechanical devices for therapeutic purposes, ref. Mechanotherapist.

Physical Therapy as Defined by the American Physiotherapy Association (2)

The treatment of disability, injury, and disease, by non-medicinal means comprising the use of massage, exercise, and the physical, chemical, and other properties of heat, light, water, and electricity (except Roentgen Rays, Radium, and Electrosurgery).

¹ References in parentheses throughout this report are to Appendix C—"Sources To Which Reference Is Made in the Text," p. 13.

OUTLOOK FOR WOMEN AS PHYSICAL THERAPISTS

In a relatively new occupation, under the direction of physicians, qualified women are in great demand to ply an old art, that of treating physical ailments with heat, light, water, exercise, and other physical means. Great strides have been made in the development of techniques and of modern equipment since the First World War, when women were employed by the Army to give exercise, heat, massage, and other treatments to those wounded in battle. Today, in one of the large military general hospitals, Walter Reed, a fifth of all patients are referred to the department of physical therapy. At one of the great civilian medical centers, the Mayo Clinic, approximately one-twelfth of those admitted are directed to the physical therapy section (3).

That even greater progress is likely to be made in the years to come is indicated by the recent Baruch gift for research and the specialized training of physicians in the field of physical medicine. With the exception of the physicians who recommend and supervise the treatments given, few men are engaged in the administering of therapeutic treatment. More than 90 percent of physical therapists are women.

Pre-War Number and Distribution of Physical Therapists

More numerous than occupational therapists,² but considerably fewer than medical laboratory technicians,² physical therapists in approved hospitals before the war numbered some 2,500 on full time and 600 on part time (4). There is no record of the additional number who were employed in physicians' offices or elsewhere, but the American Registry of Physical Therapy Technicians estimates the pre-war number of physical therapists at 3,100, of whom about half were registered. Fewer than 50 of those registered were men. (See Appendix A, III, for requirements for registration.)

Most of these persons work in a physical-therapy department of a hospital. But some are employed by orthopedic surgeons or in public health or social-service agencies serving crippled children, injured industrial workers, and others who need physical-therapy treatments (5). Those employed in hospitals usually have access to a wider variety of equipment and tend to be less specialized than those working with a particular physician or agency.

² One of the medical service groups to be covered in the present series.

Before the present war, approximately 150 women a year were graduated from schools approved for training physical-therapy technicians by the American Medical Association. (See Appendix B for list of approved schools and Appendix A for requirements for entrance and graduation.) Since the occupation is a young one, withdrawals because of death or retirement are relatively few, probably less than 1 percent a year. Those for marriage are greater. The net annual increase in the number engaged in the occupation before the war was approximately 125 to 130 persons.

Wartime Changes

The war suddenly increased the demand for physical therapists in military installations and created a shortage of services available to civilians. The Subcommittee on Physical Therapy of the National Research Council in 1942 estimated the immediate demand for additional personnel in this field at 1,154, composed of 778 for the Army Medical Corps, 292 for civilian hospitals, 70 for Veterans' Administration hospitals, and 14 for the United States Public Health Service. Using these figures and estimating additional wartime needs in these and civilian hospitals and agencies, Dr. John S. Coulter and Howard A. Carter (5) concluded that 6,076 physical therapists would be needed during the war. They pointed out, however, that this need was based on a medical rather than an economic concept and did not imply that the demand necessarily would become effective through the financing of all these positions.

Later, these estimates appeared to be conservative. In 1944 the Army's need for physical therapists was still acute. The Civil Service Commission, faced with calls from the Veterans' Administration and the United States Public Health Service, as well as with calls for trainee positions in Army hospitals, was urging all qualified women to apply for its examinations for the student, apprentice, and junior grades as well as for the full grade of physiotherapy aide. (See Appendix A, V, for minimum requirements.)

Urgent additional needs were reported by the American Medical Association in spite of the fact that physical therapists in registered hospitals in 1943 numbered more than 2,900 full time and 700 part time, having increased by 16 percent and 19 percent, respectively, over 1941 (4). The number of those registered reached 2,100 early in 1944, about equaling the membership in the American Physiotherapy Association, which had grown from 1,614 the year before. (See Appendix A, IV, for requirements for active membership.)

Increasing the Supply Through Training.

A number of new training centers for physical therapists were opened to meet the increasing demand. By the spring of 1944, approved schools numbered 27. Before Pearl Harbor there were only 16 such schools, 3

more than the 13 that appeared on the first list published by the American Medical Association in 1936 (6). From the regular courses offered in approved schools 190 students were graduated in 1943, 23 percent more than the 154 who finished their training in 1941. In addition, a 6-month emergency course approved for training physical therapists for work in Army hospitals was well under way, and in 1943, 235 physical therapists were trained in 17 of the schools under this new program (7). The Navy has trained enlisted men and women in its Hospital Corps as assistants to conduct physical-therapy treatments under the supervision of a physical therapist or a medical officer. This training is not designed to qualify these personnel for registration as physical therapists but to meet Navy needs.

In spite of these increases, the estimated needs of the Army and Navy for trained physical-therapy personnel were over twice the number supplied by the schools. Those graduating in 1944 probably will number 719, almost 100 less than the maximum capacity of the schools and still far short of the needs for military, veterans, and rehabilitation services. The American Medical Association in 1944 urged "universities, medical schools, colleges, or hospitals, having suitable facilities in physical therapy, to consider the establishment of acceptable programs in this field" (6). In October 1943, the Subcommittee on Physical Therapy of the National Research Council sent letters to schools of physical education for women, urging their graduates to consider entering an approved school for physical-therapy technicians. Training facilities were thought adequate but more students were needed (8).

Even before the war, a number of scholarships and loan funds were made available for training in physical therapy through the National Foundation for Infantile Paralysis, the Kellogg Foundation, and the Rosenberg Foundation. The American Physiotherapy Association, the National Organization for Public Health Nursing, and the Kellogg Foundation handled applications from those interested (9).

Since 1922, training in Army hospitals has been available to selected graduates of a school of physical education or to college graduates with a major in physical education. Since 1938 the Army has made its selections of those who are to receive this training from lists prepared by the United States Civil Service Commission on the basis of its examinations for student physiotherapy aide.

In October 1943, the Medical Department of the Army made training courses in physical therapy available to certain enlisted members of the Women's Army Corps who could meet the minimum educational requirement of 2 years of college with emphasis on the biological and natural sciences, or who had completed an approved course in physical education. In addition, certain other requirements are prescribed. On the satisfactory completion of a 6-month course in physical therapy, these students are assigned to general hospitals for a 3-month period of apprenticeship.

Following the satisfactory completion of this apprenticeship, these enlisted women who are otherwise qualified are eligible for release from the Women's Army Corps in order to accept a commission as Medical Department physical therapist in the grade of second lieutenant. In September 1943, authority was established for the enlistment of women in the Women's Army Corps for the sole purpose of taking physical-therapy training. Credentials are reviewed in the office of the Surgeon General, prior to enlistment so that applicants may know before completing final enlistment whether or not they meet the requirements for this training (10). Note.—This program discontinued in December 1944.

Limited scholarships in approved emergency courses for women promising to enter Army service have been offered by Pi Beta Phi Sorority. Three civilian training schools (the State University of Iowa Medical School, the Cleveland Clinic Foundation Hospital, and the Mayo Clinic) charge no tuition for the regular curriculum, and two civilian schools make no charge for the emergency course. Tuition fees average \$212 for the regular and \$132 for the emergency curriculum. The most common tuition charge is the same for both courses—\$200 (6).

Training Volunteer Assistants.

The use of volunteer assistants to relieve the civilian shortage has not been so prevalent in this occupation as in nursing, but was first undertaken in Chicago in 1944. Following a syllabus worked out by the American Physiotherapy Association, 10 volunteers were selected and trained by the American Women's Voluntary Services to work as helpers in civilian hospital physical-therapy departments. As volunteers they assist physical therapists with such duties as record keeping, the feeding and recreation of children, escorting patients to and from the department, and observing patients during diathermy.

Earnings, Hours, and Advancement

Before the wartime pinch was felt, \$1,500 a year without an additional allowance for maintenance was considered by physical therapists as a "reasonable minimum beginning salary for graduates of approved schools." The average monthly salary for physical-therapy technicians as reported by 297 hospitals in 1942 was \$124 (11), or approximately \$1,500 a year. This included an estimate of the fair cash value of maintenance where supplied. Salaries tended to be higher in the western States than elsewhere (11). It is believed, however, that since 1942 salaries have risen by about a third.

The Civil Service salary for full-grade physiotherapy aides who have graduated from approved schools is \$1,800, and the Army, in 1944, is paying \$150 a month (\$1,800 a year) plus quarters and subsistence and uniform allowances to those whom it commissions as second lieutenants. According to the American Physiotherapy Association, graduates of

approved schools in 1944 start at \$150 to \$160 a month, or \$1,800 to \$1,920 a year. Except for small annual increases, advancement in salary is mainly through the addition of supervisory or instructional duties. Salaries in this type of assignment range upward to \$4,000 (12).

Hours are similar to those of nurses and vary according to the institution, physician's office, or agency in which the therapist is employed. Sunday, holiday duty, and night work are more frequent in institutional work, but the physical therapist, like the physician who directs her, is "on call." Some of the work does not lend itself to scheduling.

Opportunities for Women With Special Employment Problems

Much of the work of the physical therapist is strenuous. Women who are strong and active, therefore, are preferred. Approved schools seldom admit a woman over 35 years of age. Students training for this work in the past have averaged about 28 years of age; many of them have had experience as nurses or physical-education directors. In the present emergency, women considerably younger are being encouraged to take training. On the other hand, older women with physical-therapy experience have been urged to return to practice. Because the techniques and equipment in this field are improving constantly, refresher courses usually are needed by those whose training or experience is not recent.

Opportunity for older women is confined chiefly to those who are experienced and lies largely in administrative, public health, teaching, research, or other posts not involving the more or less continuous treatment of patients. A high percentage of physical therapists marry without experiencing any handicap in their work because of their marital status, according to the secretary of the Registry.

There are no special civilian training facilities for Negro women who wish to prepare for work as physical therapists, but qualified Negroes are admitted to training schools connected with State universities and to the three approved training centers in the city of New York. Only three Negroes are registered as physical therapists, though there is a demand for physical-therapy services in Negro medical centers.

Few handicapped women find outlets in this field, since stamina and the use of all one's faculties are necessary for most tasks.

Post-War Outlook

Will the post-war demand for physical therapists be great enough to absorb the increasing supply necessary to a wartime emergency? As far as these needs can be predicted, the answer seems to be "yes".

Even during the depression, according to the American Registry of Physical Therapy Technicians, the demand for physical therapists was always greater than the supply, though the salaries and working conditions tended

to deteriorate with the general economic situation. The additional numbers now being trained will be absorbed for several years to come by the need in military and in veterans' hospitals for the treatment of those injured in this war. Many of these recently trained therapists, being young, are likely to marry and retire fully or partially from practice after only a few years of service. The occupation also is becoming old enough so that the rate of withdrawal, affected by death and age, will be greater than in the past. The post-war supply, therefore, is not likely to be so large as the authorities now confronted with the problem of increasing the number of therapists would like to see it.

Much of the net additional supply can be absorbed by continuing veterans' needs. All veterans' hospitals have a physical-therapy department, and in April 1944 there were 320 physical-therapy positions in veterans' facilities. The approved average ratio of physical-therapy personnel to patients is 1 technician to 100 patients in veterans' general medical and tuberculosis hospitals and 1 to 200 in neuropsychiatric hospitals. A marked increase is expected in the number of veterans who need treatment but do not require hospitalization. They will be given physical-therapy treatments as out-patients (13).

But civilian demands likewise are growing. Industrial injuries, increasing with wartime production, are creating both temporary and long-time needs for this type of treatment. "Insurance statistics have shown that adequate physical therapy reduces the period of disability and puts a man back to work without the handicap of stiff joints and weakened muscles, thereby not only rehabilitating the workman but saving industry the costs of compensation for longer or complete disability" (14). As techniques and equipment continue their development, more physicians will recommend physical therapy for patients. Especially is this likely to be true of those returning from military service, where they have seen the best and most modern therapy equipment and practices. More and more orthopedic physicians, for example, are employing physical therapists to supplement their work. The impetus to research and training in physical medicine derived from Mr. Baruch's gift in honor of his father, a hydrotherapist, will probably accelerate this trend by acquainting an increasing number of physicians with the possibilities that lie in the application of physical treatments (15).

The expanding civilian rehabilitation and crippled-children programs, in which States are aided by Federal funds, also have encouraged the use of physical therapy in the rehabilitation of the adults and the children served. The clinical and laboratory research of the National Foundation for Infantile Paralysis has found that prompt physical-therapy treatment is of great value in poliomyelitis. The demand for technicians to treat cases early



Courtesy Children's Bureau U. S. Department of Labor

Physical therapist giving hydrotherapy to a crippled child.

and in epidemic areas accentuated the acute shortage of physical therapists in the summer of 1944.

These are the special influences that are tending to increase the need for physical therapy in addition to those factors augmenting the general demand for medical care, including physical therapy. They promise an interesting future in the post-war period for the young woman who is healthy, emotionally mature, interested in science (especially in biology and physics), and has acquired or will acquire a college background in physical education or in the biological sciences as a basis for or combined with her physical-therapy courses in an approved school. On their return from military service, some of the nurses trained under the Cadet Nurse Corps program may find training in this field a fitting complement to their earlier preparation, especially if they have been interested in the massage and treatment phases of their nursing duties.

APPENDIX A

I. Minimum Requirements for Entrance to a School for Training Physical Therapists Approved by the American Medical Association

Pre-War

For standard course: Graduation from an accredited school of nursing *or* graduation from an accredited school of physical education *or* 2 years or 60 semester hours of college, including courses in physics and biology. (Courses in general physics, chemistry, and biology recommended.) Good health (physical examination). Six out of 16 schools required more than 2 years of college; others gave preference to the college graduate or registered nurse.

For the bachelor's-degree courses offered in 4 of the schools or for the 3-year diploma course offered in 2 schools, high-school graduation was required.

Wartime Changes

For standard course and for emergency course for civilians: The same requirements except that physics is a recommended rather than required subject for the 2-year college candidates, who must offer courses in "biology and other sciences." Only 4 out of the 27 approved schools require more than 2 years of college for entrance.

For emergency training courses in Army hospitals: Under 38 years of age. No dependent children under 14. Pass physical examination. Four years of college with emphasis on physical education.

No change.

II. Minimum Requirements for Completion of Training in a School for Physical Therapists Approved by the American Medical Association

Pre-War

Completion of 1,200 clock hours of training (usually in 1 year and in not less than 9 months) covering: Anatomy, pathology, physiology; psychology; electrotherapy, hydrotherapy, massage, therapeutic exercise; physical therapy as applied to medicine, neurology, orthopedics, surgery; ethics and administration; clinical practice.

Wartime Changes

No change in minimum requirements for standard course except that physics "correlated with other subjects" and radiation therapy (except X-ray and radium therapy) also are specified.

In 1941 an emergency course of 6 months, including 800 hours of theory and laboratory work and 200 hours of practice, followed by an apprentice period of 6 months in an Army hospital, was approved for those who were to work in Army hospitals.

III. Requirements for Registration as a Physical Therapy Technician by the American Registry of Physical Therapy Technicians

Pre-War

Graduation from an approved school of physical therapy, plus an examination.

Wartime Changes

Completion of a 6-month approved emergency course, followed by 6 months' experience in an Army hospital also is acceptable.

IV. Requirements for Active Membership in the American Physiotherapy Association

Pre-War

At least 1 year's practice in physiotherapy within 2 years of graduation from an approved course (1) not less than 3 years in length or (2) not less than 9 months in length following graduation from a school of physical education or a school of nursing, or completion of 60 college semester hours, 26 of which shall include physics, chemistry, and biological sciences.

Must work only under medical supervision or direction and must not advertise.

Wartime Changes

No change, except that completion of a 6-month approved emergency course, followed by 6 months' experience in an Army hospital, also is acceptable.

V. Principal Requirements for Trainee and Beginning Federal Civil Service Positions in Physical Therapy

Pre-War

- (1) For Student Physical Therapy Aide (\$420 a year basic salary with deduction for quarters and subsistence):
 - (a) Graduation from school of physical education or from college with major in physical education (full 4-year course).
 - (b) Not over 28.
 - (c) Not less than 62 inches in height and not less than 110 pounds in weight.
 - (d) Physically fit. Physical examination required.
- (2) For Apprentice Physical Therapy Aide:
No examination for this grade was in existence before the war emergency.
- (3) For Junior Physiotherapy Aide (\$1,620 a year):

Wartime Changes

- (1) Until Nov. 1, 1944, the basic salary was the same, but wartime lengthening of hours brought the actual salary to \$525. Thereafter, the basic salary became \$1,440, the actual salary \$1,752.
 - (a) No change except that a major in the biological sciences is also acceptable.
 - (b) Not over 38.
 - (c) Not less than 60 inches in height and not less than 105 pounds in weight.
 - (d) No change.
- (2) Until Nov. 1, 1944, the basic salary was \$1,440, but under wartime hours the actual salary was \$1,752. Thereafter, the basic salary was \$1,620, the actual salary \$1,970.
 - (a) Completion of 5 months successful service as a Student Physical Therapy Aide in an Army hospital, or completion of a full emergency course (6 months) in physical therapy approved by the American Medical Association, or being within 9 months of completing such a course.
 - (b) Not over 40.
 - (c) Not less than 60 inches in height and not less than 105 pounds in weight.
 - (d) Physical examination required.
- (3) The basic salary is the same, but the wartime lengthening of hours brings the actual salary to \$1,970.

Pre-War

- (a) For training in general hospitals under Veterans' Administration: Completion of 4-year college course with major in physical education, or within 9 months of such completion. For a maximum of 2 years, may substitute for each year of study 6 months' experience as physiotherapy technician in hospital or sanitarium, or 1 year of training and experience under physician specializing in physiotherapy.
- (b) For training in neuropsychiatric hospitals under Veterans' Administration: Completion of 4 years of high school (or its equivalent on a test) plus completion of a physiotherapy course offered to hospital attendants in a neuropsychiatric hospital of the Veterans' Administration, and also 2 years of experience in administering physiotherapy as a physiotherapy attendant in a Veterans' Administration Hospital.
- (c) Not over 45.
- (d) Not less than 62 in. nor more than 70 in. in height and not less than 110 lbs. in weight.
- (e) Sound physical health.
- (4) For Physiotherapy Aide (\$1,800 a year):
 - (a) Graduation from the full regular course of an approved school of physiotherapy (or within 9 months of graduation) or completion of a course as Apprentice Physiotherapy

Wartime Changes

- (a) No change up to November 1944, when the Civil Service Commission was considering changes in the educational requirements.
- (b) No change.
- (c) No maximum age limit.
- (d) No height or weight specified.
- (e) No change.
- (4) The basic salary is the same, but the wartime lengthening of hours brings the actual salary to \$2,190.
 - (a) No change up to November 1944, when the Civil Service Commission was considering changes in the educational requirements.

Pre-War

Aide in an Army Hospital or 18 months' experience as a Physiotherapy Pupil Aide or a Junior Physiotherapy Aide in a Veterans' Administration facility.

- (b) Same physical and age requirements as those for Junior Physiotherapy Aide.

Wartime Changes

- (b) Same changes in age requirements as for Junior Physiotherapy Aide.

VI. Minimum Requirements for Appointment as a Physical Therapist in the Medical Department of the Army (with the pay and allowance of a second lieutenant without dependents, i. e., \$1,800 plus 70 cents a day subsistence allowance and quarters).

Pre-War

Before the war, Army physical-therapy aides were recruited through Civil Service. (See above examinations.) Relative rank was not given until December 1942 and full military rank was granted June 22, 1944, including all rights and privileges of an officer in the Army.

Wartime Changes

Less than 45 years of age; 2 years of college training with emphasis on physical education or biological courses, or registered nurse; and in either case plus an approved course in physical therapy.
Not less than 60 inches in height and not less than 105 pounds in weight. Army physical examination.
No dependents under 14.

APPENDIX B

Schools for Physical Therapy Technicians Approved by Council on Medical Education and Hospitals of American Medical Association September 1944

Civilian Hospitals

*Children's Hospital,
Los Angeles, Calif.
College of Medical Evangelists,
Los Angeles, Calif.
University of California Hospital,
San Francisco, Calif.
*Stanford University,
Stanford University, Calif.
*Northwestern University Medical
School,
Chicago, Ill.

*Harvard Medical School,
Boston, Mass.
*Boston University Sargent College
of Physical Education,
Cambridge, Mass.
*University of Minnesota,
Minneapolis, Minn.
*Mayo Clinic,
Rochester, Minn.
Barnes Hospital,
St. Louis, Mo.

| | |
|--|--|
| State University of Iowa Medical School, Iowa City, Iowa. | *St. Louis University School of Nursing, St. Louis, Mo. |
| *Bouvé-Boston School of Physical Education, Boston, Mass. | Columbia University, New York, N. Y. *Hospital for Special Surgery, New York, N. Y. |
| New York University School of Education, New York, N. Y. | Graduate Hospital of the University of Pennsylvania, Philadelphia, Pa. |
| Duke Hospital, Durham, N. C. | University of Texas School of Medicine, Galveston, Tex. |
| Cleveland Clinic Foundation Hospital, Cleveland, Ohio. | *Richmond Professional Institute, Richmond, Va. |
| *D. T. Watson School of Physiotherapy, Leetsdale, Pa. | *University of Wisconsin Medical School, Madison, Wis. |

Army Hospitals

| | |
|---|--|
| Fitzsimons General Hospital, Denver, Colo. | O'Reilly General Hospital, Springfield, Mo. |
| *Walter Reed General Hospital, Washington, D. C. | Brooke General Hospital, San Antonio, Tex. |

*Approved before Pearl Harbor.

Note.—In addition to the Army hospitals listed above that have approved schools, the following Army hospitals have courses just established in 1943-44:

| | |
|--|--|
| Lawson General Hospital, Atlanta, Ga. | Bushnell General Hospital, Brigham City, Utah. |
| Percy Jones General Hospital, Battle Creek, Mich. | Ashford General Hospital, White Sulphur Springs, W. Va. |

APPENDIX C

Sources To Which Reference Is Made in the Text

- (1) U. S. War Manpower Commission, Bureau of Manpower Utilization, Division of Occupational Analysis and Manning Tables. Dictionary of Occupational Titles, Supplement, Edition II, July 1943. Washington, U. S. Government Printing Office, 1943, p. 227.
- (2) American Physiotherapy Association. Constitution and Bylaws. Chicago, the Association, July 1942, p. 1.
- (3) Krusen, Frank H., and Earl C. Elkins. Teaching of Physical Medicine in Relation to the War Effort. War Medicine, 3:367, April 1943.
- (4) Hospital Service in the United States. Journal of American Medical Association, 124:849, March 25, 1944.
- (5) Coulter, John S., and Howard A. Carter. Need for Physical Therapy Technicians. War Medicine, 2:824-29, September 1942.

- (6) Schools for Physical Therapy Technicians. *Journal of American Medical Association*, 124:918, Mar. 25, 1944.
- (7) Schools for Physical Therapy Technicians. *Journal of American Medical Association*, 118:1136, Mar. 28, 1942, and 124:918, Mar. 25, 1944.
- (8) *See* (3), p. 384.
- (9) American Physiotherapy Association. Available Physical Therapy Scholarships. Chicago, the Association, [1943?]. (Folder.)
- (10) War Department Memorandum W635, dated Aug. 22, 1943, and letter from the Adjutant General dated Sept. 14, 1943.
- (11) 20th Hospital Yearbook. Chicago, Ill., Modern Hospital Publishing Co., 1942, pp. 965, 971.
- (12) Hazenhyer, Ida May. Physical Therapy as a Vocation. *Physiotherapy Review*, Vol. 22, No. 2, Mar.-Apr. 1942.
- (13) Physical Therapy in the Veterans' Administration. Paper presented by Col. Edwin J. Rose for Dr. Charles M. Griffith, Medical Director, Veterans' Administration, at a session of the Eastern Section of the American Congress of Physical Therapy, Naval Hospital, Bethesda, Md., Apr. 8, 1944.
- (14) American Physiotherapy Association. The American Physiotherapy Association Is Organized to Serve. Chicago, the Association, 1944.
- (15) Baruch Committee on Physical Medicine. Report of the Baruch Committee on Physical Medicine. New York, the Committee, 597 Madison Ave., April 1944. 120 pp.

Other Selected References on the Physical Therapist

- American Medical Association. Manual of Physical Therapy. Prepared by the Council on Physical Therapy of the American Medical Association, the Subcommittee on Physical Therapy, and the Committee on Information of the Division of Medical Sciences of the National Research Council. Chicago, Ill., the Association, 535 North Dearborn Street, March 1942. 35 pp.
- American Medical Association. Official Rules of the Council on Physical Therapy of the American Medical Association. Chicago, Ill., the Association, August 1942. 15 pp.
- American Physiotherapy Association. Ideal Pre-Physical Therapy Curriculum Outline. Chicago, Ill., the Association. [No date.]
- American Registry of Physical Therapy Technicians. Chicago 2, Ill., the Registry, 30 North Michigan Ave. 3 pp.
- Archives of Physical Therapy. Official Journal of the American Congress of Physical Therapy. Chicago, Ill., 30 North Michigan Ave.
- Physiotherapy Review. Published bimonthly by the American Physiotherapy Association. Chicago 11, Ill., 720 North Michigan Ave.
- Rice, Betty A. Opportunities for the Physical Therapist. *Occupations*, 22:114-116, November 1943.
- Schools for Physical Therapy Technicians. A list appears annually in one of the March issues of the *Journal of the American Medical Association*.