

Report

on

A Program to Develop Physician's Assistants

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and

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Dr. Barnes Woodhall
Office of the Vice Provost

Dear Dr. Woodhall:

On April 7, 1965, an Ad Hoc Committee was appointed for the purpose of evaluating programs within the Medical Center designed to bring new types of personnel into the health field. This report represents the recommendations of that Committee, regarding the objectives and most effective methods for developing such programs.

The situation which generated the ideas set forth in this report can be stated quite simply: personnel in the health field are too few in number and inadequately trained to meet the demands placed on the medical profession. In our view medical schools and nursing schools, as presently structured, cannot supply sufficient numbers of doctors or career-oriented nurses to meet this demand. Furthermore, no workable solution to this problem can be predicated solely on re-shuffling of the available talent.

The proposal to be outlined calls for the definition of a new member of the health team called a "Physician's Assistant". The physician's assistant is seen as a new category within the structure of the health field designed to provide a career opportunity for men functioning under the direction of doctors and with greater capabilities and growth potential than informally trained technicians. As the title implies these individuals would be trained to assist the doctor in his clinical or research endeavors in such a way as to facilitate better utilization of available physicians and nurses. Graduates of this program are viewed as individuals capable of performing responsibly and reliably certain of the skills currently practiced by doctors, nurses and technicians. In patient care areas the physician's assistant will be able to draw blood, start and regulate IV's, intubate the GI tract, and do other procedures classically performed by the doctor. He will be trained to monitor vital signs, give medications and keep progress records, skills classically performed by nurses. He will also be trained to operate certain diagnostic and therapeutic instruments such as an EKG machine and respirator as well as perform routine laboratory studies, skills usually performed by technicians. The physician's assistant would receive most of his training within a clinical discipline of defined scope in order to develop quality of performance and an understanding of illnesses in the field.

The task then is to provide an educational framework designed to attract career-oriented men and supply them with the skills to function effectively as a physician's assistant. Selection of students and curriculum should reflect this goal. It is important we believe to differentiate this program, and its goals, from previously unsuccessful attempts to develop male nurses. This program calls for intensive training in areas which complement available talents without attempting to replace available talents. Training and salary potential should be consistent with a career in the health field and should reflect the ability of trained assistants to increase the earning power of their employer by an amount appropriate to their projected salary.

I. Selection of Students

The success of this program will depend largely on the quality of participating students. This means a great deal of thought must be directed towards establishing criteria for entrance into the program.

Our intent is to produce career-oriented graduates. Since the long range goals of most females remove them from continued and full time employment in the health field, we anticipate the bulk of the student body will be males. This is not meant to exclude females, for those who can present credentials which would assure the Admissions Committee of proper intent should be considered in the same light as male applicants. An example might be a graduate of a two-year nursing school who seeks admission to a part of the program to better equip herself to function in a special care unit in a community hospital. Our initial recruiting efforts will be directed towards the military corpsmen ranks with the curriculum reflecting this level of student.

Pre-requisites

- 1) A high school degree or its equivalent.
- 2) Completion of an application form.
- 3) Three letters of reference including the high school principal and the last employer or commanding officer.
- 4) High school or junior college academic records.
- 5) An interview at Duke which would be of the extended type and include a personal interview with a doctor and nurse from the faculty of the course and a battery of psychological tests designed to measure motivation, intelligence and reliability. In our view the latter techniques would be helpful in selection and would also provide certain baseline data for later comparisons.

II. The Curriculum*

We feel the objective of this program is to teach excellency in the performance of certain skills and to provide fundamental knowledge necessary for understanding and developing additional skills. This can be accomplished in the allotted time and with students of varied background, if the area in which we develop talents of an individual remains within clearly defined limits. The students should possess an adequate background to broaden their scope of activity with additional years of experience. The curriculum should not attempt to provide a high school graduate with a medical education in two years but should provide the tools for understanding health problems and experience in depth in a limited clinical area.

* See table

The Curriculum*

Months

Course	1	2	3	4	5	6	7-15	16-24
Anatomy & Physiology	X	X						
Metabolism	X	X						
Pathophysiology and Pharmacology			X	X				
Animal Surgery			X	X				
Equipment & Instruments			X	X	X	X		
Visits				X	X	X		
Nursing				X	X	X		
Others		X	X					
Labs							X	X

* See next page for course descriptions

Course Descriptions

1. Anatomy and Physiology. Purpose: To familiarize the student with the location, general anatomic principles and functions of each organ system. Approach: Organ system analysis. Techniques, lectures and demonstrations. Approximately 60 hours recommended.
2. Metabolism. Purpose: To acquaint the student with the concepts of nutrition, energy utilization, hydration, tonicity, electrolyte concentrations and principles of fluid administration. Techniques, lectures and demonstrations. Approximately 60 hours recommended.
3. Pathophysiology and Pharmacology. Purpose: To describe the nature of selected diseases and treatment. Techniques, lectures, slides, movies, autopsy specimens, including lectures concerning essentials of pharmacology. Approximately 60 hours recommended.
4. Animal Surgery. Purpose: To demonstrate in the living animal anatomic and physiologic principles. To teach sterile technique, principles of minor surgery, care of wounds and dressings and standard experimental set-ups. Approximately 48 hours recommended.
5. Equipment and Instruments. Purpose: To acquaint the student with the operation and minor repair techniques for standard instruments including the EKG machine, humidifiers, respirators, etc. Would include instruction in oxygen therapy and practice in taking EKG's in heart station.
6. Visits. Purpose: To expose the student to as many areas of the hospital as possible including the operating room to watch neurosurgical, general and cardiac cases, a dialysis, a hyperbaric treatment, a cardiac catheterization, a delivery, an autopsy and a day in x-ray seeing various diagnostic studies.
7. Nursing. Purpose: To develop basic skills in patient care and broaden their experience through direct patient contact. This would involve a period of instruction in measuring vital signs, charting, giving treatments, etc. followed by supervised practice.
8. Others.
 - a) a course in resuscitation including the recognition of cardio-respiratory arrest and techniques of ventilation and external cardiac massage. These skills will be developed further in special care areas during phase II of the program.
 - b) a course in routine laboratory techniques: how to draw blood, pull a smear, do a hematocrit, etc.
 - c) a brief exposure to general concepts of infectious disease and isolation procedures.

- d) to present accepted rules of hospital etiquette and to make the student aware of the emotional response of patients to illness.
- e) EKG - recognition of arrhythmias and signs of myocardial infarction.

9. Labs. During the last 18 months of the two-year course the student would be assigned to two laboratories or clinical areas for nine months each. These areas would be selected to provide some research experience and a major experience in patient care. Existing or proposed areas might include:

1. Renal dialysis
2. Hyperbaric unit
3. Cardiac Cath lab
4. Cardiac Intensive Care unit
5. Recovery room
6. Clinical Research unit

Programs of instruction for paramedical personnel are already underway in all but one of these areas.

III. Organization and Faculty

This program should operate under the direction of a physician who will be Chairman of the Admissions Committee, and who will organize the course material, coordinate the instruction periods and recommend certification by the Medical Center. This individual should sit with the Paramedical Coordinating Committee of the Medical Center.

An Administrative Director should be appointed to solicit applicants, to sit with the Admissions Committee, to assist the Director and to promote and publicize the program and its graduates to physicians in the state.

The Director should appoint a faculty which would be responsible for providing the general didactic material of phase I. The faculty would come from existing physicians, nurses and paramedical personnel presently on the faculty of the Medical Center.

IV. Certification

The progress of each student will be carefully monitored. His knowledge of the pre-clinical material will be tested at the end of phase I with advancement only when he meets certain agreed upon standards. His progress through phase II will be evaluated by the physicians and nurses in charge of the units to which he is assigned. We would suggest that students who complete the program satisfactorily receive a certificate reading, "Physician's Assistant", from the Duke University Medical Center.

V. Utilization of Students and Graduates

Members of this program should be classified as trainees, or as graduates. As a trainee the individual would be an enrolled member in a course of instruction and he would function as a student under the direction and supervision of the faculty responsible for the course. In instances where the student went to areas of the hospital for instruction outside places of normal participation by the faculty, he would do so with the full cooperation and under the supervision of doctors and nurses in charge of that area. As a graduate, the physician's assistant would be employed by a physician or a group of physicians, or by a department with assignment to a physician. He might be employed as a research assistant, as an assistant in a clinical laboratory or as a patient care assistant in an area of specialized endeavor.

As an assistant in a research laboratory the trained physician's assistant will be capable of setting up research preparations, carrying out experiments, understanding and utilizing the instrumentation involved, and making an intellectual contribution to the project. This individual will have a greater capability and growth potential than the average technician.

As an assistant in the clinical laboratory the graduate will be capable of setting up and carrying out diagnostic studies such as pulmonary function studies, EKG's, phonocardiograms, etc. He will have an understanding of the nature of the illnesses examined in the clinical laboratory and he will exhibit a professional approach to patients undergoing study.

As an assistant in patient care the graduate will be utilized most effectively in specialized areas such as the dialysis unit or the hyperbaric unit. His training will provide him with the capabilities to assist the doctor in procedural aspects of patient care, to perform certain routine nursing procedures and to perform various tests of a general type as well as those unique to the area of endeavor. He will be skilled in the techniques of cardiorespiratory resuscitation.

The graduates of this program will provide the Medical Center with added personnel who might be called upon to supplement available staff on general wards if, in the view of the physician responsible for the ward, their skills would complement the overall operation. Utilization and status of the physician's assistant on general wards would be decided by the appropriate chief of service and nursing supervisor.

The graduates of the physician's assistant program might also be employed by individuals in private practice or groups of physicians in private practice. In this capacity they may assist in history taking, the performance of indicated procedures of a diagnostic or therapeutic nature, and perhaps in certain aspects of home therapy.

VI. Unsolved Problems

This committee has considered certain aspects of the program on which full agreement could not be reached. As Chairman, I wish to include these in the report as matters for your consideration.

1) Miss Clark and others have suggested that this program should be directed towards vocational training as opposed to a professional orientation and that certain spelled out limits should govern policies of utilization within the Medical Center. We all concur with the view that careful supervision of the activities of the trainees is mandatory. On the other hand, many of us feel that a purely vocational approach, would defeat the objectives of the program and we would not produce a career-oriented asset to the health team. Furthermore, since this is an experiment I think we will learn the most if we allow the trainees to develop to their maximal capability under staged and supervised instruction rather than placing arbitrary limits on their activities before we see what they are capable of.

2) Miss Wilson has referred on several occasions to her experiences with corpmen in the dialysis unit where much has been accomplished already. She states that technical aspects of the dialysis procedure and patient care are performed reliably by the corpmen, but judgement has been difficult to teach. We agree that this will be difficult to teach in the "physician's assistant" program, and for this reason we do not propose to train or utilize graduates in areas where supervision is not available.

3) Miss Clark has expressed concern over the impact of such a program on nursing, and the administrative structure of ward units if graduate physicians assistants were utilized in general bed areas. We have wrestled with this problem at each meeting and no general agreement was reached. The program outlined is purposefully directed away from general training and towards areas of special care. In these areas the physician's assistant would operate under the administrative structure of the unit as directed by the physician in charge (i.e. current pattern of operation in dialysis unit). Until the capabilities of a trained physician's assistant can be clearly defined, his potential role and status on general wards cannot be structured. My recommendation, therefore, is that plans for utilization in the areas outlined be incorporated into the curriculum and that other potential uses be considered by representatives from the clinical departments, nursing service and administration when our experience with the initial group warrants this.

The proceedings of this Committee were of great interest to me. I believe the report reflects accurately the enthusiasm of those Committee members who are currently investing time and effort with paramedical personnel, and the healthy restraint of those who are watching these programs with interest. I would like to acknowledge the honest efforts of each Committee member to meet the problem facing us and to make useful proposals and constructive criticism. The minutes of our meetings are available in my file should you want them.

Respectfully submitted

Andrew G. Wallace, M. D.
Chairman