

**EXCERPT FROM:**  
**AN EXPERIMENT IN MAKING THE HOSPITAL**  
**A GRADUATE MEDICAL CENTER\***

A Preliminary Report

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During the past 20 years undergraduate medical education has in general shown notable improvement. The modern medical student receives four years of quality instruction. Graduate education (internship and residency) has also shown improvement but not to the same proportional degree nor so universally as the undergraduate period. In the postgraduate period, educational techniques are not well standardized, and they vary greatly in their effectiveness and probably even more so in the frequency with which physicians utilize them. Basically, undergraduate medical education consists of two components: (1) acquisition of a minimal factual knowledge and technical skill and (2) acquisition of the spirit of service and dedication and the desire for continual self-improvement. Examinations readily measure the first. Once past they give no assurance that the physician will continue to improve nor for that matter whether he might not regress. Too often they represent the last stimulus to improvement for some physicians. Yet the second concept of education more truly determines the ultimate value of the physician to society. However, it is not easy to measure, nor are these qualities easily taught except by precept and example, a situation not as readily set up for postgraduate as for undergraduate education.

Figures 1 and 2 (next page) represent schematic portrayals of this problem. In Figure 1 the vertical lines represent medical knowledge and the horizontal line time. Each year (line A-C) usable medical information increases.

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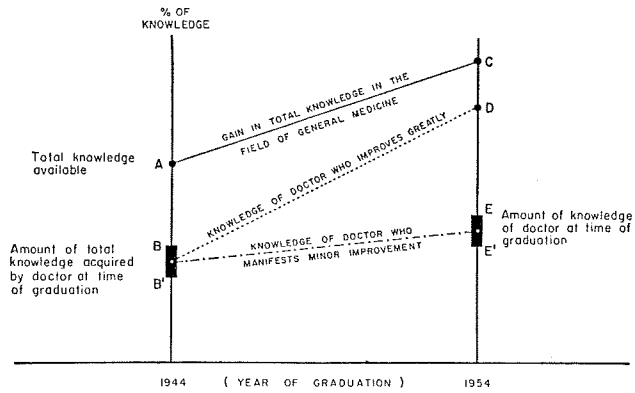


Fig. 1.—Relationship of growth in total medical knowledge and continued improvement by physicians.

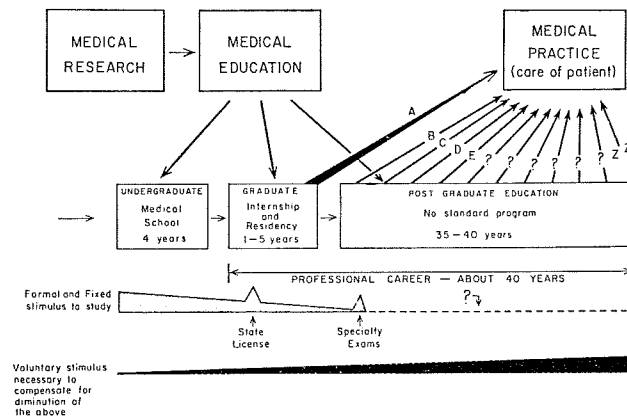


Fig. 2.—Relationships of undergraduate and postgraduate education.

To graduate in 1944 the student must have acquired some proportion of this ( $B-B'$ ). After graduation some physicians increase their knowledge greatly ( $B-D$ ) but always continue to manifest a personal deficit ( $C-D$ ), since no physician can learn everything. All physicians

should understand the psychological significance of this. It means no one should lose face by admitting lack of information on some particular point. The physician who improves not at all or but slightly ( $B-B'-E$ ) will, as time goes on, know proportionally less and less of the ever-increasing total knowledge ( $A-C$ ) and could, if not stimulated to further education, fall below a critical level where he has less factual knowledge than new graduates, who 10 years later (1954) are expected to acquire more new knowledge than was true 10 years before. The new graduate has the advantage that he learns newly accepted facts and ideas for the first time, whereas older physicians must discard old ideas and techniques that have become habit to them and then learn the newer concepts. This is pedagogically more difficult than learning anew. The potential danger of permitting the wider spread ( $D-E$ ) of individual skills of a group of physicians as compared to the narrow band ( $B-B'$ ) at the time of their graduation would seem a major reason for an increased interest in postgraduate education.

Medicine in its broad sense can be broken down into three basic activities (Fig. 2). The first is devoted to increasing knowledge, medical research. The third component is the practice of medicine or care of patients. Fundamentally, the reason for research and development of new facts is to apply them to improvement in patient care or prevention of disease. It is almost impossible for the busy practitioner to evaluate the highly technical basic medical and preclinical scientific research placed on record each year and apply it to his patients. The second activity that links medical research to medical practice is the intermediary role played by medical education. Essentially this is concerned with the transmission of basic information to the undergraduate student, graduate student, and practitioner in an understandable fashion.<sup>1</sup> Medical education should be looked upon as a speciality requiring special skills the same as surgery. The span over which graduate and postgraduate education is needed is tenfold longer than the undergraduate period of four years. The great need is to make the postgraduate education period a lifelong process and equal in quality with the present high standards of undergraduate education. All physicians commence their medical school days under strong fixed stimuli to study that lessen over the years and after graduation often cease except for the state board examinations or their equivalent and the American specialty boards. The ideal is to have such outside stimuli to improve gradually replaced by lifelong voluntary desire.

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1. Jeghers, H.: Vitalizing Medical Education in Hospitals, Hospital Progress 35:60 (Oct.) 1954.