EDUCATION AND TRAINING IN OBSTETRICS AND GYNECOLOGY*

Presidential Address

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THE Fathers of this Society decreed and the By-laws provide that your President shall deliver an address at each Anuual Meeting, probably to afford him an opportunity to express his appreciation of the honor conferred upon him, to ventilate his views anent the scientific or educational aspects of obstetrics and gynecology, or to review the past or forecast the future if he so desires. To be chosen as your President is one of the greatest marks of distinction that can come to anyone within our specialty, but to have been elected during the Diamond Jubilee celebration and then to have the privilege of presiding at the numerical Seventy-fifth Annual Meeting is a compliment that I find difficulty in acknowledging in mere words. This seeming paradox is explained by the fact that the Society did not meet in 1943 because of the travel restrictions imposed by the war.

At the Golden Anniversary meeting in 1926, the President, Dr. Franklin S. Newell, reviewed the advances in obstetrical and gynecological pedagogy during the preceding fifty years, and especially warned against the encroachment of the laboratory branches on the time formerly devoted to clinical teaching in the undergraduate medical schools. He contended then that "medical education should primarily serve the 95 per cent who hope to practice medicine instead of the 5 per cent who hope not to." The medical schools are now graduating men with scientific knowledge far superior to that of twenty-five years ago, but 90 per cent still intend to engage in activities involving some phase of clinical medicine. Speaking of the selection of students for admission to the undergraduate schools, Dr. William S. Middleton, Dean of the University of Wisconsin Medical School, has recently written, "Since the function of the medical school is primarily the production of physicians, in the ideal situation one would leave only a small secondary space, constituting not more than 10 per cent of the elected, for potential research prospects." Medical knowledge and technical skills developed so rapidly during the past twenty-five years that the multiplicity of details is beyond the capacity of any one individual to master, and this in large part accounts for the increased trend toward specialization. A specialist differs from other physicians in education and training, not in intelligence, and should be a doctor first and a specialist second.

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A political philospher has wisely said that it is better to be what you know you are than to try to be what everyone else knows you are not. So, having spent thirty-seven of my forty-five years in practice teaching postgraduate matriculates, trying to make doctors better doctors, as well as supervising residents, and since this is an occasion on which the personal pronoun may be used with propriety, perhaps I may be permitted the privilege of commenting on the evolution of graduate education and training in obstetrics and gynecology during the past fifty years. Personally, I believe that there is a distinct difference between education and training in medicine. To me, education connotes the systematic development of the powers of intellect, whereby the student acquires knowledge from reading and instruction, by observation and by deductive logic, paralleled by a limited amount of supervised practical work. Edward A. Parks has aptly said that medical education is chiefly a matter of osmosis and diffusion. Training, on the other hand, implies the increase of proficiency by a gradually expanding experience and the assumption of responsibility for the care of patients, after repeated and methodical drills in both major and minor procedures, under the direction of a scholarly and practical teacher, until finally it terminates in a capable and well-qualified product. Education is a continuing and endless process affecting the individual's intellectual maturity, whereas training is automatically limited to a definite period of time. The apprentice system of medical education prevailed to a certain extent throughout the nineteenth century, notwithstanding the mushroom growth of formal courses during that era, and I myself had the privilege of "reading medicine" with a preceptor, complementing my medical school attendance. When I graduated in 1906, there were but 2,608 hospitals in the country and only 70 per cent of graduates elected to take internships. Residencies in obstetrics and gynecology were then virtually nonexistent, contrasted with the 2,013 positions now available. Consequently most young men qualified as specialists by completing a rotating internship, doing some practice while apprenticed to a senior obstetrician and gynecologist during the next few years, and perhaps studying abroad. Despite the deficiencies of such a preparation, it did much to broaden one's viewpoint of clinical medicine and inculcate the idea that our problem is always the woman, not her pelvis. In those days most laboratory tests were lacking, syphilis was rampant, pyogenic infections were difficult to control, anesthetics were administered chiefly by amateurs, bacteriology and biochemistry were in their infancy, and endocrinology, blood transfusions, salvarsan, insulin, irradiation therapy, sulfonamides, and antibiotics were all obscured by the curtain of mystery which hides the future. Therefore, efforts to estimate the patient's vital resistance correctly were ineffectual, and both operative obstetrics and abdominal surgery were attended by such a relatively high morbidity and mortality that the survival of the patient was often the criterion of success. Most of us who emerged from those years of long ago now find ourselves the stepchildren of modern medicine, mere clinicians, partly basking in the sunlight reflected by the accomplishments of the younger men in our departments. As one approaches the twilight of his professional career, he becomes inclined

to read more and write less, finding his greatest satisfaction in the progress, productivity, and success of the younger men for whose training he has been partly responsible.

It also seems desirable to distinguish between graduate and postgraduate education. Graduate education embraces the neophyte's uninterrupted institutional work, beginning with his internship, and includes residencies, fellowships, research investigations, or university activities leading to an advanced degree, and these constitute formal training. Postgraduate education, on the other hand, implies refresher or advanced courses, or association with a qualified preceptor, for those who are already in practice, all of which are excellent supplementary measures, but do not necessarily afford actual training. Thus, the majority of the obstetricians and gynecologists of the early years of this century became specialists mainly by means of postgraduate education. However, despite these disadvantages, those of wide experience were shrewd clinicians, dextrous and bold operators, and far from some of the therapeutic nihilists of recent years. They received less formal and ultrascientific tuition than the present generation, but learned more about the humanities of medicine and the treatment of patients rather than their diseases. It is interesting to note that many such men became prominent in the specialty, held professorial chairs in the medical schools, and were pioneers in advocating higher educational standards and the establishment of the residency system of training.

Those who have come under my observation as candidates for instruction can be classified in four groups: the hospital residents, specialists who have had previous residency training, graduate students selected by Foundations for supplemental training, and practicing physicians who had previously not limited their work to obstetrics and gynecology. The latter group of matriculates has always been the largest at the New York University Post-Graduate Medical School, and still is. Admission to highly technical courses in such schools should be restricted to those who have a background of experience in obstetrics, gynecology, and pelvic surgery. It will be noted that gynecology and pelvic surgery are not used as synonymous terms, since only 10 to 20 per cent of gynecological patients, when treated conservatively, should reach the operating table. I believe that courses in operative technique on the cadaver, culdoscopy, endocrinology, vaginal cytology, obstetrical and gynecological pathology, electrotherapy, female cystoscopy, and irradiation in my own institution and elsewhere are valuable as educational measures, but should not be credited as training unless the student is charged with personal responsibility for the solution of major clinical problems. There is a need for short courses for those already practicing, to serve not only as refresher information but also as a means of continuing their education in the latest advances in our field.

There are several factors presently operating to influence the character and duration of a resident's training. The curriculum of the undergraduate schools has become more and more complex and is now surfeited with basic science and fundamentals to such an extent that teaching of the surgical

specialties has necessarily had to be curtailed. Consequently the modern graduate is quite aware of the fact that competency in these fields must be acquired by serving internships and residencies. In fact, the integration of a short preceptorship with the institutional teaching, recently adopted by some fourteen undergraduate schools, would seem to imply a tacit recognition on their part of at least a few defects in the present pedagogic system. A residency cannot produce a mature specialist; it can only provide a medium through which he can derive a basic knowledge on which to develop self-reliance and continued self-education. The opportunities afforded by such positions vary greatly in small hospitals, large hospitals, and university hospitals, and are contingent upon the amount of clinical material, the contributions of the attending staff, and the length of service. Hence every man with an ambition to be recognized eventually as a specialist in obstetrics and gynecology cannot very well disregard the requirements of the American Board of Obstetrics and Gynecology and the American College of Surgeons. These indirect educational controls impose a heavy responsibility on those who are in a position to administer them. Particularly must they be careful that overenthusiastic efforts to elevate standards do not result in unreasonable demands. Elevation of standards is one thing; excessive taxation on a young man's financial resources and time is quite another. The two questions of paramount importance are: how much training should be required for specialization in obstetrics and gynecology, and how long should the length of residency service be in an individual hospital, and what should it include? For the past twenty-two years the Council on Medical Education of the American Medical Association and the American Board of Obstetrics and Gynecology have jointly approved hospitals for training periods of one, two, or three, or more years, depending upon the available facilities and the findings of survey inspections. The present requirements of an internship, followed by a minimum of three years of residency, including both obstetrics and gynecology, in seven years of practice, do not seem unduly exacting. However, this by no means implies that every hospital should offer a three-year service, since the length of a residency and the number of residents in a particular hospital should depend in large part upon the bed capacity and the number of yearly departmental admissions. Municipal and university hospitals with a large number of free beds can always provide adequate clinical material for residency training, but in most of the voluntary institutions the gradual but persistent reduction of free admissions constitutes a real threat to the number of patients that can be assigned to the resident staff. This is due to the ever-widening expansion of voluntary insurance plans, which are converting more and more former ward patients into semiprivate cases, plus the inability of the hospitals themselves to accept charity patients because of the tremendously increased cost of daily maintenance, and the drastic attrition of individual monetary gifts from which they are all suffering. Those of us who have spent our professional lives in large cities with elaborate facilities, particularly in modern teaching institutions, may sometimes forget the problems that exist in the smaller hospitals throughout the country. Since the hospital

serves as the training ground for the specialties, every institution harboring approved residencies should become a teaching hospital regardless of size or university affiliation. It has been learned by experience that there are not yet enough approved three-year residencies to supply the demand, although many small hospitals are well equipped to provide one or two years of excellent training. Under these circumstances the neophyte is compelled to seek a second residency or a properly supervised preceptorship. I am not sure but that this is an advantage in many instances, because it tends to broaden the young man's viewpoint. Since it is the business of the undergraduate schools to teach the basic sciences, it does not seem sensible to require more formal courses in these subjects after graduation. What the resident should be taught at this time is the clinical application of the fundamentals. It is obvious that any obstetrician and gynecologist will be benefited by some additional training in general surgery, internal medicine, or psychiatry, if he has the inclination and the time for it and the chance to get it, but to require it as a prerequisite for specialization in obstetrics and gynecology would be an undue imposition on his already heavy educational burden. No one can dispute the fact that those doing pelvic surgery should be able to cope with nongynecological findings, and if the essential training is not available during the obstetrical-gynecological residency, the resident should be encouraged to seek some experience in bowel and urological surgery elsewhere.

There have been five definitely constructive achievements during the past twenty-five years, all contributing greatly to the elevation of the standards of the practice of obstetrics and gynecology:

First, the almost complete elimination of self-anointed and unqualified specialists, which may be fairly attributed to the influence of the National Specialty Examining Boards. The endeavors of these boards were not designed as a corrective panacea for all the defects of professional practice, but rather to exercise a salutary influence on potential specialists. Their primary objectives are not legislative or restrictive, but educational and constructive. Even the laity now realizes that a specialist can no longer be created by mere pronouncement.

Second, the crystallization of sentiment in favor of the unification of obstetrics and gynecology in medical schools, and the cumulative trend toward such amalgamations which is continuously gaining momentum. Notwithstanding that the two departments are still conducted as separate units in some institutions, in many of them the residents are no longer trained in one subject to the exclusion of the other. For example, at Johns Hopkins and the Mayo Clinic the obstetrical residents spend part of their time in the gynecological department, and vice versa. One can easily imagine the resistance that must have been overcome and the long-standing traditions that were broken to effect such a radical change.

Third, appreciation on the part of aspirants for specialization that they can reach thir objectives only after deliberate preparation, which may fairly be credited to the requirements of the American Board of Obstetrics and Gynecology. The Board has never pretended that its diplomates are any-

thing more than well educated and adequately trained obstetricians and gynecologists, who so far as can be determined are intellectually honest, ethical, and acceptable as specialists to their colleagues in their communities. The Board has been more interested in putting a stamp of approval on all of those who are properly prepared for everyday practice than to restrict its certification to those of extraordinary ability and those who may be destined to fill professorial chairs.

Fourth, the establishment of an increased number of residencies in obstetrics and gynecology, particularly after World War II, which was a natural result of the great demand for additional opportunities for specialty training. Before the war there were less than 6,000 residency positions; soon after it ended there were 9,000. The armed services endowed the Specialty Boards with an otherwise unattainable prestige by automatically giving certified medical officers a higher rank, with the accompanying added emoluments, than they would have received without certification. They also encouraged the uniformed eligible candidates to take their examinations, and made an effort to assign these men to their appropriate fields of practice. With such examples of the advantages of certification repeatedly brought to the attention of large numbers of impressionable young physicians, it is not surprising that the majority should have turned their eyes toward specialization and thus created a sudden abnormal demand for the required training. On the other hand, in the last few years there has been a too rapid increase in residencies set up in some hospitals with deficient facilities, with the result that these are often overstaffed and men designated as residents are really doing interns' work. At the present time there is evidence of faulty training in a few institutions, even in some that have been on the approved list for a long time, and it is therefore imperative to maintain a system of repeated inspections to assure a satisfactory level of residency instruction. A service which fails to hold regular departmental conferences, or on which members of the attending staff conduct labors or operate in comparative silence, displaying little interest in the residents' progress, in no sense merits approval. It is not enough simply to place a young man in an obstetrical and gynecological department unless he has superior library facilities and uses them, does a certain amount of correlated dispensary work and basic science, has a reasonable number of ward patients at his disposal and under his control, and is regularly superintended by those who are competent to teach him. A resident has the right to assume that the members of the visiting staff will guide his instruction, impart methods and techniques in such a way that his imagination and curiosity will be aroused, and stimulate him to cultivate habits which will further his future professional success. There is considerable difference in the wisdom and teaching ability of the personnel who have in their hands the privilege of helping younger men. The basis of pedagogic efficiency lies in the quality of the minds of the staff, their personal interest in the residents, the physical equipment provided for the exercise of their capacities, and the tranquility of their environment. If our minds and consciences are not brought to bear on the younger men, we are not performing our full duty. For example, it

is our responsibility to impress them with the fact that laboratory and mechanical examinations are but additional tools in establishing a diagnosis, are expensive for the patient, and cannot be substituted entirely for the five senses, subjective and objective data, and clinical judgment. They should be taught that the hasty and indiscriminate use of sulfonamides and antibiotics leads to therapeutic carelessness and may jeopardize their diagnostic acumen. Advice regarding the economics of medical practice given at this time will prove of future value. And above all they should be instructed by precept and example to discharge with propriety the duties which devolve upon them as physicians.

Since the military authorities elected to adopt certification as a standard of proficiency in a specialty, it is difficult to criticize hospitals legitimately for doing the same thing, and yet it is ridiculous and unfair to all those who are not eligible until eight years after graduation, regardless of excellent training, to require certification before granting clinical privileges. Like some of the others, the American Board of Obstetrics and Gynecology adopted a resolution in 1947 which was circulated to all the Journals for publication, advocating that the chief of service and the other senior men be certified, but urging that certification be not demanded of junior staff members. The Board has discovered isolated instances where a hospital insists upon certification for full privileges, but the senior men so qualified make it their business to see that the younger group, even though well trained, have no access to ward patients and do everything possible to restrict their clinical opportunities. Of course such a state of affairs deceives no one, reflects on the institution and the older men concerned, hamstrings the younger men, and indirectly embarrasses any committee on credentials.

And, fifth, the marked reduction of the previously inexcusable high maternal mortality, especially in large cities, which has been accomplished since the Committee on Public Health Relations of the New York Academy of Medicine filed its report in 1930 after a three-year study of the maternal deaths in New York City. The committee demonstrated that two-thirds of all deaths in childbirth were preventable, and medical errors were the most important factor in 45 per cent. This report which was presented at a meeting of the New York Obstetrical Society, and later published, aroused a storm of protest, violent criticism, and even temporary personal animosities. However, its truthful conclusions could not be controverted and it finally resulted in the organization of maternal mortality committees in various societies throughout the country which are now emulating the work of the original committee. It is no mere coincidence that the maternal death rate was reduced 66 per cent within the next ten years in New York City alone, because it encouraged hospitals to enforce more obstetrical consultations and to impose definite restrictions on major obstetrical operations.

To essay the role of a prophet is unwise, but I venture to predict that during the next seventy-five years the ideas and ideals of the Fellows of this Society will still further raise the educational standards of obstetrics and gynecology. As Ray Lyman Wilbur has tersely stated it:

"Medicine is so avid for advance, so eager for new ways that are better to help the ailing, or to stop suffering and pain, that those who practice it must be alert to research, must confer with their fellow physicians through societies and literature, and from time to time travel to see what others are doing, or take up special studies or courses. Beyond the period of Medical School training come years of study, if one is to perfect oneself to become a specialist."

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