A Consideration of Twenty Years' Progress in the Teaching of Obstetrics and Gynecology

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CONDITIONS AGAINST WHICH TEACHERS WERE CONTENDING TWENTY-FIVE OR MORE YEARS AGO

Teachers of obstetrics, a quarter of a century ago were handicapped in many ways. From 1815 to 1875 they flourished, as it were, because this period may be labeled the didactic age in medical education. It was the period of the professor raised to the *nth* power. The student was talked to, thundered at, but not taught by actual contact with the patient. There were a few bold pioneers like Prof. J. P. White of Buffalo who dared, in spite of the criticism of colleagues and the laity, to allow the students to see the head of the child emerge from the vulva. Yet these were rare and exceptional teachers. Today, we can hardly realize that only seventy-five or even fifty years ago, vaginal inspection and examination were unknown and that the obstetric forceps were applied under the sheet by the sense of touch alone.

The quarter of a century from 1875 to 1900 was the age of the laboratory development in medical education. The fundamental sciences, chemistry, anatomy and physiology were developed and students were taught systematically through laboratory methods. The medical course was lengthened to three years and toward the latter part of this period, from 1890 to 1900, the clinical subjects began to receive attention. The literature of this time reveals much discussion of the relative merits in clinical teaching of the didactic lecture, the quiz, the amphitheater clinic and the ward walk.

From 1900 to 1925 has been the era of the development of the clinical side of medical teaching. Once the public was shown the safety and economy of hospital treatment of disease, the number of hospital beds increased by leaps and bounds. This furnished the clinical teacher with abundant material in some departments for the demonstration of all varieties of disease. Others, however, will take up this phase of the subject. The above has been set forth simply to secure a starting point for the discussion of the different parts of the outline so far as they have to do with the teaching of obstetrics and gynecology.

From the teaching standpoint, at least, it is essential that obstetrics and gynecology be considered together. In reality, it is one subject with two divisions, obstetrics, including the study of normal and abnormal human reproduction, and gynecology which has to do, in the greater part, with the results of poor obstetrics, or the failures of obstetrics, in over 60 per cent. of the disabilities the gynecologist is called on to treat. Thus gynecology ought never to be regarded merely as a surgical specialty, unconnected with obstetrics. It is perfectly possible to practice one to the exclusion of the other, but they must be taught in conjunction and the teacher must be thoroughly grounded in both, or this instruction will be lacking.

Obstetrics from the pedagogical standpoint was in a deplorable condition in 1900. Not that the teachers of obstetrics did not realize what was necessary for good instruction along modern lines, but their teaching material was sadly inadequate. This was owing to a number of causes. During the decade from 1890 to 1900, the energy of those interested in the generative tract of women was devoted to the treatment of the diseases of women by surgery. This was the decade of surgical gynecology and abdominal surgery, a period fraught with accomplishments of which the profession may well be proud. It gave rise, however, to conditions profoundly affecting obstetrics. The gynecologic surgeon although well grounded in obstetrics either neglected the latter, taught it in a perfunctory manner or gave it up altogether. The young men of this period, who were to take the places of the older obstetric teachers, openly scorned obstetrics and took any short cut to enter the field of operative gynecology. Chairs in medical schools were divided into obstetrics and diseases of women. Sometimes to the latter professorship was added the title of abdominal surgery, since, divorced from obstetrics, and centered in surgery alone, the operating gynecologist soon became dissatisfied with a restricted pelvic field.

The ambitious men, then, following the trend of the times, scorned obstetrics and left these chairs to be filled by the surgically timid or by those who were obliged to be satisfied with inferior positions in the medical faculties. To be sure, hours were assigned the professor of obstetrics in the medical curriculum, but mostly they were for didactic teaching, for in the majority of schools in 1900 there were few if any teaching obstetric beds. In my opinion, this was the main reason why the obstetric teacher developed the out-patient clinic in his endeavors to give the students actual experience with patients. Not that he would not have preferred hospital beds for his obstetric teaching, but because he would have been laughed to scorn had he demanded, as a right, the number of hospital beds for his department equal to those at the disposal of the two other major departments, medicine and surgery.

It so happens that I went to Michigan in 1901, a year later than the beginning of the period we are asked to review. The

conditions I found in my department were quite typical of those existing in other schools at that time. Once, and for all, let me say in not all schools for in some because of favorable circumstances clinical opportunities in obstetrics were better than I am about to portray. Yet, even in large centers clinical obstetrics was very backward. In 1896, in New York City, attendance on a few cases of labor was demanded of a student prior to graduation but the country over this was an exception. In 1912, midway in the period under discussion, in a very illuminating paper to which I shall refer later, J. Whitridge Williams, through a questionnaire directed to the professors of obstetrics throughout the country, showed the real state of obstetric medical education. It was a true but rather sad picture, was thought pessimistic and aroused considerable criticism.

In 1901 at Michigan there was no clinical obstetric teaching. Six or seven women were delivered yearly, before sections of the class by the demonstrator of obstetrics, but as far as I could learn no student had an opportunity to examine the pregnant woman, much less deliver her. Yet there was an excellent service of some twenty-five beds for instruction in surgical gynecology. I was expected to operate twice a week from three to six or seven in the afternoon for the benefit of the students on the amphitheater seats and it was not considered good form for the student to go elsewhere to sleep while the professor was operating. My struggle from the beginning was for obstetric teaching material and for hospital accommodations for this class of patients. The difficulty was not the building up of an obstetric department in a medical school in a small town for immediately the necessary accommodations were forthcoming and patients applied for entrance to the clinic from all parts of the state. The real difficulty was in securing hospital beds for the obstetric patients. For many years I have had to be contented with frame buildings outside the hospital proper for waiting and active obstetric patients. I acknowledge that surroundings and palatial hospitals are not absolutely essential to good teaching and research work. Yet I think my point is well taken, that in comparison with the rest of the chairs in the medical school obstetrics is cared for last of all. At least, I can hardly imagine medicine or surgery being taught in frame buildings for twenty years without a vigorous protest from every one with knowledge of the facts.

My contention is that through all these years a part of the battle for better obstetric teaching facilities should have been assumed by the authorities responsible for the training of medical students. This is not said in criticism now that the conflict is practically over and the fight for adequate obstetric teaching facilities won, but simply as an illustration of the relative unpopularity of obstetrics in comparison with other departments. It would seem as if the absolute necessity of undergraduate obstetric instruction would be recognized, and proper facilities be provided for the teacher of obstetrics;

unless our graduates from now on are to be specialists, all practice in the cities and not any of them deliver women after graduation.

Progress During the Last Twenty-Five Years

I realize that education of the public along any line is a slow process. Thirty-five years ago it was difficult to persuade patients to enter hospitals for major operations and only dire necessity compelled women to be confined in hospitals. This has all been changed by education of the public. Therefore, there is no fundamental reason why the necessity of abundant facilities for the teaching of obstetrics should not be gradually recognized by the profession and laity. There is no need for discouragement. My successor in the chair of obstetrics will not be obliged to argue with one high in university authority, as I did, over the statement that all expense for clinical obstetrics was foolishness and that one woman delivered before the class was enough to demonstrate the way a baby is born.

Gradually the relative importance of obstetrics and gynecology from the teaching standpoint is becoming recognized. Obstetrics after a period of twenty or more years of retirement is coming into its own. Didactic teaching in obstetrics is becoming more and more supplementary and is providing an opportunity for the instructor to lecture on selected topics rather than attempt to cover the whole field of normal and abnormal obstetrics. The absolute necessity is being recognized of a thorough drilling of the student in methods of abdominal palpation of the pregnant woman, of ascertaining the size and shape of the pelvis by pelvimetry, and in fact all the details of examination whereby the nature of the expected labor can be predicted. The interest developed and the great increase of prenatal work throughout the country are indicative of the progress made in obstetric teaching during the last twenty-five years. Prenatal work of thirty-five years ago consisted largely of an occasional examination of the urine, but real systematic prenatal work whereby the student is taught how to form a correct estimation of the prospective mother's condition, and to take such steps as shall insure the greatest safety for her and her child is real progress and along the lines of modern preventive medicine. In the study of such a complication of obstetrics as syphilis we see illustrated the trend toward appropriating for obstetrics the work in other fields perfected during the last quarter of a century. The wise teacher of obstetrics is reviewing all new researches in every department of scientific medicine to see what is of value and can be utilized in his special obstetric field. Roentgenography in obstetrics is another illustration, no doubt in a limited field but an undoubted help in the diagnosis of certain obstetric conditions.

In other words, more and more it is becoming recognized and taught that human reproduction is a physiologic process

and is usually normal. A certain proportion of cases in pregnancy, labor and the puerperium are abnormal, the abnormality being due in quite a proportion of cases not to any inherent fault of the reproductive mechanism, but to derangements arising from disturbances elsewhere in the body. Narrow specialism has no place in medical teaching. Every special field, obstetrics and gynecology included, is taught from a much broader point of view than was the case twenty-five years ago.

The recognition that labor can be made free only from the dangers of septic infection by applying the same surgical principles of antisepsis and asepsis, responsible for surgical triumphs in other fields during the last quarter of a century, has been responsible for much progress in obstetrics. One often sees the statement that puerperal sepsis is more common today than twenty-five years ago. I question the truth of this statement because the figures and methods by which they are obtained are open to serious doubt. At least it seems strange that the undergraduate, taught surgical principles as applied to obstetrics, the use of rubber gloves, rectal examinations and the desirability of no examination of the genital tract in normal cases, cannot lower the mortality and morbidity from puerperal sepsis. Of one thing I am sure, in all obstetric clinics the student is taught aseptic technic more thoroughly and conscientiously than was the case twenty-five years ago.

Gynecology from the standpoint of teaching is gradually being forced into its proper place, a necessary adjunct to obstetrics but far less important. In fact, if we are to progress in the next century, obstetrics must become more and more preventive in character and this means a decline in surgical gynecology, which in the past has flourished on poor obstetrics. However, owing to anomalies of development, neoplasms and infections there will always be a field for gynecology, so there is no need for the surgically inclined to worry.

In 1912, Williams, in the article already referred to, ascertained through his questionnaire that the chairs of obstetrics and gynecology were combined in eight out of forty-two schools, or practically in one-fifth of the schools from which answers were received. I find through a search of the catalogs of 1923-1924, seventy Class A medical schools in which there is a professor of the combined chairs of obstetrics and gynecology in thirty-one or almost one-half. In only six is gynecology combined with surgery. This is a great gain in twelve years and shows that the pendulum is beginning to swing in the opposite direction and that the proper relationship between obstetrics and gynecology is well on its way to being realized in teaching institutions. The advantages to medical education of this movement will be far reaching in the next twenty-five years. Especially will this be so in post-graduate teaching, since in the no distant future the ranks of teachers in obstetrics and gynecology will be recruited from

those well and broadly trained in both divisions of the subject. The future obstetric teacher will no longer be a man midwife untrained in surgical methods, who waits for the birth of the child because he distrusts his own surgical skill. On the other hand, gynecologic surgery will became less erratic because guided by a thorough ground work and knowledge of obstetric science.

Decided progress has been made in the methods of teaching obstetrics and gynecology. The old days of the amphitheater operating clinic has had its day and is fast passing away. No longer do listless students watch without really seeing operations from the amphitheater seats. The amphitheater clinic of the present is largely given over to the study of diagnosis with an occasional operation to determine the correctness of the diagnostic conclusion. Even where operations are performed before small sections emphasis is laid more on diagnosis and principles of operative technic. Small sections, individual teaching, emphasis on principles and not superfluous technical details are the watchwords of today's teaching, a decided improvement over the methods in vogue twenty-five or thirty-five years ago.

Difficulties in Teaching and Suggestions for Further Changes

With no intention of starting an argument over the much debated question of full-time teaching I still must point out under this heading, that we are expecting too much of the part-time teacher of obstetrics and gynecology. It is nonsense to talk glibly of the head of the department of obstetrics and gynecology directing such a department with all the executive work this entails in the care of the patients, the keeping up of the records, the oversight and direction of research work expected of such a department besides doing the necessary teaching of the undergraduate students, and having in addition a large active and consulting obstetric and gynecologic practice on the outside. Such a schedule looks well on paper, but those of us who know realize that either the departmental work, including teaching, suffers or the outside work is gradually cut down. No man can serve two such masters and be loyal to them both. Why should we expect the best results in medical education under such circumstances? The answer is that to expect the best results under such a system is not sensible and may explain why medical educators are not considered very highly by those who make pedagogy a specialty.

I am not making a plea for the full-time clinical teacher, nor am I suggesting a plan whereby he can be secured if that be thought desirable. I am simply stating what every one with experience knows, that you cannot eat your cake and have it too, that you cannot have a large private and consultation practice with all this entails and find time for the proper kind of medical teaching. For financial reasons it may be better for the medical school to oblige or allow the teacher to

pay his own salary by his outside practice. However, if this plan be adopted do not blame him if he sees to it that this salary is adequate even if he has to sacrifice his departmental work to secure the money. To be a good teacher requires native ability, knowledge, study and devotion to the work. Private and consultation practice require the same qualities. Do not compel the clinical teacher to make the choice between the two, since it is human nature, in this day and age especially, not to neglect the financial side of one's profession unless recompense can be found in securing time for scientific work including thorough systematic teaching.

Perhaps this will be worked out satisfactorily for clinical teaching as was the case with the preclinical teachers. With all the latter have to do in their departments, it is difficult to look back to the time when they earned their salaries by private practice. We would not go back to the former system of part-time preclinical medical teaching. Possibly twenty-five years from now we would not go back to the system of clinical teaching in vogue at the present time. If some plan, I do not say what its nature shall be, can be devised whereby the clinical teacher can have more time for his work, so that teaching shall be of primary and not secondary importance, we shall have better medical teaching and the turned out product will show the results of this improvement.

All this leads us to the inevitable conclusion that medical schools must either own or have access to women's clinics in which obstetrics and gynecology can be satisfactorily taught under one roof. The professor of obstetrics and gynecology should be director of such a clinic and give his whole time to the directing of the clinic, care of the patients, teaching and research work, his salary to be paid by the medical school or supplemented by a limited amount of private work performed at the clinic.

The size of such a clinic would depend on the number of medical students in the junior and senior classes. Necessarily it must be a large clinic since the student must be taught the methods of normal delivery, as well as how to care for abnormalities in which prophylactic measures have failed. Possessed of such a clinic with in and out patients in abundance, it would be possible to do away with the outside obstetric clinic, which is a relic of the past when the medical student had to deliver women in their homes because there were no hospital beds for such cases.

It is realized that this plan is not a new one. In fact, it is one toward which medical schools have been tending for many years and which some more fortunate schools have about accomplished. It is the only plan whereby adequate graduate training in obstetrics and gynecology can be secured; and without facilities for such training, the supply of teachers of obstetrics and gynecology, real teachers in every sense of the word, will fall short of the demand. Medical schools, then, will not have to depend on teachers trained in the haphazard manner which so often proved unsatisfactory in the past.

This is not the occasion for discussing whether Dr. Pusey is right or wrong in his plan to secure more adequate professional service for the rural districts, yet I cannot close without applauding what he has had the courage to say about simplifying the medical course. For quite a few years some of us have had the same opinion but have not put it in print. The most difficult task confronting the medical teacher today is to compel the student to make use of his five senses as aids to diagnosis. He would much rather depend on the results of laboratory tests. What the older physician saw and drew conclusions from the student today is blind to and asks details of blood counting and of a half dozen other tests, all good in their way but of secondary rather than primary importance. By all means eliminate the unessentials all down the line in medical education and having determined what is essential teach fundamental principles, so that they can be applied in the intern year and after graduation. If we can make the students reason and think for themselves, and time for this would be forthcoming if only essentials were taught, they will graduate well qualified for general practice. And in the particular field under consideration, they will not start every woman in labor on a certain fixed day, or usher every baby into the world either feet first or through an abdominal incision.