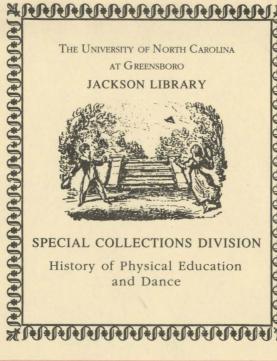
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CORRECTIVE WORK IN PHYSICAL EDUCATION AS AN OCCUPATION FOR WOMEN.*

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By common consent the field of physical education is divided into two parts, the educational and the corrective. Some knowledge of both is necessary for the proper practice of either one, but in general the divisions are fairly distinct both in the schools and in practice. I shall deal in this article entirely with the corrective side of the work, for it is largely with that side of the question of physical education that my experience has to do.

In order to start with a perfectly clear understanding of terms I mean by the corrective side of physical education, the knowledge of medical gymnastics as applied to the correction of scoliosis and faulty attitude, the application of medical gymnastics to the development of disabled or insufficient muscles, to the improvement of the general condition, and to the especial needs of patients with defective chests, hearts, intestines, and the like; in other words, a thorough knowledge of the application of medical gymnastics to pathological conditions. In addition to this I include in corrective work a knowledge of massage both general and special; general massage as applied to its use as a tonic and sedative, special massage as applied to local pathological conditions, such as sprains, fractures, joint disease, neuritis and paralysis. short, I understand a knowledge of the application of both medical gymnastics and massage to pathological conditions to constitute the corrective side of physical education.

The practical questions which arise at the outset of a consideration of this problem of corrective work are: (1) Is there a demand for this class of work? (2) What should be the preparation for it? (3) Is it possible to obtain this preparation? (4) What is the remuneration? (5) Is it a dignified and proper calling for a young woman to follow? My conclusions, you must remember, are from a surgeon's point of view,

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of one who has definite ideas as to the product required, and fairly well formulated ideas as to how it is to be obtained. In most things used by the community there are two parties concerned, the manufacturer or producer and the consumer. It is the consumer who in the long run dictates what the product shall be, for it must suit his needs or there will be no demand for it. My point of view, therefore, is that of the consumer in this matter of the corrective work in physical education.

Is there a demand for persons skilled in corrective work? I must remind you that fifty years has made a change in medical practice. Drugs given so largely fifty years ago are today being given much less and their place is being taken by more rational measures to be classed as physical therapeutics; namely, electricity, baths of water, hot air and light, massage, medical gymnastics, exercises in apparatus, etc. These play a great part in the remedial measures of today and will play a greater part in the therapeutics of the future, for drugs were never in so little use as today. You need look no further than to the prevalence of osteopathy in this community to show you the signs of the times. Again, the last fifty years has differentiated medical practice into specialties. Where the general practitioner in former days treated everything, today the surgeon, the neurologist, the physician, and the orthopedic surgeon has each his field and each deals with the special class of diseases coming to him by means of treatment constantly increasing in complexity and refinement, and with constantly increasing emphasis on physical means of treatment.

The modern surgeon, for example, requires massage for his sprains and convalescent fractures; the neurologist uses exercise and massage in neuritis, nervous prostration, and locomotor-ataxia; the physician has need of these measures in constipation and heart diseases.

Having given these glimpses of a large field let me speak still further of a class of practitioners very largely dependent on skillful corrective workers to aid them. The orthopedic surgeon treats deformities and joint disease. In these he naturally needs the highest skill that he can procure to aid him in exercises, massage, and general corrective work. Lateral curvature of the spine is no longer treated by braces, but by gymnastics; sometimes in connection with other measures, it it true, but by gymnastics in some measure always. The medical gymnast is, therefore, indispensable to the orthopedic surgeon and each surgeon must have at least one such helper,

or the partial time of one. The American Orthopedic Association, embracing by no means all of the practicing orthopedic surgeons, numbers about sixty members, and its members come from many cities. Each one of these and many others must have at least one skillful helper. Add to this the hundreds of surgeons, physicians, and neurologists, and finally consider the thousands of general practitioners who are anxious to avail themselves of physical therapeutics, and you will conclude that there is plenty of work to be had.

Yet there is hardly a week in the year when someone does not come to my office to ask me to send him or her patients in medical massage and gymnastics, and many of them tell me that they find but little work. Why is this if the field is so large as I have said?

It is because the product is not what the consumers need, it is the manufacturer's product, elaborated without regard to the consumer, hastily and incompletely manufactured, turned out half finished and incomplete, unsuited to the need of the consumer. As I said before, it is the consumer who must in the long run dictate what the product is to be, and therefore, necessarily, what in a general way the process of manufacture must be, and the consumer, the medical man, has not been considered enough, and is not content with the manufacturer's ideas and methods. The orthopedic surgeon, for example, does not want a woman who has been given a few lessons in the technique of massage, a woman who knows about educational gymnastics and the theory of gymnastics, yet who has had only a cursory experience in their application to patients. There are too many such now in the field. I am told that ten dollar a week stenographers are to be had by the hundred, but that women worth twenty dollars a week are extremely hard to find, and are generally occupied.

What the orthopedic surgeon, for example, wants, is a higher grade of medical gymnast than is now educated in this country. A woman with a sound working knowledge of anatomy, especially surface anatomy, a familiarity with physiology, enough to acquaint her with what muscular activity means in physiological terms, enough instruction in symptomatology to know that shortness of breath means one of several pathological conditions and what these are. To know the symptoms of fatigue, and what nervous prostration is. She must know in general the symptoms of inflammation and especially must she know the different kinds of joint disease, at least theoretically. In short she must be better grounded

than now in the foundation facts of physiology, pathology, and symptomatology, and, above all, she must be taught to use her mind and to make her own applications. There is at present too much teaching of detail and too little of principles. There is no better application of this than the fact that the ordinary medical gymnast is now too often content to take the responsibility of a case of lateral curvature of a severe type, to give a set of exercises sanctioned by tradition, the mechanism of which she does not in the least understand, and she is content to go on giving these week after week without demanding a perceptible improvement in the case.

The woman educated as I would wish would say, "Here is a case of malposition of the spine. Exercises in sufficient dose should increase flexibility and improve the position." She would then consider the case as an anatomical problem and apply her knowledge of gymnastic principles, and if the case did not improve, she would consider that her treatment was wrong in some way or the conditions under which the patient lived were unfavorable. If you were an orthopedic surgeon, which woman would you wish to treat the cases on which your reputation depended? The teaching must in a measure be done by medical men in active practice; they have had too little share in the education of their helpers and they are but little represented in the schools which teach in some degree medical gymnastics and corrective work. In the catalogues of all the schools of physical education that I could find, there were 117 instructors, of whom only 23 were graduates of medical schools, and many of these, I assume, were not in active practice.

I come now to the question of massage and its teaching. In Germany the art, as should be the case, is taught by the surgeon and in large measure practised by him. The physiology of massage is taught and what it can do in physiological terms, the anatomical reasons for certain manipulations and the physiology of percussion, effleurage and kneading. The technique is secondary to sound theoretical knowledge, for the manipulator knows what he wants to do and what the means are at his disposal and whether his touch be light or heavy, whether his hands be rough or smooth, he is using his brain to guide his hands and he is more likely to get results than the person who uses his hands alone.

For some years I have been asking many of the people who applied to me for massage to massage my arm in order to show me their method. In this way I have had experience of

many varieties of technique and methods of various kinds, but as a rule, an aimless manipulation, inefficient and on the whole

unintelligent.

For massage, therefore I would advocate instruction and drill in the principles of the anatomy and physiology of the treatment, especially as to the reasons for each manipulation and, above all, I would ask for massage from the brain and not wholly from the hands. I would lay less stress on technique and more on principles, and never teach technique alone. If you were an orthopedic surgeon, would you prefer to entrust your cases of joint disease to a woman drilled for six weeks in massage technique, or to a woman who had perhaps an indifterent technique, yet who had in mind what she wanted to do and the brains to do it?

I have thus come to what I regard as the most important requirements in corrective work, the education of the workerand I use the word education literally. It does not matter so much whether the instruction period be two years or four, and it is not of primary importance that the subjects taught cover exactly one ground or another, so long as they embody the essentials, but it does matter very much, and is to my mind of primary importance, that the pupil should be taught to use her mind and think for herself. would not make the training a drill in the technique of medical gymnastics and massage, but a grounding in the principles on which these arts rest and an application of these principles to practical conditions—no two cases in practice are alike, no one can teach a worker a technique which will cover any number of cases; that is the trouble with mechanical massage, massage by machinery, there is no adaptability to it, no intelligence. In the corrective worker, therefore, one must look for intelligence first and technique second, a knowledge of the pathological conditions to be met and the means available, and an intelligent application of the means best suited to the individual

With regard to the length of preparation and the character of the studies required I have no wish to enter into the subject much further than I have just done. To my mind the method of instruction is so important that it dwarfs all other considerations. Of one point I am sure and that is that the equivalent of at least one year of practical clinical work is necessary for the proper training of a corrective worker. This may not be necessarily in addition to the two years of the course, or whatever the length of the course may be, but contemporaneous with part of it. I know that corrective workers

can be turned out in six weeks or three months, but the kind of corrective worker that I mean will have to take a course of at least two years, and a year of practical work, half of the latter, perhaps, being contemporaneous with the two years' course. I can see no reason why this should not be sufficient time provided the instruction is adequate, digested and focussed. In one school 23 subjects are given in the senior year, and of course no such multitude of studies can be done properly or thoroughly.

It would seem to me that in a general way the fundamentals for both corrective and educational work must be the same, and that a first year common to both might be possible, with a second year where the two courses might spread apart and be taken by separate sets of students. This might simplify the problem.

I have thus answered two of the questions proposed at the outset: (1) I believe that there is a field opening for highly qualified corrective workers that will be very wide in its extent. (2) I believe that the preparation for it should consist in better instruction in principles and less in technique, that the educational value of the instruction should be increased; that part of the instruction should be given by practical medical men, and that the product should be adapted to the wants of the physician.

3. Is it possible to obtain this preparation? I have examined with care the catalogues of all the schools of Physical Training in America that I have been able to find and nowhere have I seen a course covering the requirements that I have mentioned. At present a young woman to qualify properly must go to Europe for at least a year, where, in Germany preferably, she can receive adequate instruction from medical hands and fit herself to meet the medical demand. Here in America the demand has been for the training of workers in educational gymnastics. Too often it has been only those lacking in a sense of rhythm or in authority over children who are advised to look to corrective work. They are not directed to it by any especial fitness but by some unfitness for other work.

But this phase may be only a stage in the development of physical training and probably a larger number of persons are reached and helped than they would be by corrective workers. The schools of physical education have emphasized very properly I think the side of the work for which there was the greatest demand and the widest use. Of 220 graduates of one

school, some 170 were in educational work, while 50 were doing "private work," etc., which might have been either educational or corrective, probably in most cases the former.

But is there to be in America any attempt to supply well educated, high grade, corrective workers? Are the schools ready to take it up and do it thoroughly, or is it to remain what

it is now, largely a side issue?

4. What is the remuneration to be expected? A person doing corrective work may do so in one of three ways: First, she may assist a physician, and give him all her time for a salary. Second, she may open a gymnasium and take patients from several physicians, but only from physicians, and not treat cases on her own account. Third, she may work as a free lance and get patients when and where she can with or without the doctor's consent and approval.

The first is the most desirable and the safest, the second may or may not succeed, and the third course is likely ultimately to fail, although the personal popularity of the woman may carry it to success. Lacking, as she must, however, the support of the profession, many difficulties must arise and the handi-

cap is a large one.

For women equipped only with the present training in corrective work, a large salary cannot be expected, nor is the present demand very great for such workers as physicians' assistants. It is the old question of the ten and twenty dollar stenographer. I know men who would gladly pay a large salary for such helpers but they cannot get them in America as a rule, although here and there an exceptionably clever woman fits herself to meet the conditions and becomes worth \$1,500 or \$1,800. I should place the average remuneration as likely to be \$400 to \$1,000 a year as physicians' assistants under present conditions. The free lance may in exceptional cases make much more for a while, but the end may come at any time and the position is not suited to a woman of brains and self-respect.

5. It is hardly necessary to say that a woman, educated as I have described, acting as assistant to a physician or taking patients from physicians, will find herself in a position of dignity and in a place of which no one need be ashamed. It is no less pleasant than educational work and no less dignified. It is more varied, the relations with patients is a pleasant one, and a certain professional standing comes to one who will keep her professional and social relations apart from each other, a

matter of much practical importance.

And again, if we should start to teach corrective work on a new plane, let there be no talk of systems, no Swedish, or German, or French, or other system. There is no German or Swedish system in anatomy or physiology or surgery. Surgery is surgery the world over, there is good surgery and bad surgery, and if a man invents an operation it is called by his name but there is no German surgery or French surgery, or Swedish, or any other national qualification. And so in the interests of breadth and development let us remember that physical education and medical gymnastics and massage are but the applications of general principles to abnormal conditions, and that as the sciences of anatomy physiology and chemistry on which they rest are the property of all nations so should their application be freed from any limiting adjectives. It is hard for a medical man to understand why the applications of sound principles to sound practice must be limited by any qualifying adjectives.

If you have followed my line of argument you will see that I think the demand for skilled workers is very great, that I do not think the schools of this country are yet equipped to furnish such skilled workers, and that for imperfectly educated workers I do not think that there is much present demand. A clever woman here and there achieves great success, but this is due to herself and not to her training. With a more adequate system of education I believe that a lucrative, pleasant and dignified occupation will demand the services of many

women.



