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# The Reconstruction Aide: A Brief, Significant Moment in the History of Manual Therapy

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## World War I

An irony of war is that it is a remarkable time of medical and scientific advancement. Necessity is the mother of invention, and overwhelming necessity shakes up traditions and forces innovative new solutions.

World War I, with its more than 8 million killed and 22 million wounded, exemplifies the enormity of this truth. New forms of warfare, such as aerial and tank bombardment, and use of chemical weapons like mustard gas, created medical challenges that had not been encountered before and on a massive scale. Poor nutrition, lack of clean water, and trench living conditions bred epidemic infectious diseases such as influenza, tuberculosis and pneumonia, which were the cause of about 70% of soldier mortality. The gruelling length of the war under such conditions produced a magnitude of mental illness. At the same time, improvements in battlefield medicine meant that more wounded survived than in prior conflicts and they needed care and rehabilitation.

Depiction of Florence Nightingale in a military hospital

Despite the traditions of military medicine, the idea of sending units of medical personnel, especially females, to the battle zone was in its infancy. The service of British nurses such as Florence Nightingale in the Crimean War (1854-56) was viewed positively and a small British Nurse Corps had been formed. The Canadian military and the RCMP had sent tiny cadres of nurses into the Canadian hinterland with expeditionary forces on a few occasions, and eight were sent with the Canadian contingent to the Boer War in 1899. A small number of nurses (under 50) were in the Canadian and British reserves. No one was prepared to care for the flood of wounded as WWI got underway in Europe in 1914. Canada, following Great Britain in declaring war, was immediately thrown into the urgent chaos of how to meet the treatment demand.

## Nursing, Massage, Physiotherapy… the Status of Manual Therapy as the War Began

The beginning of the 20th century was an indeterminate time for manual therapy. Heroic medicine was giving way to more scientifically-based medical treatments, but also to a major natural therapies wave that fostered hydrotherapy, electrotherapy and therapeutic exercise. Massage had always

had its place, blended within the work of rubbers and bonesetters, and central to longstanding traditions in nursing and midwifery. There were times, and practitioners, when the term massage was used to name the practice, and many others when it was simply a core part of what the practitioner did, whether it was called athletic rubber, nurse, or something else. The terms masseuse and masseur were coming into fashion by the later 19th century to describe practitioners whose main identity was as a massage provider.

It is very true of this time, however, that such identities were porous and involved no real professional boundaries. An individual could pursue multiple types of training and create a self-defined practice. The nurse/masseuse combination was very common, and a number of different paths were forged in the athletic world, where massage and therapeutic exercise practices (sometimes still under the old heading of medical gymnastics) were blended in various ways. Physicians and surgeons were training assistants to do the hands-on portions of their patients' care, and this led to eclectic types of practitioners. Hydrotherapy, electrotherapy and use of vibratory equipment and heat lamps were popular – while they were present in hospitals and medical clinics, anyone in private practice could also take some training and use them.

For manual practitioners, there were employment opportunities in the emerging modern medical world – in hospitals, sanatoria and physicians' practices; there were the more traditional athletic, spa and bath house venues; and then there were a number of more entrepreneurial options to create one's own multifaceted practice or clinic.

Physiotherapy existed in North America as a minor physician specialty, not as the profession we know, although there were some practitioners who used this title, often people who had received training in England or Sweden. It was not an identified separate manual therapy, but it had an early existence as a preference for certain types of therapeutic practices and modalities focused on injury rehabilitation. It was common for the masseuse/masseur to pursue training options along this professional path. It was a compatible direction, since massage was a primary treatment method for both.

Margaret Roebling, Reconstruction Aide

## Wartime Medical Care and Rehabilitation

The British were a few steps ahead in medical military preparedness and they took the lead in setting up a system. The Canadians, and when they entered the war in 1917, the Americans, created similar, compatible setups. Wounded soldiers were first transported to a field ambulance station for basic stabilization, then to a medical evacuation post for examination by a doctor. The next step was the stationary or base hospital located a bit back from the front, with about 250 beds and a nursing staff under a matron. Ambulance transport to these hospitals was usually in convoys under cover of night. The final level were large general hospitals in the home country, to which cases involving more extensive convalescence and rehabilitation were sent. Nursing units rotated among the base and general hospitals.

The first priority of the field care centres was, wherever possible, to return soldiers to the battlefield, including those with post-traumatic stress. Initially, emergency, postsurgical and rehabilitative care all fell to the nursing staff, but it was an overwhelming workload. The idea of creating a different corps to handle the rehabilitation side – called "reconstruction" at the time – led to the formation of reconstruction aide services. This new professional grouping worked in both base and general hospitals, in the war zone and at home.

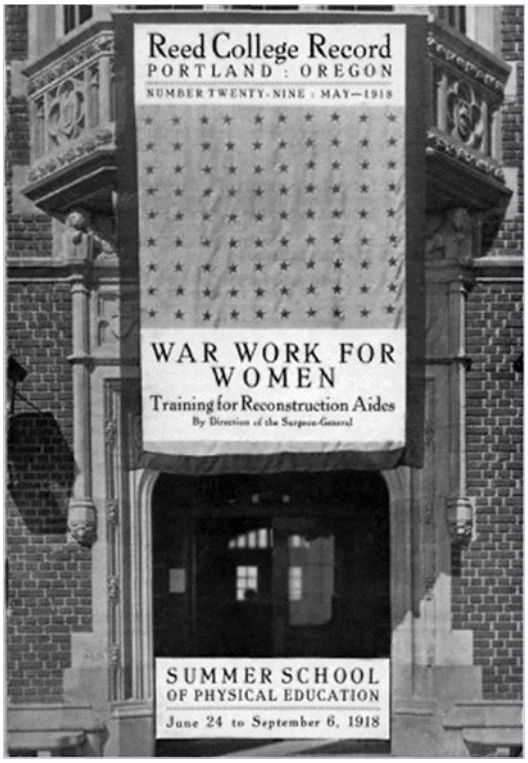
Since reconstruction aides did not exist before the war, and, unlike with nursing, there was no obvious professional bloc to mobilize into these units, emergency training programs were established. They were filled with teachers, physical education majors, artists, and of course, manual practitioners of various styles. In Canada, some were masseuses who had received training/mentorship from British émigré members of the Incorporated Society of Trained Masseuses in hospital programs like the one at the Toronto Orthopedic Hospital. The candidates were female, in their 20s, generally middle class and better educated.

The leadership in establishing these units came from the orthopedic wing of the British medical service. Foremost was Sir Robert Jones (often called the "father of modern orthopedic surgery"), who was a strong proponent of massage for fracture and postsurgical rehabilitation. During the war he was the Inspector of Military Orthopedics, with oversight of 30,000 beds and all orthopedic and reconstruction practitioners. Also key was James B. Mennell, the medical officer for the physiotherapeutic department at St. Thomas's Hospital. Among his responsibilities, he was a lecturer in the hospital's massage program from 1912-1935. During WWI Mennell was in charge of the massage department at the Military Orthopedic Hospital in the Shepherd's Bush area of London, one of the country's major reconstruction centres. Mennell wrote a core text, *Physical Treatment by Movement, Manipulation and Massage* (1917). His influence helped consolidate a central place for massage within physiotherapy that continued into the 1960s.


Photo from the Hart House archive

RA training took place in several Canadian locations. Two of the largest programs were at McGill University in Montreal (1-year program) and at Hart House at the University of Toronto (6 months). The Hart House program was overseen by the Military School of Orthopedic Surgery and Physiotherapy. Hart House has an interesting photo/documents archive from this period.

When the U.S. entered the war, their army set up a reconstruction department and a number of training programs were opened in the United States. There were many interconnections among the services. Mary (Mollie) McMillan was the Director of Massage and Therapeutic Exercise at Children's Hospital in Maine when war began. She had trained in Liverpool, England and worked with Robert Jones there. In 1917 she became Chief Aide at Walter Reed General Hospital, one of the major army facilities.




| Subject | Hours |
|---|---|
| Anatomy: | |
| Theory | 38 |
| Laboratory | 61 |
| Physiology: | |
| Theory | 16 |
| Laboratory | 16 |
| Massage: | |
| Theory | 38 |
| Laboratory | 74 |
| Hydrotherapy | 4 |
| Electrotherapy | 6 |
| Remedial exercise: | |
| Theory | 33 |
| Laboratory | 33 |
| Pathology | 26 |
| Kinesiology | 6 |
| Psychology | 10 |
| Hospital management | 2 |
| Emergency treatment and bandaging | 23 |
| Personal hygiene | 3 |
| Ethics of nurses | 2 |
| Surgical clinic | 15 |
| Reconstruction clinic[1] | 163 |
| Development group exercise | 28 |
| Recreational exercise | 23 |
| Total hours | 620 |

[1] Practical experience in the actual treatment of patients.

Reed College program shows the emphasis on massage

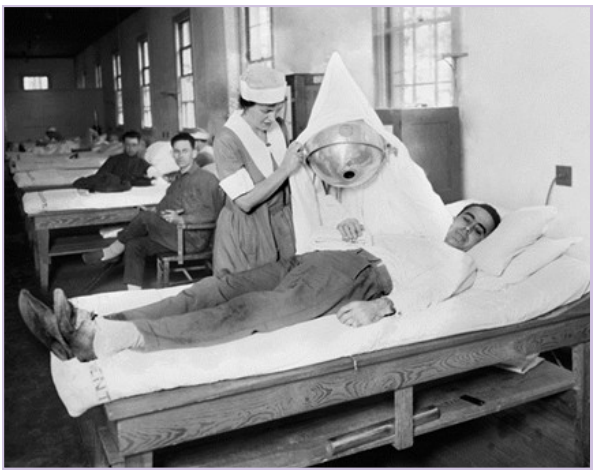
From there she was transferred to Reed College as an instructor and director of their clinic. After the war she went on to become a leader in the development of physiotherapy in the United States. In Canada, a similar figure, Enid Graham, joined the Royal Canadian Army Medical Corps and was an instructor in the McGill program. She is viewed as a founder of Canadian physiotherapy. In other words, after the war ended, women like these launched the physiotherapy profession in North America.

Mollie McMillan (back right) with soldiers doing foot massage at Walter Reed.

## Life as a Reconstruction Aide

Reconstruction aides were divided into two main categories: those in the physical therapy paradigm and those providing occupational therapy. RAs who worked in their home countries saw the establishment of wards, workshops and centres where they could engage with patients in the activities for which they were responsible. The occupation-focused aides were encouraging activities that led to job fitness or re-training, and the physical therapy aides were promoting rehabilitation. Massage was prescribed for most patients – records suggest that physio RAs did about 40% massage, 25% therapeutic exercise, and the rest other modalities. Many of their patients were amputees, had orthopedic injuries, or had peripheral nerve damage. The workload was high and could be stressful, but was not dangerous.

For home-based staff, the term reconstruction aide was not always used, especially in Canada. The Dominion Orthopaedic Hospital in Toronto published a *Lest We Forget* WWI commemorative booklet that acknowledged the contributions of its staff to the care of wounded soldiers. In it

Photos from U.S. WW I military archives

they named all employees by department. The two relevant headings were “Masseuses” (64 names) and “Muscle Function Department” (24 names). By way of comparison there were 71 names under “Nursing Sisters.”

Reconstruction aides in the war zone had plenty of challenges. When they arrived in Europe, they often had to create their facilities and treatment methodology from scratch, putting in long hours under very difficult conditions. They were also working with patients at earlier stages of shock and recovery. For less injured patients, they might be immediately focused on return to battlefield status, but in many cases, for both practitioner types, the first focus was promoting re-engagement and boosting morale and will to live. Occupational RAs would be teaching crafts-based activities that could be done in bed, and physio RAs would begin treating in bed or at bedside. Emotional bonding was as important as physical, and they, along with the nursing staff, worked with patient wellbeing on many different levels. While inappropriate connection was not encouraged, given the stresses and the limitations of care, everyone understood that their cheerfulness, resilience, support and encouragement were crucial to their patients’ progress. For young women with minimal training, the amount of responsibility they had was tremendous.

Reconstruction aides marshalling for transport to Europe

Dr. C.M. Sampson, an American reconstruction officer, said of the RAs, “No corps ever displayed greater loyalty, more unselfishness, greater devotion to duty or a better general high average of efficiency, from the Chief Aide to the humblest assistant aide, than did the reconstruction aide body during the heaviest work of the reconstruction period. Their esprit de corps became a thing

remarked upon by all who observed their work. We feel that no written or verbal effort of ours will ever result in giving them more than a part of the credit due to them. They are beyond mere praise."

## After the War

After the war ended the reconstruction aide units were disbanded, leaving a sizeable group of experienced, highly motivated young women without a role. Many returned to their previous lives, but a number of RA leaders and practitioners were instrumental in moving their new careers forward. This was the birthing point of today's professions of physiotherapy and occupational therapy. Massage as a stand-alone therapeutic practice also enjoyed a tremendous boost in respect and popularity – the postwar period was a heyday for masseuses and masseurs.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