

PHYSIOTHERAPY IN THE FIRST WORLD WAR

Nearly 18,000 charities were established during the four years of the war. The most popular causes were "comforts" - including clothing, books and food - for British and Empire troops, medical services, support for disabled servicemen, organisations for relieving distress at home, post-war remembrance and celebration, aid for refugees and countries overseas, and assistance to prisoners of war.

Nearly eight million men came home permanently disabled. New charities for medical treatment and rehabilitation were formed and physiotherapy progressed. A permanent peacetime massage and therapy service for the armed forces and disabled ex-servicemen was clearly needed.



The Bath Chair - Wickerwork Bath Chair, Late Victorian design.

The bath chair was developed in 1750 by British inventor James Heath. Bath chairs were first made from wicker and provided a comfortable by lightweight form of mobility transport that was especially suited to areas with plenty of space.

They were used mostly outdoors.

They were considered so useful that they were then used widely to help with injured soldiers following the American Civil war, and continued to be popular through the Victoria period in Britain, helping transport people to the seaside, spas and hospitals.

The first known wheelchair that was propelled by pushing the wheels was developed in Paris in 1890, and made until 1940. This three-wheel chair had the two large drive wheels at the front, and a single small castor at the rear.



Donations to war and other charities rose between 1914 and 1918, and continued to do so into the 1920s. From the start, as reservists were called up, the loss of the main wage-earner created severe hardship for many families.

At first, the war exacerbated unemployment, because the markets for some goods collapsed. The government quickly realised men would not volunteer

to fight if they did not believe that their homes and families would be looked after.

A National Relief Fund was set up with Edward, Prince of Wales, as treasurer, to help the families of serving men and those suffering from "industrial distress". In a message in national newspapers, he said: " At such a moment we all stand by one another, and it is to the heart of the British people that I confidently make this earnest appeal." Within a week, donations to the fund had reached £1m.

Newspapers ran appeals for everything from sports equipment to tinned food and hard cash. The aims of the *Daily Express's* Cheery Fund were "to oblige everybody at the front who asks for things, and cheer up those who do not want anything". Men on active service received an extraordinary range of gifts from the fund, including footballs and cricket equipment, gramophones and records, books, banjos, violins and games.



Typical among them were Almeric Paget MP for Cambridge, and his wife Pauline Payne Whitney (then an American Socialite), who proposed funding a corps of 50 trained volunteer masseuses or "medical rubbers" - the forerunners of today's physiotherapists - to treat injured men. Paget's Massage Corps was established within days and run from his London home.

The former Almeric Hugh Paget, he was the son of Gen. Lord Alfred Henry Paget and a grandson of the first Marquess of Anglesey, who commanded the British cavalry at Waterloo. In America Lord Queenborough spent an adventurous period in the northwest as a cowpuncher and farmhand. Later he went to St. Paul, Minnesota where he laid the foundation of his business career. In 1895 he married Miss. Pauline Payne Whitney, daughter of the former United States Secretary of the Navy, William C. Whitney. They had two daughters.

Physiotherapists created individual programs to help soldiers regain physical abilities and improve their quality of life. Massage therapy became a respected profession for women during World War I. It eventually became a recognized branch of physiotherapy. Governments in Europe and the US established rehabilitation programs that included physiotherapy, vocational training, and long-term medical care.

The offer was accepted and by November 1914, and some 50 women had been placed in military hospitals. At this time, the demand for physiotherapy (or Massage and Electrical Treatment as it was known) increased and the Pagets were asked to open a day centre in London to relieve pressure on the military hospitals in London.



Pauline Page Whitney – Military Massage Corps

Lady Alexander Paget offered her house at 55 Portland Place and soon over 200 men were being seen at the clinic seen every day. By now the number of women employed in the corps was over 200 and soon they became attached to the staff of most military hospitals with a further 120 masseuses employed.

Almeric Paget Massage Corps

The treatment given to men at Summerdown included regular sessions with the women of the Almeric Paget Massage Corps. Initially founded by Almeric Paget and his wife Pauline Page Whitney.

Women in the Corps were easily distinguishable from women in the regular Nursing Service. They wore a simple uniform with the badge of the A.P.M.M.C on their left arm, whilst the presence of red bars on the shoulders



highlighted those women who were senior in rank. The treatment they gave was a mix of massage and electrical stimulation using machines like the Bristow Coil.

It was in October 1914 that Sir Robert Jones made a beginning at Alder Hey Hospital of what is now the Military Orthopaedic service represented by its numerous centres throughout the British Isles. The Massage Department had its inception in February 1915. The first appointments were made at the principal Military Hospitals, Aldershot and Netley with the Hon. Essex French appointed Secretary to the Corps.

In the Massage and Electrical Departments, the masseuses were instructed in the special methods adopted for treatment of orthopaedic cases with weekly tutorials held of the Officer in Charge of the Massage Department.

Sir Alfred Keogh, Director General of Army Medical services inspected the centre in March 1916 and took great interest in the whole work of the Corps. After his visit he wrote to the Paget's asking them if they would be willing to undertake the organisation of the massage and electrical Departments of the large convalescent camps shortly to be opened, for the upkeep of which the War Office would give a grant.



In accordance with Sir Alfred Keogh's wishes, the Almeric Paget Military Massage Corps is now responsible for the running of the Massage Departments at all the Military Hospitals, Command Depots and Convalescent Camps in the United Kingdom with a Medical Officer and a Matron-in-Charge appointed to each centre.



The Pagets had long campaigned for remedial massage to be established as a legitimate therapy, practised by trained and respectable women. Demand for the work of the new corps' volunteers increased rapidly as the number of war casualties escalated.

In early 1915, the government asked the Pagets to fund more services, including an outpatient clinic, which they provided in another of their London properties.

Until 1917 all Corps members were UK based but from January 1917 onwards members could volunteer to work overseas and by the end of the war 56 members of the Corps had or were working abroad in Italy and France.

By the end of the war over 2,000 masseuses and masseurs were at work and just under 3,400 had been engaged by the Corps at some point during the war.



The 'Painless' Coil as arranged by Captain Bristow for the treatment of wasted muscles

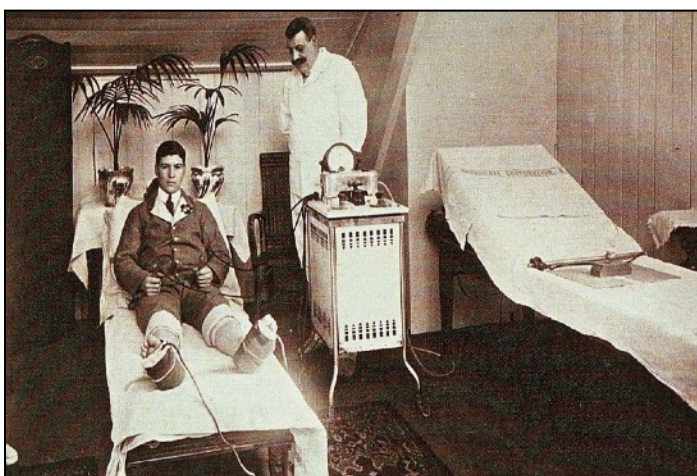
Volunteering of this kind became essential to the war effort, at home and in battle areas. The sheer scale of help required was unprecedented; so too was the impact on the way charities were run.

The Corps came to an end in January 1919 when a formal Military Massage Service was formed under the auspices of the Army and Pensions Massage Association. All members of the Corps were given the option to join the new Service which was controlled jointly by the War Office and the Ministry of Pensions.

Commentators argue now that the work of civilian volunteers and charities helped create a social cohesion that bolstered morale among British troops. But the millions of donations and thousands of new charities also exposed the limitations in the law and the work of the Charity Commission, forcing the government to introduce legislation to regulate the sector along lines that are familiar today.

In total, some 3,400 Masseuses and Masseurs enrolled in the service and there were over 2,000 at work on the day the Armistice was signed. One Masseuse wrote that the careful and conscientious massage of eighteen to twenty cases daily is quite hard work.

Although in the electrical Department it is less physical, one still had to remain alert. Whether stimulating muscles by the use of the 'Bristow' coil or subjecting a limb to interrupted galvanism, ironization or a Schuee bath, diathermy or radiant heat, so constant attention to every detail was essential.



It was the practice to alternate massage and electrical work, i.e. a masseuse will spend three months in the Massage Ward, and then will follow three months of Electrical Department. In addition, at the Highfield Military Hospital remedial gymnastics are undertaken by masseuses.

These days, three forms of diathermy employed by physical therapists are ultrasound, short wave and microwave. The application of moderate heat by diathermy increases blood flow and speeds up metabolism and the rate of ion diffusion across cellular membranes.

The fibrous tissues in tendons, joint capsules, and scars are more easily stretched when subjected to heat, thus facilitating the relief of stiffness of joints and promoting relaxation of the muscles and decrease of muscle spasms.

Ultrasound diathermy employs high-frequency acoustic vibrations which, when propelled through the tissues, are converted into heat. This type of diathermy is especially useful in the delivery of heat to

selected musculatures and structures because there is a difference in the sensitivity of various fibres to the acoustic vibrations; some are more absorptive and some are more reflective. For example, in subcutaneous fat, relatively little energy is converted into heat, but in muscle tissues there is a much higher rate of conversion to heat.

The therapeutic ultrasound apparatus generates a high-frequency alternating current, which is then converted into acoustic vibrations. The apparatus is moved slowly across the surface of the part being treated. Ultrasound is a very effective agent for the application of heat, but it should be used only by a therapist who is fully aware of its potential hazards and the contraindications for its use.

Microwave diathermy uses microwaves, radio waves which are higher in frequency and shorter in wavelength than the short waves above. Microwaves, which are also used in radar, have a frequency above 300 MHz and a wavelength less than one meter.

Most, if not all, of the therapeutic effects of microwave therapy are related to the conversion of energy into heat and its distribution throughout the body tissues. This mode of diathermy is considered to be the easiest to use, but the microwaves have a relatively poor depth of penetration.

Microwaves cannot be used in high dosage on edematous tissue, over wet dressings, or near metallic implants in the body because of the danger of local burns. Microwaves and short waves cannot be used on or near persons with implanted electronic cardiac pacemakers.



Occupational Therapy – Soldiers Knitting and Sewing

Today, basketmaking is often perceived as a clichéd and old-fashioned or outmoded approach to recovery. This may stem, in part, from the use of the derogatory term ‘basket case’ for people who are undergoing rehabilitation.

The origins of this term are unclear but come either from the use of basketmaking in the rehabilitation of those injured in war, or from the use of basketwork chairs and spinal carriages for the most seriously injured.

Occupational therapy can be defined as the use of graded activities to assess disability, to aid recovery from physical or mental illness, and to measure progress. The rise of occupational therapy was closely linked to events of the First World War. The vast numbers of soldiers returning from the war with significant injuries, amputations, blindness and shellshock needed physical and psychological healing and rehabilitation, and also work. At the same time, the war effort needed people to make necessary things to keep the economy – and the war – going. Basketmaking, netmaking and other associated skills were in fact essential for many areas of industrial production, in factory work, in agriculture and fishing, and even spying. Many injured soldiers were therefore given basketmaking and associated ‘light’ tasks to do in workshops linked to hospitals.