MEDICAL REHABILITATION IN HOSPITAL*

BY

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A comprehensive rehabilitation scheme, in the modern sense of this term, is a two-stage process. The *first stage* is that of *medical rehabilitation*, which covers the period extending from the beginning of an illness or injury to the end of convalescence and reconditioning. This stage is primarily the concern of the medical man and his team of auxiliaries. The *second stage* is that of *social and industrial rehabilitation*, in which the victim of illness or accident, after having been restored to the maximum degree of fitness possible under the circumstances, is resettled in his former occupation or trained to follow a new occupation. In the past, the social and industrial aspects of rehabilitation have depended almost entirely on the zeal and activities of voluntary organizations. But now the State has entered the field as a powerful reinforcement, through the new functions of the Ministry of Labour. But I would emphasize the view that there is no clear-cut dividing-line between medical rehabilitation and social or industrial rehabilitation as it concerns the sick person. The whole process is indivisible. The hospital physician or surgeon who is interested in his patients as men and women conditioned to a particular social or industrial environment must of necessity want to learn how successfully—if indeed at all—they have become adjusted to the mental and physical stress of the old work or the new vocation. The medical man must also be prepared to challenge, if need be, the suitability of the new working conditions. And equally the social worker, whether lady almoner or Ministry of Labour rehabilitation officer, must come into action during the stage of medical rehabilitation. They should make their first contacts with the hospital patient before his period of treatment and re-enablement has ended. This early contact is provided for under the Disabled Persons (Employment) Act of 1944—a notable piece of social legislation which is the outcome of the Tomlinson report (1942). The complete scheme of rehabilitation is in its infancy, but we can look forward to a time in the near future when the harmonious blending of remedial and social measures will be one of the outstanding features of our health services. Furthermore, there are signs that certain industries may make a contribution to the stage of medical rehabilitation by providing workshops in which lighter forms of occupation can be deliberately prescribed on a curative and remedial basis. This experiment is now under trial in the Austin Motor Company's works at Birmingham in conjunction with the Birmingham Accident Hospital, and is meeting with conspicuous success.

History of Medical Rehabilitation

In the age of Pericles we find that Hippocrates gave clear instructions for the rational use of sun, air, water, and above all *exercise*, as a means of restoring the injured and sick to health. Hippocrates, it is interesting to learn, understood the importance of balancing a regime of *exercise* with a regime of *rest*. The respective roles of rest and exercise have been the subject of debate again and again during the 2,000 years and more which have elapsed since the founding of the Hippocratic school of medicine.

The end of the eighteenth century and the earlier years of the nineteenth were the period of the founding of the earliest orthopaedic hospitals in various European countries, including Great Britain. As this was long before Lister had made operations safe by the introduction of the antiseptic technique, non-operative methods of treatment held the field. The Orthopaedic Institute founded at Montpellier, in France, in 1825 is deserving of special notice, for it was perhaps the first of the country orthopaedic hospitals—the forerunner of hospitals which are so

familiar to us to-day. This institution was set up in a park on the outskirts of Montpellier and was equipped on almost a lavish scale for gymnastics, games, and other forms of recreational therapy—in short, for many of the remedial measures included in the modern programme of medical rehabilitation based on our wartime hospitals. Since those early days orthopaedic hospitals and orthopaedic surgeons have played the predominant part in the development and organization of the expanding techniques of rehabilitation, and have been responsible for their inclusion in the armamentarium for the treatment of crippling disease and injury. It was Sir Robert Jones (1858–1933), the greatest master of orthopaedic surgery of modern times, who during the First World War gave us the following definition of the sphere of action of the orthopaedic surgeon: “The treatment by manipulation, operation, re-education and rehabilitation of the injuries and diseases of the locomotor system.”

The First World War, 1914–18.—This was the period when the present-day concept and practice of medical rehabilitation first took shape. Many will remember the splendidly equipped military orthopaedic hospitals, as they were called, which Sir Robert Jones, after much opposition, was permitted to organize. There was the parent hospital at Alder Hey, Liverpool; the Shepherd's Bush Hospital in London—the greatest of them all; there were military orthopaedic centres at Birmingham, Oxford, Leeds, Edinburgh, Glasgow, Aberdeen, Belfast, and Manchester. In all these hospitals a wide range of rehabilitation facilities was installed—departments of physiotherapy for massage and electrical treatment; departments of hydrotherapy, with whirlpool baths as the popular treatment; gymnasia for class exercises and fast-moving games; and curative workshops equipped for both light and heavy crafts. Rehabilitation programmes were devised for patients immobilized in bed owing to gunshot fractures of the lower limbs, as well as for those who were ambulatory. A full “working day” was followed with the various types of remedial and diversional therapy represented in a programme for each patient. But in the military hospitals of that day the cost of rehabilitation facilities—apart from massage, the simpler forms of electrical treatment, and remedial exercises—was not provided by the Treasury under the Army vote. It was the B.R.C.S. who came forward to fill the gap, and by generous gifts of money enabled these special centres to set up remedial departments on a scale hitherto unknown in Great Britain, or indeed elsewhere.

After the U.S.A. entered the war against Germany, the British scheme of special military orthopaedic hospital centres was adopted and brought to a high pitch of efficiency by Col. J. E. Goldthwait, of Boston, one of the leaders of orthopaedic surgery in America at that time. In the American scheme we see the first appearance of the occupational therapist as a member of the hospital rehabilitation team. Large numbers of young women were trained in Boston during 1917 and came to France in 1918 to work in the splendidly equipped American military hospitals, which at the time of the Armistice provided over 250,000 beds. This gave a great impetus to a new profession in the hierarchy of the “rehabilitationists” of the future.

The Period between the Wars.—The elaborate and highly organized rehabilitation departments of the wartime orthopaedic centres were carried over into peacetime and flourished during the period of greatest activity of the Ministry of Pensions. The great Shepherd's Bush Hospital, once the Mecca of surgeons from all parts of the Empire, ultimately reverted to its old functions as a general hospital under a Board of Guardians. The curative workshops, alas! were dismantled. In the early years after the war it was found that the planned rehabilitation day with its disciplined programme could not be transplanted in its entirety to civilian hospitals. In any case, both accommodation and equipment were lacking. Remedial measures, however, were provided in plenty by the rapid development and expansion of massage departments in hospitals where no such developments had existed before. Occupational therapy in Great Britain was fostered mainly in the mental hospitals.

Rehabilitation in its modern guise came back into the picture during the period 1935–9, stimulated by the publication of the findings of (1) the Fracture Committee of the B.M.A. (1935); and (2) the Interdepartmental Committee of the Ministry of Health and Home Office on Accidents (1939). These reports

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found not only that there was a need for organized fracture or accident services in all large hospitals, but that after such hospital departments had made their maximal contribution to the functional recovery of the injured man or woman, in a certain proportion of cases something more would be required. For this final act of reconditioning, or rehabilitation as it now came to be called, special residential centres outside the hospital appeared to be necessary. During the present war, under the aegis of the Miners' Welfare Commission, a number of miners' rehabilitation centres have been established in England and Scotland, and are in full activity. More recently non-residential centres for dockers have been set up in the ports of Liverpool and Manchester. These "day centres" provide a full and varied programme of diversional and remedial pursuits and deal with the after-effects of illness as well as with accidents.

Medical Rehabilitation To-day

We have now brought our story down to the present day. As the result of the experience gained during the five and a half years of the war which has so recently ended in Europe, we have become even more conscious of the significance of both *medical* and *social or industrial* rehabilitation. The whole conception has assumed a more dynamic form. But, as I have tried to show, rehabilitation is not a new idea. During the Second World War the hospital rehabilitation schemes developed by the Emergency Medical Service of the Ministry of Health, and by the hospitals of the fighting Services, have in essence reproduced the pattern of the military orthopaedic centres of the First World War. To see the full medical rehabilitation programme in action in an E.M.S. special centre is a stimulating and inspiring experience. Each patient has his day mapped out, and he goes from one department to another in accordance with his special needs. In such hospital rehabilitation departments, patients who are likely to regain full fighting or industrial capacity in a relatively short period can be submitted to strenuous types of reconditioning. But in order to witness the most powerful and intensive reconditioning programmes we must go outside the hospitals and visit an Army Convalescent Depot, an R.A.F. Rehabilitation Centre, or a Miners' Rehabilitation Centre. Here we can see the application of the supreme tests of fitness and agility.

What lessons have we learnt as a result of all this experience? How much of this pattern of intense and sustained activity can be applied to the sick and injured during in-patient treatment and convalescence in our hospitals in peacetime? The experience of the E.M.S. has emphasized two facts: first, that rehabilitation facilities exist not only for the injured but also for the sick; and, secondly, that for all patients in bed, unless acutely ill, a suitable rehabilitation programme can and should be instituted in the early days of the disease or injury. The basis of such an active regime is movement, as opposed to rest and relaxation; movement prescribed in the form of individual exercises or in simple "class" exercise under the direction of the physiotherapist or ward sister. The occupational therapist is also to be introduced at an early stage, and the most suitable bedside craft or diversion chosen for each individual patient. For patients whose illness or disability necessitates a long stay in hospital such active measures have a special value in preventing certain complications to which bed-fast patients have always been liable. This was known to Hippocrates. The large-scale experiment of the Ministry of Health in *medical* rehabilitation, conducted mainly in *ad hoc* hospitals, has stimulated the civilian hospitals to review and overhaul their existing facilities. In the departments of physiotherapy and in the training of physiotherapy students, greater emphasis is now laid on the use of active rather than passive methods of treatment. There is also a move to set up separate rehabilitation huts or departments where a full day programme can be offered to selected groups of patients whose occupation or disability calls for such special attention. Hospitals are also becoming more aware of the need for a more direct link with the stage of social and industrial rehabilitation. Hospitals which have been slow to encourage an almoner service, or have misused the almoner for the purpose of assessing and collecting contributions, are beginning to realize the necessity for the attachment of social workers to all the main clinical departments. Furthermore, they are learning to open their doors to the entry of Ministry social officers from the

outside. This is all to the good; it represents a step forward in the fusion of curative medicine and social services in a co-ordinated scheme for the benefit of the hospital patient. Such are the immediate lessons to be learnt from the experience of the last few years.

There is now another side of the picture to be considered. We must realize that we are still looking at medical rehabilitation through the spectacles of total war, with its increase in tempo and intense stress on the minds and bodies of men and women. The urge has been to return the man (or woman) to the fighting line or workshop at the earliest possible moment and to cut down periods of incapacity by a degree which can be demonstrated to all by the figures of the statistician. Medical rehabilitation, in our present mood, has come to mean an intense tightening up—a hardening process, with speed as its prime mover. We may well ask ourselves whether there is no longer a place for rest and relaxation during and following illness or accident. A regime consciously or unconsciously designed during war to provide for the needs of fit young men or women, at a time when there is unity of purpose in the nation, may not of necessity be suitable for a society which, in Great Britain in ten years, will present an increasing proportion of elderly folk who must continue to work. To cut down, by the most intensive form of rehabilitation, the incapacity period for a particular illness or accident by, say, 2.5 days may not in the future appeal to members of a society which comes to think of work, rest, and leisure in terms of human happiness, "the good life," rather than in terms of individual industrial output. This is not to say that the period of convalescence should not be better planned in the future; purposive activity remains the keynote of recovery. For, as Hippocrates taught, "exercise strengthens and inactivity wastes." But in any comprehensive rehabilitation plan there is a time and a place for both mental and bodily rest as well as action. I believe that there will still be room for the old-style convalescent home—the rest home—but equipped with facilities for diversion and recreation, to provide for a stage in recovery which precedes the final act of reconditioning. Less strenuous measures of rehabilitation will also be required by that large section of the community, mainly middle-aged, who are the victims of the various forms of chronic rheumatic disease.

It will thus be necessary, in the future planning of schemes of rehabilitation, to preserve that harmonious balance between rest and activity which is best calculated to restore the sick or injured man or woman to a state of maximum health and happiness.

EPSOM COLLEGE IN 1944-5

At the 92nd annual general meeting of Governors, held on June 22, Lord Leverhulme, the president, referred to the new Education Act and said that the good news that Epsom College and all other public schools in the country were safe in their independence at least for some years to come was a result of the patient work of the Governing Bodies Association, the Headmasters' Conference, and other bodies. The new Burnham Scale would affect salaries as a whole, but, as many felt that the new scale was not generous enough to graduates or to headmasters, most public schools would wish to pay more. A fair and reasonable post-war salaries scale at Epsom was now being considered. The fees, too, would have to be increased, because not only did they not cover the cost just before the war, but a heavy rise in expenses must occur when wartime restrictions were removed. Two events were imminent—namely, the College Centenary and the War Memorial.

Referring to the finances during 1944, Lord Leverhulme said that the small surplus on the school account would have been more by some £1,300 but for the V bombs, which caused the sending home of boys not taking public examinations two or three weeks before the end of the summer term, for which an allowance was made to parents. The numbers of boys during 1944-5 showed an increase of 15 over the preceding school year, and it was confidently hoped that the school would have its full complement of 500 boys in 1946. With regard to new benefactions, the president stressed the value of the bequest of the late Mr. J. W. Loader Cooper founding scholarships for sons of solicitors, and of the Eastes Trust, the income from which would go in the relief of doctors of either sex, less than 60 years of age, or widows, and also to educate children of medical practitioners.