

INDUSTRIAL/OCCUPATIONAL PHYSIOTHERAPY: A NEW CHALLENGE

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"S.A. lost 29 million working days . . . lecturer".

This heading appeared in a Cape Town newspaper in September 1977. The speaker was addressing delegates to the Institute of Public Health Congress in Cape Town. He stated that industrial safety in South Africa, where 2 000 workers die annually, left "much to be desired".

The lecturer, Dr. M. Barry, of the Department of Public Health at Witwatersrand University, stated that 335 000 workers were injured annually; of these 31 000 suffered permanent disablement. He said there had been a drop in the death rate from 4 in every 1 000 workers in 1913 to 1.29 per thousand in 1975. Every year the Republic lost 29 million working days, and the Workmen's Compensation Fund paid out approximately R25 million in compensation, rehabilitation and medical expenses. Furthermore, Dr. N. Stutterheim, President of the Association of Scientific and Technical Studies, speaking to over 500 delegates at the National Occupational Safety Association (NOSA) convention in Johannesburg in April, 1978, stated that it is estimated that in the current year over 250 000 people will be victims of "on the job" accidents serious enough to keep them off work for at least one day. Dr. Stutterheim also said that although there is a downward trend in disabling injuries in South Africa (a drop from 4% in the 1960's to 2.3% in 1977, which is lower than the present American figure of 2.6%) there is no room for complacency. He said we should make determined efforts to eliminate causes of accidents. At the same convention the General Manager of NOSA reported that 110 000 hands, 50 000 feet, and 40 000 eyes would be badly injured; 32 000 men and women permanently maimed, several thousand so badly hurt that they could never return to their jobs and more than 2 000 workers would be killed.

In the United Kingdom 13 million working days are lost annually due to industrial accidents (Hayne, 1977). There are 90-100 physiotherapists working in industry in the British Isles, of whom 81 belong to the Association of Chartered Physiotherapists in Industry (ACPI). These ACPI members can be found in most of the major industrial concerns in Britain and at such varied locations as Heathrow Airport, Shell Centre, Marks and Spencers in London, Atomic Energy Research Establishment, steel plants, chemical industries, and many others (Hayne, 1976). In addition, Hayne states in his Physiotherapy Fellowship Thesis, 1976, "there are three main functions of the physiotherapist in industry: to provide a fully comprehensive treatment service for the employees, reasonably located in relation to their place of work; to prevent disease and injury, especially of occupational origin; to provide education and advice as necessary, related to health, safety and welfare of the employees. This can best be achieved by working in combination with the other members of the health and safety group".

In order to place the British industrial physiotherapist in world-wide context a survey of member countries

of the W.C.P.T. was undertaken by Hayne (1973-1976). In this survey he established that Sweden, Norway and Denmark have the largest number of industrial physiotherapists, followed by Holland, France and Germany. It is interesting to note that in this survey in the British Isles massage techniques are used as part of the normal treatment schedules of 73% of all industrial physiotherapists.

In the December 1977 issue of the *Industrial Physiotherapist*, the newspaper of the A.C.P.I. in Britain, the editor announces that "the Swedish Physiotherapy Ergonomics Group (P.E.G.) has agreed to a one-year trial period of membership with the A.C.P.I. This is the first important step towards the creation of an international Industrial and Ergonomic Physiotherapy Group. The editor also states that "the Swedish P.E.G. has already created links with their colleagues in Norway, Denmark and Finland, and in the same way the A.C.P.I. has American, Australian, and South African Associate members who will hopefully create their own groups in the future. The foundations are laid. Now let us all start building."

SWEDEN

The Swedish Physiotherapists Ergonomics Group was founded in 1973, beginning with 35 members working in various industries and companies as part of the Occupational Health Team. The membership now stands at 259; 30% are employed by local authorities, 50% are in private industries and 20% are private practitioners with industrial clinics.

The Swedish industrial physiotherapist works as a member of a team consisting of a doctor, nurse, engineer, and secretary. The majority of physiotherapists devote half their time to routine treatments and the other half to shop-floor ergonomics and education of the employees.

As the normal education system for physiotherapists in Sweden does not deal with the subject of ergonomics and occupational health in any detail, the Swedish Physiotherapy Association in conjunction with the Swedish Employers Federation has organized three courses in these subjects. The courses now run for four weeks spread over six months. Every course has been over-subscribed (Cardell 1977).

DENMARK

In 1972 a group of Danish physiotherapists established their equivalent of a Specific Interest Group of the Chartered Society of Physiotherapy. There are 50 members working full-time in industry as consultants and training workers in the principles of ergonomics. Training courses are available at the Technical University of Denmark.

CANADA

"Physiotherapists have a valuable rôle to play in the community, beyond the treatment centre or hospital, i.e. an on-going physical maintenance or fitness programme" (Senzilet, 1977).

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Shaw (1977) in an article "Back injury prevention in a hospital accident prevention department" recommends a staff education programme in hospitals, advising management on lifting equipment and serving as consultant physiotherapists to hospitals.

FINLAND/AUSTRALIA

McPhee (1978), an occupational physiotherapist in the Occupational Environmental Health section of the University of Sydney who is involved in research, teaching and consultancy, states that much is going on in Finland in occupational health and in particular occupational physiotherapy, and that the charge physiotherapist at the Institute of Occupational Health in Helsinki is involved in research and teaching, together with consultation work.

McPhee has recently returned from a three-month Travelling Fellowship granted by the Australian government to U.S.A., Canada, Britain, Scandinavia and Europe and expresses surprise at the lack of initiative taken by physiotherapists in the field of occupational health and ergonomics, but feels that the situation in Australia is ripe for the development of the occupational health physiotherapist. "We have", she writes, "an upgrading in the standard of undergraduate training which is making our therapists more scientific in their approach, and hopefully more questioning of the system. With this questioning of course, comes change, and such well trained graduates are ideal to work in prevention teams and in the research that is so badly needed".

Shaw (1977), a lecturer on safety and occupational health in Australia, writes on the rôle of the physiotherapist in accident prevention, "where the fundamental aims of preventive physiotherapy are to develop good postural habits; to lay down guidelines to avoid skeletal and ligamentous strains; to develop good breathing control; to teach habits of general relaxation". She emphasizes the importance of the rôle physiotherapists can play in occupational health.

ERGONOMICS IN BRITAIN

Ergonomics is the scientific study of man in relation to his work, and there are now six physiotherapists in Britain who are practising as graduate ergonomists. Birmingham University ran a course on ergonomics in January 1976, attended by nine industrial physiotherapists from the United Kingdom and one from Norway. The course included amongst others, such subjects as the principles of lifting and handling, the problems of working postures, discussion of equipment design studies, the physiological techniques used in ergonomics for the measurement of strain during physical work and a case history as an example of the introduction of ergonomics by a physiotherapy unit in a manufacturing company presented by Hayne (1976).

In Britain, industrial ergonomics is practised at three levels:

University research department
Industrial ergonomics department
Ergonomics team composed of non-graduate members of the Health and Safety Group including physiotherapists (Hayne 1976).

In conclusion, as McPhee (1978) says "the situation in Australia is ripe for the development of the occupational physiotherapist". Cannot the same be said about the situation in South Africa?

CAN PHYSIOTHERAPY PLAY A RÔLE IN OCCUPATIONAL HEALTH IN S.A.?

The future is full of possibilities and challenges. The involvement of the South African physiotherapist in industry, in the occupational health team, in community medicine, in the Department of Education, in the Department of Labour, in a preventive rôle, in a consultant rôle, are all there for the taking; *but* it is up to the individual. We must take the initiative. We must make the effort by:

- forming a special interest group;
- organizing workshops;
- communicating with our colleagues;
- sharing knowledge and information;
- informing the authorities of our potential;
- interesting the lecturers' group in under- and/or post-graduate training in community medicine, occupational health, preventive physiotherapy in general, and ergonomics in particular.

If we can achieve all these things we may well be in a better position to obtain the full recognition of our profession and commensurate financial improvement that we have been striving for for so long.

Would any member interested in the above, or employed in industry, commerce or occupational health, please contact the writer with a view to "starting the ball rolling".

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