to come first in every Indian's life. Parents also know that in their turn the offspring will take great care of them in later life, as they did with their own parents. Capitation colleges apart, course and examination fees are not excessive and are waived for students from scheduled castes and tribes. Those few students who live in student hostels must pay for their board and lodging, and since such accommodation is limited most have to share a bedroom with one or two others.

Several of the medical schools I visited, regularly take elective students from Australia, Britain, and other European countries but there is no provision of an elective period in the Indian medical curriculum. I was given the impression that students and staff would welcome one. Nonetheless, the reality is that most parents cannot begin to afford to send their child to the West, and those few who could afford it have the problem of restricted foreign exchange. Thus any plans to introduce a reciprocal scheme for student electives would depend on the countries concerned offering some form of financial help.

Conclusion

There is widespread concern that standards of medical education in India are declining and that the undergraduate curriculum is inappropriate. And although India is, no doubt, still producing good doctors standards vary to an alarming extent. That most young doctors—irrespective of their ability—emerge with a jaundiced view of the integrity of the medical system is probably no bad thing. It prepares them for the future; they have to be politically aware. Being bright and highly motivated is simply not enough.

Needs and Opportunities in Rehabilitation

Occupational rehabilitation and return to work: 1—General services

DAPHNE GLOAG

"It is not well enough understood that disability does not mean inability." This statement appears in one firm's policy for employing disabled people[1]; but many disabled people have dead end jobs below their potential[2]—or none. Yet disabled workers have above average attendance and safety records,[3] and more knowledge of particular disabilities[4] among employers would help to dispel misunderstandings.

Occupational rehabilitation is concerned, firstly, with helping people after illness (or in the course of it) and after injury to get back to their former jobs, or to more suitable jobs with their former employers, and, secondly, with preparing people for work and helping them find jobs or training courses if they are unemployed. Many different individuals, services, and organisations, statutory and voluntary, deal with these aspects, and the manager of one employment rehabilitation centre (ERC) was concerned that they do not use each other enough and may be unaware of each other's roles. Some coordinator or coordinating body, he suggested, is called for.

Policies and practices

A new code of good practice urges employers to develop written policies on the recruitment and career development of disabled people and on help for employees who develop disabilities, distinguishing those whose disability does not affect their working capacity, those who are not limited in their type of work once they have the right aids and other practical help, and those whose options are limited but who are as effective as anyone else in the right job.[5] The legal "quota" of at least 3% of registered disabled people, if available, in a workforce of over 20[6] is seldom met,[1] and often not feasible since so many do not register; but the new code puts more emphasis on wider opportunities for disabled people whether or not they are registered. A recent TUC document gives advice and information about the recruitment, retention, training, and promotion of disabled people.[7]

The Manpower Services Commission (MSC) makes grants for special equipment and for adapting premises to permit a disabled person to be recruited or kept on (leaflet available). Besides aids in general production REMAP can provide one off aids (19 January, p 220). It is enormously important that health professionals and social workers as well as employers should know what aids, grants, and other benefits are available.[8] In addition, some jobs may be restructured in some way to bring them within the scope of a disabled person. Good will is not short among employers and the practices of some who have positive policies regarding disabled people are worth studying.[1] "Opportunities for the Disabled" is an organisation that will inform employers of possible disabled job applicants each month.[5] Local Committees for the Employment of Disabled People are useful in representing many different interests.

Some people with both longstanding and recent disabilities, including temporary ones, are handicapped by psychological and social problems, usually linked to their disabilities or to long periods off work or unemployed. In today's harsh economic climate the problems of these most disadvantaged people may seem intractable, but employment rehabilitation services, special work schemes, and sheltered work attempt to help them. The various facilities and services[9] (see box) may at least help them to the starting line, as an MSC official put it, in the competition for jobs; but often better use could be made of the facilities, and more could be done informally, outside the services.

Role of medical services

"Medical services," said the manager of an employment rehabilitation centre, "are out of touch with the world of work." I have heard the same complaint put very strongly by disablement resettlement officers (DROs) and by a local Committee for the Employment of Disabled People: doctors in general are not

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sufficiently aware of the real nature of their patients' work and what precisely they would and would not be capable of. Signing someone off as fit for work should take account of his or her particular work circumstances and if necessary specify the kind of tasks or conditions of work to be avoided. Doctors' referrals to the Disablement Advisory Service often come too late. They may not consider ERC courses at all, or even the central place of work for most people's rehabilitation.

Many doctors would agree with these criticisms; they should help patients to return to work rapidly, says Chamberlain, enlisting help from employers and services sooner rather than later.[2] If only all GPs, said an ERC manager, knew the name of their local DRO. Trial spells back at work, reduced hours per day or days per week, and flexible working hours are all possible; and the job itself may be altered [7 10-12]—often demands can be reduced, job methods can be changed, or the job can be modified to remove difficult aspects. Simple adjustments may also be made to aid rehabilitation.[1 13] Clearly advance warning of problems and needs—including the need for aids and adaptations—is important for the employer. To bridge the gap between the work tolerance achieved, say, in occupational therapy, and that required by a job an ERC course may help if a graduated return to normal working is not possible.

Much rehabilitation does take place within open employment, thanks to the various kinds of work adjustments that make possible a return to work.[13] Much of the day to day work of occupational health services is concerned with the rehabilitation and alternative placement of employees.[10 14] It is essential that patients' own doctors should be in touch with occupational physicians from an early stage. If there is no occupational health service obviously the doctor may need to do more.

The Employment Medical Advisory Service (EMAS), part of the medical division of the Health and Safety Executive, has a central role. It is a nationwide service of doctors and nurses trained in occupational health who can advise on patients' or employees' medical suitability for different types of work. EMAS also provides doctors and nurses for ERCs, and for working with DROs to help people with health problems to find suitable jobs.

Rehabilitation centres and some hospital rehabilitation departments have a work component as well as the services of a DRO, but often there is a regrettable gap between medical rehabilitation and return to work or employment rehabilitation. The placing of an employment rehabilitation centre in the grounds of Garston Manor Medical Rehabilitation Centre was an attempt to bring the two closer together, and the Passmore Edwards Rehabilitation Centre at Clacton-on-Sea has a new experiment. An occupational psychologist is a member of the team; he does a series of assessments leading to a full report. This has not so far, with the high level of unemployment, much improved people's chances of finding jobs; but it seems to have helped in a broader way—for instance, in pointing former manual workers who have been injured towards further education and training (J B Millard, personal communication). Could doctors more generally, in rehabilitation departments and elsewhere, be more in touch with occupational psychologists, using them perhaps for a few hours a week?

Structured rehabilitation in open industry

In addition to the informal rehabilitation that is widespread in open employment, a few industries have some more structured set up. The miners' rehabilitation centres,[9] now under the NHS, are special examples of intensive rehabilitation facilities for a particular industry and geared to its problems. Vauxhall Motors, Luton, has an interesting scheme for combining rehabilitation with very early return to work.[1 13 15] As well as having physiotherapy, workers use adapted machinery for providing strengthening movements or therapeutic positions, but their work is part of the production line and they do not lose pay. This option, I was told, is more popular than continued sick leave, and a man in the centre told me warmly how much it had improved his morale. Some important elements of this centre are capable of wider application informally in smaller firms.

Some forms of help for disabled people

Disablement resettlement officers, employed by the Manpower Services Commission (MSC) and working mostly from job centres, find jobs for disabled people (if necessary after the employment rehabilitation or vocational training they may recommend), liaising both with employers and with medical and other services.

Employment rehabilitation centres (ERCs), run by MSC, offer courses (usually of about six weeks but sometimes much longer) to give assessment, vocational guidance, and work practice to people who have been out of work through illness or injury or other reason, and also to assess employees who become disabled; clients try out different kinds of work, and are if necessary recommended for a training course.

Vocational assessment teams (ASSETS) are to be set up by MSC, in areas not served by ERCs, to give basic assessments followed by assessment and job trials in the course of work for local employers (see text).

Job rehearsal, during, at the end of, or immediately after an ERC (or ASSET) course, provides up to three weeks' experience in a real job, with allowances still paid by MSC.

Job introduction is a trial period (usually six weeks) for which MSC pays the employer a subsidy towards the wages of someone who has difficulties; at the end of it he or she is taken on if suitable.

"Individual Training Throughout with Employer" and "Release for Training" schemes (supported by MSC) provide for, respectively, disabled people just taken on by a firm and disabled people already in jobs but in need of training or retraining.

Sheltered Placement Schemes (previously known as sheltered industrial groups) enable severely disabled people to work in open employment, in small groups or individually, within their capacity; the person is employed and paid by a sponsoring organisation (a local authority, voluntary body, etc), which is reimbursed by the employer for the work actually done—the cost of the scheme being shared between the sponsor and MSC (see text). Other settings for sheltered work are provided by Remploy, local authorities, and voluntary bodies.

The Blind Homeworkers Scheme enables severely disabled people, not necessarily blind, to work at home self employed (perhaps after training) with the help of a tax free supplement from the local authority to provide a minimum guaranteed income. (For self employment see also ref 8, p 124.)

Remote work units, in a Department of Trade and Industry project (see figure), allow disabled people to work at home, employed by a firm or self employed, in computing and information technology.

Resettlement services

Enthusiastic DROs I have met were not blind to the limitations of their posts—in particular, the fact that they are only one rung, and regrettably a rather lowly one, on the career ladder; they would not perhaps disagree with the criticisms of Stubbins, an American observer, that while doing a good job within the imposed limits they are not required to be professionals, or to be versed in the science of vocational rehabilitation. Stubbins also points out that improving training and status might not radically improve the service since "vocational rehabilitation is a complex of social service functions that is difficult to carry on" within this particular organisational setting.[16] The real need here is perhaps for health and social service professionals to be actively concerned and in closer touch with the DRO service. The MSC has concluded that this service should for the present continue to be concerned basically with matching clients with suitable jobs and not the rehabilitation function of "effecting changes in clients,"[17] though they may recommend ERC and vocational training courses.

ERCs do have a social worker and occupational psychologist and work in some depth with clients to assess and give work experience, usually for six to eight weeks. In 1979-80, when admittedly conditions in ERCs and in industry differed somewhat from those of today, under half of those who had been through ERCs were in jobs or training leading to a job six months later, and 20-30% of the total were likely to have been anyway; an MSC report concluded that in this and other ways the ERC system could be made more effective

even in an unfavourable economic climate.[17] As a result of the MSC study recommendations were made and there have been experiments and developments. There are plans for ERCs to concentrate more on the recently disabled. Now a quarter of ex-clients have jobs, as distinct from training places, and the rate is said to be improving—partly because of improvements within ERCs: new methods of assessing suitability for types of work; attempts to develop the skills needed for work that offers the best openings in the locality; and helping disabled clients not only to identify the most suitable kinds of job but also to find vacancies, apply for the jobs effectively, and surmount their disadvantages at interview (MSC, personal communication).

The most promising innovation seems to be the vocational assessment team (to be known as ASSET) shortly to be introduced, in areas not served by ERCs, in the form of pilot projects. The staff, including an occupational psychologist, will have facilities for basic assessments, after which clients will have assessment and work trials while doing real jobs for local employers. Advice will be provided by EMAS. Trials in real jobs that cannot be reproduced in a training setting, such as selling, could perhaps be used more often by ERCs. In addition, job rehearsal and job introduction schemes (see box) are well established devices that perhaps could be used more.

Only a few ERCs still employ remedial gymnasts, and a few have multigyms. Clients have been found to have a lower physical work capacity than their employed counterparts, and experimental fitness courses have been tried with promising results.[18] Clients could go to local facilities for some remedial gymnastics; but, it has been said to me, value lay in the daily interaction as well as the exercise when centres had their own facilities.

Sheltered work

Sheltered work is in short supply.[2] In February 1985 there were 15 500 jobs, mostly in workshops and factories run by Remploy (with government funding),[9] local authorities, and voluntary bodies (MSC, personal communication). Remploy offers disabled people job security and support; wages are usually modest because most of the jobs are, but pensions are provided. It has a new training scheme. In general, more provision is thought to be needed in particular for those whose productivity is less than one third of normal.

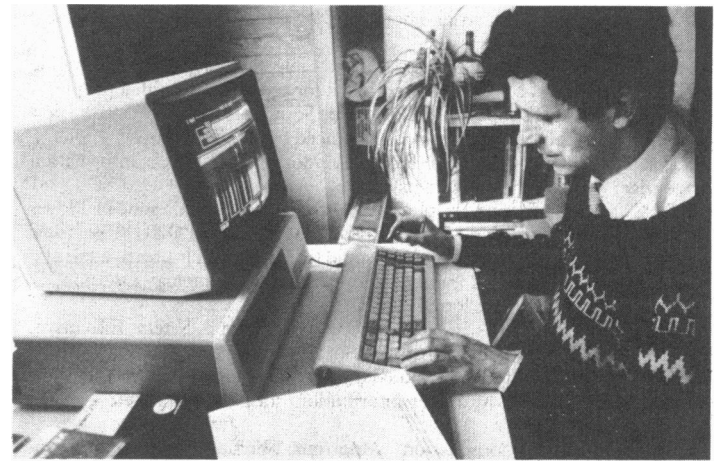
Only about 1100 of the 15 500 sheltered jobs are in sheltered industrial groups[19] (see box), to be renamed sheltered employment placements. These offer disabled people whose productivity is low a full wage without any loss to the firm because of the subsidy: the cost of the difference between what the person is paid and what the work done is actually worth (the ratio varies) is shared between the sponsoring organisation and the MSC. There are great advantages —integration in an ordinary work environment, variety of jobs, and flexibility; individuals as well as groups can be "sheltered." The scheme deserves to spread more quickly—and it costs less than other sheltered work.

Vauxhall Motors at Luton has a "protected work centre" for employees who become disabled and have no hope of going back to ordinary work.[1] They earn full rates of pay but have special machinery, seats, and other facilities.

Some disabled people are capable only of part time work but this means losing out on the usual benefits. Many of them are too bright for adult training centres, and they desperately need some provision to save them from endless unemployment.

Training

Long waiting lists for training are unhelpful for those who are disadvantaged, especially after injury or illness. Queen Elizabeth's Training College for the Disabled, Leatherhead,[9] has a flexible system for some of its vocational training courses, arranging an extra instructor and room for a parallel course when necessary. Two other features here have general relevance: providing work experience in a real job outside as part of training, and employing for a day or so a week several retired businessmen with contacts in different parts of Britain to help students find jobs (M Clark, personal communication).



Man with multiple sclerosis, on the full time staff of the London Electricity Board but working at home, converting management data into graphical form—one of 60 "remote work units" in a pilot project of the Department of Trade and Industry, which provides training and the equipment for work in computing and information technology and, usually, finds jobs that can be done in this way (see its leaflet *Information Technology and Remote Working*). The European Community is funding a further experiment to suggest guidelines that could be used by other agencies for more widespread "remote working."

Within open employment, the London Borough of Camden provides an example of special training opportunities (such as day release and educational courses) for disabled people of the right potential, who may be recruited into a "supernumerary manpower bank" specially for the disabled until suitable posts appear.[1]

Training for work with computers, whether operating, programming, or other applications, opens up careers (sometimes pursued at home) for even severely disabled people. One promising course is run at the Stoke Mandeville spinal injuries unit,[20] where a patient's success does not seem to be limited by previously modest attainments in education and work. In 15 months 12 people—about half of those who took the course seriously—have found work (M Fountain, personal communication). In a recent project four severely disabled graduate engineers did computer based research for a university department, after training, that provided income amounting to about three quarters of the costs as well as satisfying work.[21] There are useful organisations concerned with computer work for disabled people[8] and a Department of Trade and Industry project (figure).

In the next article I will look at occupational rehabilitation in psychiatric conditions.

I am grateful for help from many people, especially Mr J Bromage, Mr B Swindell, and Mr T Gawn, Manpower Services Commission; Drs M Anne Chamberlain and M Kettle, Rheumatism Research Unit, University of Leeds; Mr J Corcoran, Employment Rehabilitation Centre, Leicester; Drs Felicity Edwards and G Krishna, Health and Safety Executive; Mr I Humphries, Employment Rehabilitation Centre, Perivale, Middlesex; Mr F Sanders, Leicester Job Centre; and Mr E Selby, Remploy Ltd (Acton), London.

Addresses

Association of Disabled Professionals The Stables, 73 Pound Road, Banstead, Surrey SM7 2HU (concerned with improving rehabilitation, education, and training facilities and employment and career prospects; has a register of professional advisers to help individuals)

British Computer Society—Committee for Disabled 13 Mansfield Street, London W1M 0BP

British Institute of Industrial Therapy 99 Leigh Road, Eastleigh, Hants SO5 4DR

Community Service Volunteers—Able-to-Help Scheme 237 Pentonville Road, London N1 9NJ (volunteer work for physically disabled people)

Countrywide Workshops 17c Earls Court Square, London SW5 9BY (new venture to promote quality goods produced by disabled people)

Crafts Council 12 Waterloo Place, London SW1Y 4AU (information service; grant and loan schemes)

CRYPT (Creative Young People Together) Crypt Foundation, 21 Plover Close, East Wittering, Chichester, West Sussex PO20 8PW (new charitable trust to help disabled people to develop their creative talents)

Department of Trade and Industry Information Technology Division, 29 Bressenden Place, London SW1E 5DT

Employment Medical Advisory Service Health and Safety Executive, Magdalen House, Stanley Precinct, Bootle, Merseyside L20 3QZ

Home Opportunities for Professional Employment 96 Greencroft Gardens London NW6 3PH (provides information, ideas, contacts, etc—not an agency)

Manpower Services Commission Moorfoot, Sheffield S1 4PQ (NB produces a wide range of leaflets for disabled people and employers)

Opportunities for the Disabled—London office 1 Bank Buildings, Princes Street, London EC2R 8EV

Queen Elizabeth's Foundation and Training College for the Disabled Leatherhead, Surrey KT22 0BN

Remploy Ltd 415 Edgware Road, London NW2 6LR

Royal Association for Disability and Rehabilitation 25 Mortimer Street, London W1N 8AB (research, information and publications; publicises advantages of employing disabled people; running "EmployAbility" campaign in second half of April)

Royal National Institute for the Blind 224 Great Portland Street, London W1N 6AA

(See *Directory for Disabled People* for further addresses relevant to training and employment[8])

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Medicolegal

The Gee case: evidence from America

CLARE DYER

When the court rose last week for the Easter vacation the trial of Dr Sidney Gee's libel action against the BBC had notched up more than 70 days in court. Before the adjournment the court heard evidence from Dr Gee's fourth expert witness, Professor T D Danowski, clinical professor of medicine at the University of Pittsburgh and director of the Institute of Graduate Medicine at Shadyside Hospital, Pittsburgh.

Professor Danowski told the court that he was a fellow of the American Association for the Advancement of Science and of several other scientific and medical societies, including the Endocrine Society. He was currently a member of the editorial boards of *Metabolism* and *Clinical Pharmacology and Therapeutics*. In the 1960s he had written a four volume work on clinical endocrinology and edited a two volume work on diabetes mellitus. He was also the author of a popular book on weight control. He had written articles on obesity in connection with diabetes, the thyroid, and the heart.

In 1964, he continued, he had published the results of a study in which he had attempted to duplicate with desiccated thyroid some of the features of spontaneous thyrotoxicosis, and particularly had tried to work out the total amount of thyroid hormone that had to be administered to begin to duplicate spontaneous thyrotoxicosis. A purified preparation of desiccated thyroid (Proloid) was administered to healthy young male adult prisoners in dosages of three to 25 grains a day. At that time, he said, Proloid contained more triiodothyronine (the biologically active hormone) and less thyroxine than was present in ordinary commercial desiccated thyroid. Comparing his dosage in that study with Dr Gee's dose of 250 mg thyroid extract a day, he said that Dr Gee's dosage would be the equivalent of four grains in terms of total hormonal content, both thyroxine and triiodothyronine.

Professor Danowski said that the subjects in his study were given three grains of Proloid for two weeks. This was increased successively at two week intervals to 10, 15, 20, and, finally, 25 grains a day, and the 25 grain dosage was maintained for a total of four weeks. Ten of the 17 men continued in the study, which lasted for four months, until the daily dosage had reached 25 grains. The seven others were either transferred from the institution or withdrawn from the study—for example, because they were put into solitary confinement, or were injured in fights. He did not believe

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