MEDICAL PRACTICE

Contemporary Themes

Workshop for Disabled Survivors of Severe Head Injury

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Summary

Existing services for the disabled do not cater for the needs of lame-brain survivors of severe head injury who may be capable of productive work though they may never become employable. A grant from the Nuffield Provincial Hospitals Trust made it possible to set up in 1967 a special workshop in premises provided by the regional hospital board. The hospital management committee assumed financial responsibility for the centre after three years, and after five years the Department of Health and Social Security purchased adjoining premises, which will double the present accommodation for about 35 persons. Though 45% of the 101 patients attending the workshop have returned to work, no financial support has yet been received from the Department of Employment. A suitably staffed hostel is needed for patients who live too far away to travel daily to and from the workshop. This undertaking has shown a need for special facilities for some of the victims of severe head injury, who differ in many important ways from other disabled persons.

Introduction

In 1961 members of the staff of the department of medical social work at the Birmingham Accident Hospital saw a need to provide some sort of interest and pastime for the lame-brain survivors of severe head injury. With the support of many of the less severely disabled patients and of members of the medical and other staff of the hospital the Head Injuries Club was started. Its twice-monthly meetings in a room in

the hospital were attended by a score or more patients, each accompanied by a relative or close friend. Those with common troubles took comfort from sharing them, and for the patients it was a welcome change in a life that had come to hold little prospect of change.

The organizers soon realized, however, that the club did little to restore a sense of purpose and achievement to those for whom these were still possible through some sort of productive effort. Accordingly, in 1963 they decided to establish a workshop for all but the most severely disabled patients so that, however simple the task, they could feel they were back at work and also, for five days a week, to ease the burden on their families.

Premises and Staff

The Nuffield Provincial Hospitals Trust gave £5,000 to acquire premises and £2,000 a year for three years to staff and maintain them, provided that the costs would thereafter be borne by another body. The Selly Oak (now South Birmingham) Hospital Management Committee supported the venture, and after some administrative disagreements on whether the patients were the responsibility of the welfare departments or the Health Service the Birmingham Regional Hospital Board helpfully provided a building which had been a public dispensary. Its spacious and well-lit waiting hall provided ample space for machines and patients (see fig.) and there were smaller rooms leading off it for patients who preferred to work alone and for meals, rest, and an office. Lavatories were modified to accommodate patients in wheelchairs and those needing assistance.

The intention was to approach firms for suitable work and thus play a part, however small, in the productive effort of the nation. The manager was chosen for his knowledge of industry, his humanity, and his interest in the project, which he proved by accepting a starting salary of only £850 a year, to which the Whitley Council agreed only after prolonged and vigorous insistence. Further efforts to increase the salary

General view of main workshop.

were more successful as the success of the venture became recognized, and it is now on a scale of £1,752-£2,052 in the general administrative grade. The Nuffield Provincial Hospitals Trust insisted that one member of the staff should be an occupational therapist (present salary £1,635).

This staff of two was enough when the workshop opened in April 1967 for eight patients carefully chosen as suitable for the new venture. But as the number of patients increased and came to include severely disabled persons who needed help with feeding, washing, and in the lavatory an assistant manager was appointed (higher clerical grade: present scale £1,257-£1,572), followed in 1968 by an orderly (£18 a week). One of the patients took on simple clerical tasks such as typing letters and answering the telephone, and a part-time social worker was appointed in 1970 (£1,912 a year) to carry out studies and group therapy and to help the patients' families.

A special workshop subcommittee of the Head Injuries Club was appointed as a constituent body of the Head Injuries Rehabilitation Trust, a charitable trust established to offer guidance and support. The workshop subcommittee includes representatives of the medical, medical social, rehabilitation, and administrative staff of the Accident Hospital, which remains in many ways the parent body, and representatives of the work centre itself and of the hospital management committee, which accepted financial responsibility for the centre in 1969.

Patients

The number of patients attending has risen to about 30 at any one time, and since it opened 101 have been accepted, of whom 45 have returned to work. A few left of their own accord; in some cases it would be more accurate to say that they simply did not bother to come. Three patients who had caused physical damage were dismissed only when their behaviour threatened the safety of other patients. Necessary though this step was it was generally regretted and acknowledged as an admission of failure. Much of the success of returning patients to employment is owed to the efforts of the manager, but the local disablement resettlement officer's interest and co-operation have often been most valuable.

The first patients came from the Accident Hospital but applications were soon received from many parts of Britain. Now only a minority are from the Accident Hospital and not all come from the area served by the hospital management committee, or even from the Birmingham region.

An account of the patient's physical condition, behaviour, degree of independence, and other relevant facts must be submitted when applying. Those thought suitable for interview attend with a relative, and often with the medical social worker from their district, and are seen by a senior member of the medical staff and his colleague in the department of medical social work. Suitable candidates then visit the work centre and see the manager. Very few reject a place when offered but some accept and either fail to use it or stop coming after only a few visits. The previous employment of patients interviewed has been skilled in 5%, semi skilled in 20% unskilled (manual) in 50%, sedentary in 20%, and brain work (office) in 5%.

With few exceptions, those selected have suffered physical injury of the head and consequent damage to the brain. Applications have been received on behalf of "brain-damaged" persons and those with neurological disease. They are accepted if their condition closely resembles the effects of head injury, if they can be accommodated without denying a place to a head-injury victim, and for periods of up to six weeks at a time. At least twice a year all patients are reviewed by the staff of the workshop and by the surgeon who first recommended their acceptance.

NATURE OF WORK

Most of the main hall is occupied by eight machines costing £750 in 1967 for cutting and bending cardboard, which is then folded and stapled to form boxes. The necessary small tools cost £50 in 1967, and two stitching machines £260 in 1969. Much of the work can be done with one hand, standing at some machines and sitting at others. Generally the boxes are despatched plain, but at Christmas they are covered with festive paper and sold to hospital staff, to friends and relations of the patients, and to the public.

One room is occupied by two men who assemble ready-cut pieces of wood to form filing cabinets for the public health department, and another room by a woman who covers the cabinets. Though most patients are content to work together amid noise, others prefer quiet or their own company. Another side room is used for the most severely disabled patients who are confined to wheelchairs. Some of their jobs, such as sorting sackfuls of mixed nuts and bolts or assembling bath plugs or electrical fittings, would not be worth the manufacturer's while if they had to pay the current hourly rates in industry. Many patients show no great enthusiasm for work, whereas others are quietly industrious.

PAYMENT

At first a trades union representative advised against payments to patients, but later 10 shillings (50p) a week was paid to all irrespective of their ability and industry. In 1969 this was increased to 15 shillings (75p) and in 1970 to £1.25 in some cases, £1 in others, while some remained at 75p. The differentials were in recognition of the effort put into the work irrespective of the quantity or value of the goods produced. Gradings were reviewed every three months. Recently the system has been further modified so that the basic rate remains at 75p with reward rates of £1 and £1.25 a week, and a penalty rate of 50p a week has been introduced for those who have made too little effort. These gradings are also subject to review every three months.

The differential rates have provided some incentive and have not led to jealousy. It remains to be seen whether relegation to the penalty grade will stimulate the idlers. Dissatisfaction is confined to a few who regard the small sums as derisory.

DISCIPLINE

One of the objects of the workshop was to see how patients would respond to a working environment. Though it was intended that those who gave promise of returning to employment should have a foretaste of the need to be punctual, reliable, and persistent the presence of less able and responsible patients and the unpredictability of their times of arrival and departure made this almost impossible.

Survivors of severe head injury lack ability to concentrate, and they tend to wander about smoking, chatting or just waiting for time to pass. They can usually be induced to resume work, but for only a short spell. While most are docile, if not particularly biddable, others respond to any unwelcome requirements or suggestions in a manner that is at best uncomplimentary. Physical violence fortunately has been rare. The manager has had remarkable success in getting such persons to do some work, but the behaviour of those who have returned to work has been apt to cut short their employment. Nevertheless, some employers and workmates have shown remarkable restraint. A patient who leaves the workshop and later asks to return goes to the end of the waiting list, whereas a patient who leaves to take up employment but is unable to keep it is taken back at the first opportunity.

One of the most disturbing features has been the lack of sexual inhibition of some of the patients. When both sexes are affected unremitting vigilance and discipline are essential. Another consequence of the coming and going of patients and visitors is the risk of theft of possessions left lying about.

RECREATION

Lack of space has prevented the introduction of games and other diversions, and lack of transport has prevented the use of gymnastic facilities offered by the Y.M.C.A. In any event, opinions are divided about the propriety of giving some of the patients what they regard as a pleasant alternative to what they ought to be doing. There was, however, no doubt about the success of a week's summer holiday for which, in three successive years, the manager and the occupational therapist took a score or so of patients to the south coast, and in the process gave themselves a strenuous time that was not without its moments of anxiety.

Patients were required to pay half the cost of the holiday, the rest being made up from a number of charitable sources, with numerous acts of personal generosity by the manager.

TRANSPORT

Whenever possible patients use public transport, but many have to rely on ambulances and hospital cars. Hospital cars cost 7p a mile and ambulances 41p and the weekly cost is £10-£15. Because of shortage of staff in these services some patients arrive an hour or two late and others are called for an hour or more before the centre closes. The greatest inconvenience resulting from this unpunctuality is experienced in the homes of severely disabled persons whose relatives go out to work but cannot be away from the house while the patient is still there. When the hospital management committee assumed financial responsibility for the centre it came into the category of a day hospital, but until then the co-operation of the ambulance service was an act of grace, for which all concerned were extremely grateful.

RESIDENTIAL ACCOMMODATION

As the centre became more widely known some suitable patients had to be refused because they lived too far away. This prompted a search for residential accommodation. A hut

in the grounds of a country branch of the Royal Orthopaedic Hospital was modified as a bedroom and sitting room for four persons. The hospital management committee spent £500 on alterations, and the Sutton Coldfield Round Table gave a television set and furnishing and carpets. The staff of the hospital agreed to clean the hut, make beds, and prepare breakfast and evening meals for the five days a week but they had not the time to provide the help that more helpless patients need. A tribute is due to the administrative and nursing staff for doing work which they could reasonably have refused.

A further step has recently been taken towards returning some patients to independence in the community by arranging for them to stay at a Y.M.C.A. hostel instead of the Orthopaedic Hospital, and in one or two cases patients have been accommodated in hotels at public expense.

These arrangements have enabled more patients to be accepted at the centre, but the answer would be a hostel built (or converted) for the purpose and staffed by people with some knowledge of simple nursing but whose principal qualification is a willingness to do the strenuous work of looking after severely disabled persons with unpredictable behaviour and sometimes objectionable habits. In some cases a relative might accompany a patient and help to look after him or her.

Finance

The object that the goods produced in the workshop would bring a profit has been achieved only to the extent that they have been sold for more than they cost to buy. The centre has cost the hospital management committee £4,000-£5,000 a year to staff and maintain. The committee has regarded this as a proper expenditure on rehabilitation and continuing care such as a day hospital provides, and it has told the responsible subcommittee not to seek profits if it means accepting more able and therefore potentially more profit-making patients at the expense of the less able who are in greater need of what the centre provides. Nevertheless, the subcommittee continues to seek ways of increasing income without prejudice to the centre's therapeutic function.

The Department of Employment may provide financial support for persons undergoing rehabilitation, but what seemed to us an equitable proposal was rejected by the Department on the grounds that there were too few patients and that those expected to return to work were not separated from the others. This requirement is connected with the general policy that one government department does not provide money for an undertaking that is already being paid for by another. This policy is administratively convenient, but the needs of these patients overlap the areas of responsibility of more than one authority or department and are therefore apt to be referred by each to another.

The Future

Premises adjoining the work centre have recently been purchased by the Department of Health so that they could be converted, staffed, and equipped to cater for less severely disabled patients who are likely to return to work. With this extra accommodation the conditions for accepting patients can be relaxed, and since the extension is a separate, if semi-detached, building perhaps the Department of Employment will now provide some money.

Additional staff will include a second occupational therapist, more of the social worker's time, and a secretary. We also hope that a clinical psychologist will be appointed to the Accident Hospital and that he or she will be able to study the later results of head injury as well as the early stages seen in the hospital.

To those who have been responsible for the establishment, maintenance, and development of the centre progress has often seemed too slow and to lag far behind needs. The recommendation of the advisory council of the Head Injuries Rehabilitation Trust was that so far as possible the funds required for what should be acknowledged as a part of the National Health Service should come from the State, and it can be said with due gratitude that the State has emerged with much credit.

In writing this article I am but the scribe of many others, without whose imagination, patience, devotion, support, and guidance there would have been nothing to write about. I am confident that those that are not mentioned by name will agree with my expression of thanks particularly to Miss J. E.

Drake, secretary, and Mr. S. S. Harkness, treasurer, of the Head Injuries Rehabilitation Trust; Mrs. N. Kimmitt and Mr. H. F. Kinchin, respectively occupational therapist and manager at the work centre; Mr. P. P. Lockhart, group medical social worker; Mr. G. Myers, secretary of the South Birmingham Hospital Management Committee, and his successor, Mr. P. J. Roys; Mr. H. Proctor, surgeon, and Mr. M. B. Rickett, administrator, of the Birmingham Accident Hospital; Dr. Keith Young, deputy administrative medical officer of the Birmingham Regional Hospital Board; and the administrative and nursing staff of the Royal Orthopaedic Hospital (the Forelands) as well as other members of the advisory council of the Head Injuries Rehabilitation Trust and its subcommittees.

Hospital Topics

Femoral Artery Complications after Diagnostic Procedures

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Summary

Of 36 cases of arterial complications after femoral artery puncture 11 were excessive haemorrhage and 25 femoral artery occlusions. Soft arteries are more likely to tear than atheromatous ones, and this had occurred in 9 of the 11 patients. A high puncture, soft arteries, and a low cardiac output are important factors predisposing to thrombosis.

An aggressive policy is recommended for treatment of both conditions.

Introduction

Catheterization or even simple needle puncture of the femoral artery may cause haemorrhage or occlusion. Seidenberg and Hurwitt¹ reported 26 such complications, one of which resulted in amputation. They recommended early operation in all cases of iatrogenic arterial occlusion. McGraw² reported five major complications, one of which resulted in amputation of the leg—and another in the death of the patient. Bolasney and Killen³ reported 33 cases with no loss of life or limb, and emphasized that early operation was always indicated in these patients. Slaney and Ashton⁴ reiterated that when the pulse disappears after arterial injury a diagnosis of arterial spasm should not be made, and that early exploration is indicated.

Thirty-six cases of femoral artery complications after diagnostic procedures are reviewed here. The complications were of two types, haemorrhage and occlusion.

Haemorrhage

There were 11 patients who bled sufficiently from their femoral puncture sites for a surgical opinion to be sought. Of these, nine were patients with heart disease who bled after cardiac catheterization, one was a child with hypertension who had undergone a selective renal arteriogram, and only one was an atherosclerotic patient who bled after a femoral arteriogram through a simple needle puncture. Only two of the 11 patients were hypertensive. Only one, a 6-year-old boy with a ventricular septal defect, required a blood transfusion, and he stopped bleeding after nine hours.

Two patients required operation. One, a woman of 51, bled profusely from the moment the catheter was withdrawn. Pressure over the artery was ineffectual in slowing the flow. She was operated on almost immediately and a large retroperitoneal haematoma was found, with bleeding from the external iliac artery well above the inguinal ligament. The other was a girl aged 14 with hypertension. A haematoma formed around the common femoral artery which completely occluded the pulse, so the haematoma was evacuated and the puncture site in the common femoral artery was sutured. All the others stopped bleeding after pressure over the artery for a period of an hour or so, but the one arteriosclerotic patient bled intermittently for three days.

Arterial Occlusions

A total of 25 cases consisted of 14 females and 11 males. Of the former, 11 were suffering from heart disease and were being investigated by cardiac catheterization, and the other three who underwent Seldinger aortograms were suffering from polycythaemia, atherosclerosis, or Raynaud's phenomenon. Of the 11 males, one was suffering from polycythaemia, four from heart disease alone, four from atherosclerosis alone, and two from atherosclerosis and heart disease. Except for two of the patients with atherosclerosis alone, who underwent a needle puncture of the femoral artery, all were subjected to catheterization.

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