SUMMARY

This paper presents aspects of the role of the occupational therapist in the assessment and preparation of patients for work. The roles of the occupational therapist in working with two broad categories of workers, viz. the worker in industry who is experiencing problems related directly or indirectly to his work situation, and the disabled person who wishes to work, are described.

INTRODUCTION

The occupational therapist can fulfill a consultant role with workers already working in an industrial setting. This role, although in its early stages of development in South Africa, is practised fairly widely in overseas countries. The occupational therapist’s intervention, as discussed, is based on overseas studies.

The assessment and preparation of the disabled person for work involves a thorough assessment of the person’s physical, psychological and social abilities in order to determine his work potential. The occupational therapist must also be familiar with the demands of work available in the surrounding community. This enables her to match the demands of work to the abilities of the worker.

OCCUPATIONAL THERAPY IN THE INDUSTRIAL SETTING

To date the author’s experience in the industrial setting is limited, but the demand for our service is growing. This aspect of our work is based on that of Shirley Lewchuck, a consultant occupational therapist working for a steel company of some ten thousand employees in Canada. She has clearly defined the role of occupational therapy in industry, and unlike her South African counterparts, has not remained hospital bound. She is concerned with the promotion of health in the actual work environment. It is not possible to ignore the fact that the relationship between a worker’s health and his work is dependent primarily upon a successful match of the work demands to his work abilities.

Lewchuck (1978) used ergonomic principles in describing a “systems approach” to the individual interacting with the workplace (Fig. 1). The individual and the workplace are seen as two separate systems which interact to produce the output variable of job performance. Discrepancies in the worker’s expectation of management, or vice versa, would have a negative effect on job performance. Therefore attempts to alter these discrepancies through, for example, educational programmes, rehabilitation programmes or modified work programmes, would affect job performance and ultimately lead to job satisfaction.

The occupational therapist in the work place can play a primary role in the development and implementation of a systems approach. However, it must be stressed that such a role is part of a multidisciplinary approach. The professional team of which Shirley Lewchuck is a member, comprises a doctor, social worker, physiotherapist, ergonomist, safety co-ordinator, personnel administrator and management from the worker’s specific work area.

We follow the following three strategies when discrepancies arise:

- **Work assessments** which are specifically directed at identifying problem areas which cause the worker’s job performance to be poor.
- Once the problem/s are identified, special problem management programmes are then developed by one or more of the professionals, depending on the worker’s needs. These programmes may also take on a preventative approach to injuries and safety, and not only deal with the solving of problems.
- **Modified work programmes** are implemented when workers are not ready to return to their previous work, and need time to consolidate for their return.

When considering factors causing a worker inability to cope with the demands of his work, there is a tendency to emphasise physical factors, and overlook the worker’s mental health. Susan Cantor (1979), a consultant who specialises in the area of prevention and problem-solving services, and who has experience in the field of mental health, stresses the need for more occupational therapy intervention in this field.

We are increasingly identifying problems in this area. For example workers:

- who want to return to their jobs after a psychiatric leave of absence;
- who wish to explore their use of time due to recent change in their lives, such as divorce or a desire to improve the balance between their daily life activities;
- facing retirement;
- facing conflicts arising from job demands versus family demands (especially the female worker);
- who have poor job fit;
- experiencing extreme boredom and unnecessary job fatigue;
- who show psychosomatic effects of job stress, i.e. those who have poor interpersonal relationships, fear losing their job or have low job satisfaction.

The occupational therapist deals with the latter group by using activities and group situations, relaxation exercises and social skill groups.
In these situations the worker receives feedback from others about his actions and reactions. It is then possible for him to learn new behaviour, and as a result, psychosomatic difficulties such as high absenteeism and low job performance might be reduced.

CATEGORIES OF DISABLED PERSONS SEEN IN THE WORK ASSESSMENT AND PREPARATION AREA

There are many different categories of workers who require occupational therapy intervention. The following four categories pertain to the disabled persons seen in the Occupational Therapy Work Assessment Area of Tygerberg Hospital:

- Workers who, due to illness (physical or psychiatric), are unable to return to their previous work (work skills are affected).
- Disabled persons who have never worked previously.
- Workers who are returning to their previous employment after a medical leave of absence (physical or psychiatric), and who need assistance with their resettlement into work.
- Disabled persons whose work capabilities have to be determined: for legal purposes; when disability grants are being revised; for insurance claims or an opinion required by the Department of Manpower Utilization regarding the person's suitability for sheltered employment.
The main aim of the work programme for disabled persons is to determine their work capabilities. An ergonomic model of work demands equalling abilities is used. By applying ergonomic principles the occupational therapist can realistically match the residual physical and mental capabilities of the worker to the demands of the work available. A worker's abilities to a work are not adapted; the emphasis is on matching work demands to the abilities of the worker, to enable him to cope successfully once he has been placed.

It is essential to determine the work direction early in the programme, and to plan a work programme accordingly for the individual. The assessment and preparation for work must be specific, and the worker must be aware of the aim of his work programme and the reasons for its modification at any stage.

Figure 2 refers to the 1982 work area statistics, which show the total number of disabled persons assessed in the area, and the different areas in which they were placed. The possible work directions are divided into six broad categories. Included too, are the number for which temporary or permanent disability grants were recommended, and the number who did not come in for an assessment after being referred. “Treatment discontinued” refers to those who were either unmotivated to attend, too sick to be assessed or lived too far away from the hospital to attend. For interest, a breakdown of how many persons had either physical or psychiatric problems, or both, was included. A point of interest which arises from the statistics is that, of the 15 home industry workers, 11 were physically disabled. The inability to use public transport, even though these were all good workers, was the reason for resorting to home industry, rather than being placed in some form of employment.

**ASSOCIATION OF THE DISABLED PERSON FOR WORK**

When a disabled person is assessed, attention is given to both the assessment of the worker and to the assessment of the demands of the work.

The worker is assessed by means of observation, either using work sampling, simulated work situations or actual work situations. Specific attention is given to:

- work motivation;
- basic work habits related to personal presentation, social presentation, work competence;
- work tolerance (physical and psychological);
- production speed;
- work skills peculiar to the type of work in which the person is being assessed, for example telephonist, clerk, production line worker and woodwork/metalwork.

In the assessment of the demands of work, the tools of assessment are work study, job analysis, the Humphrey System, ergonomic data and activity analysis. Because the occupational therapist analyses activities, she is able to describe work tasks according to the skills needed and operations carried out.

**PREPARATION OF THE DISABLED PERSON FOR WORK**

When the disabled worker is prepared for work, attention is given to his work abilities and work skills (mentioned under assessment) and where possible work visits are carried out. Work visits provide valuable information when either the worker requires assistance with his resettlement into his work situation, or when the occupational therapist is assessing a work place with the view to placement of disabled workers there in the future. Work visits enable the occupational therapist to assess the worker's particular work environment, and identify problems which could prevent the worker from settling down satisfactorily on his return to work.

Arising from the work visits, advice is given regarding the problem areas identified. When the occupational therapist identifies a problem she herself is unable to deal with, the problem is referred to the person into whose field it falls, for example when ramps have to be built. Attention is given to factors of the work place, the work method, the equipment and machinery, the presence of any architectural barriers or the need for allocating assistive devices or aids. A brief discussion of each factor using basic examples, will illustrate this more clearly.

Examples of modifications regarding work place are: Worker "A" has emphysema and therefore has low physical endurance. He must avoid unnecessary movements while carrying out his work and factors to be considered are the placement of furniture, furniture design, work heights, ventilation, etc. Worker "B" is a schizophrenic, who must be placed away from the centre of activity and from large groups of workers. The work environment must be specifically structured to cut down on the noise factor and threatening stimuli. Privacy, and a desk of his own are important.

Examples of modifying work method are: Instead of requiring Worker "A" to fetch and carry papers three times a morning, a system is worked out which reduces the fetching to once a morning, or arrangements are made to have the papers delivered to his desk.

**1982 WORK ASSESSMENT AND PREPARATION AREA STATISTICS**

<table>
<thead>
<tr>
<th>POSSIBLE PLACEMENT DIRECTIONS</th>
<th>PHYSICAL</th>
<th>PSYCHIATRIC</th>
<th>BOTH</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Labour Market</td>
<td>42</td>
<td>21</td>
<td>2</td>
<td>66</td>
</tr>
<tr>
<td>Subsidised labour</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Sheltered Employment</td>
<td>7</td>
<td>11</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Protected Employment</td>
<td>1</td>
<td>—</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Further training/study</td>
<td>6</td>
<td>—</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Home Industry</td>
<td>11</td>
<td>1</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Recommended disability grants</td>
<td>23</td>
<td>17</td>
<td>12</td>
<td>52</td>
</tr>
<tr>
<td>Treatment discontinued</td>
<td>47</td>
<td>16</td>
<td>15</td>
<td>78</td>
</tr>
<tr>
<td>Referred, never attended</td>
<td>33</td>
<td>5</td>
<td>5</td>
<td>43</td>
</tr>
<tr>
<td>Treatment continued into 1983</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>177</strong></td>
<td><strong>80</strong></td>
<td><strong>58</strong></td>
<td><strong>315</strong></td>
</tr>
</tbody>
</table>

Fig. 2. This table refers to the different areas in which the disabled persons were placed.
Worker "B" previously had to make contact with ten people, which is undesirable. Contact should be limited to two or less constant people. The eight other people must then report to the two selected people, who then report to Worker "B".

An example of modifying equipment/machinery can be illustrated with reference once again to Worker "A". Instead of papers lying on either side of a typewriter, use of a dictaphone would require less body movement and the arms are then kept in the mid-position. Other examples are designing jigs for machinery or for work tasks to be carried out by one-handed workers; and advising employers about adaptation of a switchboard for a blind telephonist.

Obvious examples regarding the modification and removal of architectural barriers are the removal of steps and the building of ramps, or the adaptation of the swing door to a sliding door to accommodate a wheelchair-bound worker.

An example of an assistive device or aid, is a writing splint, which would be issued to a worker suffering from an injury to his dominant hand.

PLACEMENT OF DISABLED WORKERS

Before final placement, the occupational therapist must ensure that the worker is fully independent in using public transport, in handling money and in personal care. He must also be fully informed about what will be expected from him in the work situation, and be capable of complying with work norms. Placements are done through close liaison with vocational officers of the Department of Manpower Utilization, or through personal contacts. Follow up is essential to ensure that the disabled worker has settled into his work situation successfully.

CONCLUSION

The role of the occupational therapist in the work situation, in my opinion, has for some time now been very much with the disabled worker and not sufficiently with the worker who is at risk within the industrial setting. This state of affairs, I am sure, will gradually change as industry becomes more aware of its high financial losses due to the poor health of its workers, and the contribution occupational therapy can make.

References


AN APPLICATION OF PHYSIOTHERAPY TO SOUTH AFRICAN INDUSTRY*

KAREN ELSWORTH, B.Sc. (Physiotherapy), U.C.T.

In a society where waiting lists are part of every physiotherapy department, as are acute shortages of staff, it is time that physiotherapists became more involved in a preventive role than is the case at present. What better place to do this than in the workplace where the majority of complaints begin and the majority of the population are to be found. Physiotherapists have been found to be valuable members of the Occupational Health team in other countries such as Sweden, where there are over three hundred physiotherapists in occupational health, and numbers are growing. These therapists spend their time involved in preventive studies and research of working conditions.

They use five main topics for discussion and research:

- Physical strain factors at work, their elimination or minimisation, their relationship to locomotor disorders and the prevention and treatment of such disorders.
- Working posture and correction of factors leading to stressful, tiring postures.
- Preventive pause gymnastics, use of leisure time and breaks.
- The role of psychological factors in musculo-skeletal disorders.
- Ergonomics which concerns the measuring of working place dimensions and worker anthropometry, well-designed mechanical aids and tools.

A study was made using three Cape Town factories where the managers had agreed to co-operate with the following procedure:

- All the staff were interviewed, as many were illiterate.
- Employees entered the office individually and were assured of the confidential nature of the survey. They were asked their name, age, occupation in the factory and whether they had any aches or pains. If so they had to indicate the area on anterior and posterior diagrams of the body.
- A tour around the factory followed the interview and an explanation was provided of what each employee or group of employees was doing.
- Observations were made and each major group of employees was assessed in their work situation.
- From the results recommendations for the entire factory, e.g. lighting and ventilation were made.

CLOTHING MANUFACTURER (FACTORY A)

Fifty eight per cent of the employees interviewed were machinists, all female and average age 25 - 30 years. A high incidence of headache, shoulder, upper and lower back pain was found, in that order. Some lower leg pain was also found as many of the machinists used treadle machines not