

## AN OCCUPATIONAL - THERAPY SURVEY OF THE HOSPITALIZED EYE PATIENT\*

DAVID SEVEL, M.B., B.Ch. (RAND), Ph.D. (LOND.), F.C.S. (S.A.), D.O. (R.C.P. & S. ENG.) AND J. A. HART, D.A. (GLASG.), DIP. O.T. (EDIN.), *Departments of Ophthalmology and Occupational Therapy, Groote Schuur Hospital and University of Cape Town*

Though the value of occupational therapy for the blind patient has been appreciated for many years,<sup>1,2</sup> its usefulness for the hospitalized ophthalmic patient has not been sufficiently stressed.<sup>12,13</sup>

The atmosphere in the average eye ward can be dismal; the light is subdued and one or both of the patient's eyes are bandaged to exclude light (single-padded or double-padded). As a result he becomes disorientated for time and in his relationship with the environment. During this enforced period of darkness he conjures up pictures of despair and magnifies minor disabilities.

It was as a means of detracting from such a state of mind that occupational therapy was considered.

### METHOD

The survey, which included 209 patients and extended over a period of 10 months, was conducted by a part-time occupational therapist. The choice of therapy was specific and varied with the requirements of each patient. Factors considered were sex, age, education, ophthalmic condition and bilaterality of the ocular occlusion, as well as duration of stay in hospital.

For practical purposes it was decided to group the patients into categories determined by the length of stay in hospital, the medical condition, the age, i.e. adult long-term cases (14 - 30 days), adult short-term cases (4 - 14 days), children (long- and short-term cases), and the newly blinded. The long-term patients were those with retinal detachments, corneal grafts and other conditions which necessitated prolonged hospitalization. They progressed from being at complete bed rest, with both eyes bandaged, to an ambulatory state, wearing peep-hole spectacles or dark glasses, and were not allowed strenuous physical effort. The short-term patients included those with cataracts, trauma to the eyes and other conditions requiring investigation or limited hospitalization. In addition, the categories of selected patients were considered according to the ethnic group, i.e. White, Coloured and Bantu, so as to be able to compare their respective responses to treatment (Table I).

Most patients requiring intra-ocular surgery were admitted 2 days before operation and during this period were introduced to the occupational therapist, who was then able to establish a satisfactory rapport with the patient. Initially some refused to cooperate, a feature observed particularly with those who still had some vision and who preferred to blunder on with their remaining sight rather than face reality.

The occupational therapist attended regular ward-rounds, so that the permissible range of hand and arm mobility could be discussed with the ophthalmologist. The patient's state of sedation was determined and the therapy adjusted accordingly.

Because of the nature of the disease or trauma of the eyes, bed rest and not exercise was required. Occupational

therapy, therefore, with the acute ophthalmic patient, called for modification and adaptation of standard techniques and, where necessary, the creating of aids to help overcome the patients' limitations.

Activities had to be within physical limits set by the medical condition, e.g. a patient with retinal detachment in bed with both eyes bandaged. The activities should be light, simple and repetitive, and should have a sedative quality, providing an outlet for emotional tension. The intellectual needs of patients had to be considered. (Patients ranged from the illiterate and the uneducated with no formal schooling right up to university graduates and business executives.)

Where patients were involved in the making of an article or actively doing work, verbal instructions had to be given in a clear manner with the emphasis on the positioning of activity in relation to the patients' left and right hands.

### MODIFICATION AND ADAPTATION OF STANDARD TECHNIQUES

Because of the barrier of temporary blindness the 'double-padded' patients, both adult and children, required activities simple enough for them to accomplish physically, or that they would find mentally challenging or satisfying.

### Recreational Activities

For the 'double-padded' patients there were familiar games such as solitaire, draughts and dominoes. It was observed that they found it easier to distinguish a raised spot rather than a depression. The games were made of wood and were larger than those bought in the shops. Children's games, 'noughts and crosses' and 'beetle', normally played with paper and pencil, were constructed in wood, using raised surfaces and different thicknesses of pegs to enable children to play by feel. Rough and smooth

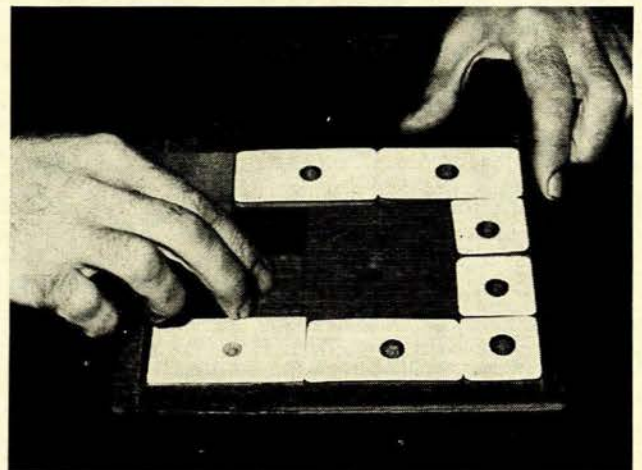


Fig. 1. Manipulative wooden puzzle—aim to move large square from bottom position to top opening in frame. Note countersunk centres to allow easier handling.

\*Date received: 11 December 1968.



TABLE I. CATEGORIES OF SELECTED PATIENTS

	White		Coloured		Bantu	
	Male	Female	Male	Female	Male	Female
<i>Adults—long-term (14-30 days)</i>						
Corneal grafts	3	0	4	3	2	0
Detached retinas	6	3	7	6	1	1
Readmissions	0	1	1	1	0	1
Glaucoma	0	0	1	0	2	0
Trauma	3	0	1	1	1	0
Cataracts	1	2	3	2	0	0
Other conditions:						
hyperthyroidism, plastic repair lid, haemangioma, cysts, deteriorating vision, retrobulbar neuritis, tumours	1	5	1	1	2	0
Readmissions	0	2	0	0	0	0
Totals	14	13	18	14	8	2
<i>Adults—short-term (4-14 days)</i>						
Cataracts	9	9	18	8	1	0
Trauma	3	0	8	2	4	0
Glaucoma	0	1	0	2	1	0
Corneal grafts	0	0	3	0	0	0
Enucleation	1	0	1	0	0	0
Other conditions:						
proptosis, iritis, keratitis, trachoma, vitreous haemorrhage, optic atrophy, diplopia, tumours, iridectomy, ptosis, blind	10	5	9	5	4	0
Totals	23	15	39	17	10	0
<i>Children—long-term (14-30 days)</i>						
Detached retinas	1	0	2	0	0	0
Readmissions	0	0	1	0	0	0
Corneal grafts	0	0	2	0	0	0
Trauma	2	0	0	1	0	0
Other conditions:						
congenital blepharophimosis	0	0	1	0	0	0
Readmission	0	0	1	0	0	0
Totals	3	0	7	1	0	0
<i>Children—short-term (4-14 days)</i>						
Corneal grafts	0	0	2	0	0	0
Trauma	3	2	1	1	0	0
Congenital cataracts	0	1	1	0	0	0
Other conditions:						
bilateral ptosis, squints, tumours, hydatid cyst	2	1	5	2	0	0
Totals	5	4	9	3	0	0
<i>Newly blinded</i>						
Adult	0	2	2	0	0	0
Children	0	0	0	0	0	0
Totals	0	2	2	0	0	0

surfaces were created by the addition of large drawing-pins or round-headed screws and by glueing on textured materials. For the older children and adults, simple puzzles were devised with pegs or different shapes of wood which had to be moved in a given sequence (Fig. 1).

*Noughts and crosses.* These were made from a wooden board  $8\frac{1}{2}$  inches  $\times$   $8\frac{1}{2}$  inches. Nine squares 2 inches  $\times$  2 inches, outlined in cane, represent the framework of the game. At the top and bottom of the board  $5\frac{1}{2}$ -inch holes are drilled, into which are placed pegs of  $\frac{1}{2}$ -inch dowelling. Drawing pins on top of the pegs denote noughts, and the crosses are represented by a deep cut (Fig. 2).

*Beetle boards.* The raised shape of a simplified beetle is made on wood. At the site of the eyes, the feelers, the tail, etc., are holes of varying sizes, which accommodate pegs of a corresponding size from 1 to 6. The number thrown on the dice (a large cube of wood with raised spots) determines the position of the peg to be fitted (Fig. 3).

*Rough and smooth pegs.* This game consists of a piece of wood 8 inches  $\times$  2 inches  $\times$   $\frac{1}{4}$  inch, in which 7 holes have been drilled. Into these holes fit pegs, 3 of them with screws in the top, all 1 inch in length and  $\frac{1}{4}$  inch in diameter. The middle hole is left empty. The object of the game is to change the positions of the pegs to the



opposite end of the board by moving them into an empty space or by jumping over one peg at a time (it can be done in 15 moves).

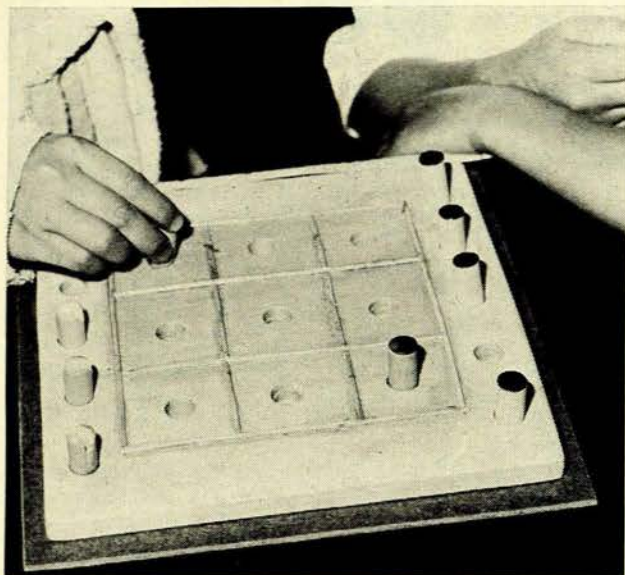


Fig. 2. Noughts and crosses game—board replaces normal method of play by drawing.

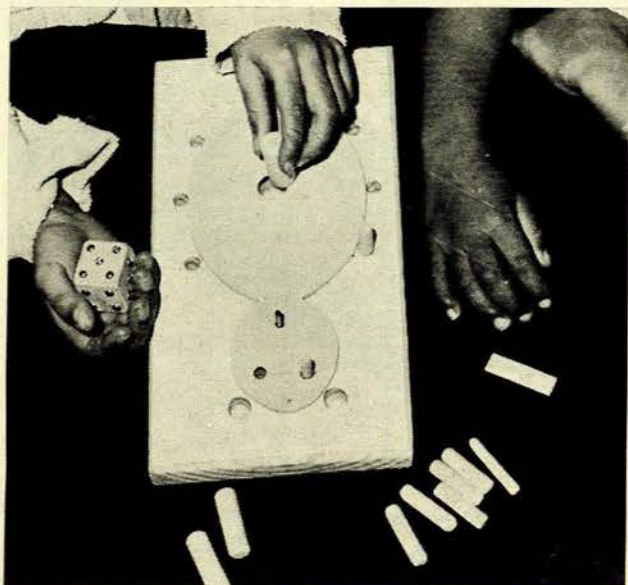


Fig. 3. Beetle game—devised for 'double-padded' child on bed rest. Round-headed screws denote spots on dice.

Knitting, being a familiar activity with women, was easily adapted for the 'double-padded' bed-rest patients who were only allowed gentle hand and wrist movements and minimal movement of the elbow. With short knitting needles and thick wool or yarn, patients made knitted toys and dolls for children in the wards. To facilitate measuring of the knitting the tape measure had a staple inserted at each inch mark. Cardboard shapes of different

parts of knitted toys were supplied to patients to familiarize them with the shape to be knitted.

In the early stages of recovery some of the 'double-padded' patients derived much pleasure from listening to music—the choice of record was according to individual taste. Reading to the patient by the therapist of a daily newspaper, books and magazines helped to combat feelings of isolation. In the same way crossword puzzles and word games provided mental stimulation. By using a small tape-recording machine the businessmen could record articles and dictate letters.

#### *Development of Work as Treatment*

The introduction of work-orientated projects for the short-term patients, such as threading labels, folding and counting printed forms, stamping envelopes and enveloping accounts, proved invaluable. It was observed that the 'double-padded' patients could also participate. By breaking down activity in relation to amount of vision and supplying simple measuring devices and modified tools, the majority of patients were able to contribute something to the group effort. Soon daily group sessions were part of the occupational therapy programme, with groups working to background music. All the work projects have been done for different hospital departments; for instance the eye wards now supply the hospital with all operation labels.

#### *Aids and Methods of Construction*

*Writing aid.* For patients able to write, but with diminished vision, a writing aid can be constructed from a piece of cardboard 13 inches  $\times$  8 inches, 4 paper clips, a black koki pen and thin writing paper. Guiding lines 1 inch apart are ruled on the underside of the cardboard. The lines are pricked with an awl, or are run through a heavy-duty sewing machine. The pricks should be 10 to the inch.

The writing paper is attached to the board with paper clips. With the forefinger of the left hand the patient finds the position of the top line on the page. The right hand, holding the pen, starts writing with the pen touching the left forefinger. Words should rest on the line. Patients develop their own style of writing when they become familiar with the aid. As sense of touch develops, the space between the lines can be reduced.

*Typing aid.* A light typewriter keyboard was devised and developed for the 'double-padded' patient in bed, or the partially sighted patient who was only allowed hand and wrist movement and a little upper-arm movement. The purpose of the aid was to enable the patient to memorize the position of the letters by touch, in preparation for typing.

#### RESULTS AND DISCUSSION

Although the medical conditions treated in the different ethnic groups were similar, the psychological trauma experienced through hospitalization varied. Lack of, or disturbance of, vision, be it only temporary, sometimes causes depression and emotional upheaval. This was more marked among the White patients, especially the educated males, whose work or profession demanded good vision; their whole future was in the balance. On two occasions male patients asked that no relatives be allowed to visit them.



Much more individual occupational therapy was required in the White wards. On the other hand, it was found with the male Coloured and Bantu patients that better responses were achieved when group activities were introduced. The response from the female Coloured and Bantu patients depended a great deal on their age and whether they were urban or rural. The older women from the country areas with little or no education were content to sit and do nothing.

Apart from the psychological needs and physical limitations set by the ophthalmological condition, the selection of activities was determined by an attempt to create a sense of purpose and usefulness. Where necessary, new skills were taught, the therapist attempting to evoke senses other than sight, such as hearing (record playing, reading newspapers to adults and stories to children) and touch.

With reference to the choice of therapy, the education and intellect of the patient were found to be of great import. The uneducated labourer was less concerned about his visual disability and his future prospects. The group was, as a result, less emotionally labile, and generally did not require individual attention. In point of fact, they seemed more relaxed with group therapy. This type of person did not have the same fear of tasks commonly associated with the blind.

While individual therapy was necessary for certain cases, group therapy was found more efficacious for the mobile patient. Much has been written about the value of group dynamics among psychiatric patients.<sup>14-17</sup> Modifications of these techniques have proved of vital value in this ophthalmological programme. It was apparent from the beginning that not only did the short-term group patients benefit from work as treatment, but the long-term 'double-padded' patient was no longer isolated and became instead a contributing member of the group. With the elderly patient repetitive work, such as folding of hospital forms or threading of labels, was found to be useful and of value to the hospital administration. Younger patients found games more beneficial.

It was found that patients accustomed to using their hands, e.g. watchmakers, electricians and carpenters, had no difficulty learning new skills. Although crafts, e.g. basket-weaving, had a place in the programme, it became obvious that for some of the more intellectual patients crafts customarily associated with blindness were to be avoided.

It was essential to convince the newly blinded patient that his disability did not mean incompetency. An attempt was made to develop mechanical skills by first performing simple tasks and then coordinating the sense of touch. This was aided by discovering new aptitudes and developing them in the patient.

#### SUMMARY

This pilot survey has shown that occupational therapy does have a place in the eye ward. The close cooperation between the ophthalmologist and occupational therapist is an essential requirement for the success of a project of this nature. Various techniques are described and the differences between ethnic groups and their requirements are mentioned.

This survey was partially subsidized by the Gratitude Fund of Ophthalmology.

#### REFERENCES

1. Fox, J. van D. (1965): *Amer. J. Occup. Ther.*, **19**, 6.
2. Hutchinson, E. in Willard, H. and Spachman, C., eds. (1963): *Occupational Therapy*, pp. 146-156. Philadelphia: J. B. Lippincott.
3. Kuitert, J. H. and Vultee, F. E. (1953): *Amer. J. Phys. Med.*, **32**, 276.
4. Blind Male Beggars (1957): *Indian J. Occup. Hlth*, **3**, 9.
5. Nimbker, K. V. (1957): *Ibid.*, **3**, 28.
6. Brown, J. (1951): *Amer. J. Occup. Ther.*, **5**, 149.
7. Campbell, M. D. (1947): *Ibid.*, **1**, 27.
8. Forbes, E. S. (1948): *Ibid.*, **2**, 145.
9. Ritter, C. G. (1951): *Ibid.*, **5**, 146.
10. Stevens, A. L. (1951): *Ibid.*, **5**, 159.
11. Wellerson, T. L. (1951): *Ibid.*, **5**, 140.
12. Clarke, G. (1951): *Ibid.*, **5**, 137.
13. Alkan, H. (1963): *Ibid.*, **17**, 190.
14. Hi'l, M. (1964): *Occup. Ther.*, **27**, 19.
15. Smith, M. M. and Spear, F. G. (1964): *Ibid.*, **27**, 14.
16. German, S. A. (1964): *Amer. J. Occup. Ther.*, **18**, 209.
17. Fidler, G. S. and Fidler, J. W. (1963): *A Communication Process in Psychiatric Occupational Therapy*, pp. 57-69. New York: Macmillan.