KING'S FUND CENTRE

Continuing Education: Developments in Interprofessional Learning Implications for Therapists

10 March 1983

Rehabilitation - Selected Papers

75p

DEPARTMENT OF GENERAL PRACTICE

Senior Lecturer in charge: Dr. D.J. Pereira Gray, OBE, FRCGP

Senior Lecturer: Dr. M.S. Hall, BSc, FRCGP, DRCOG

Research Fellow: Miss R.E.A. Goble, BA, MBAOT, OTR

Course tutors:

Occupational Therapy	Dr. E.N. Dunkin, PhD, MBAOT, T.Dip, SRN
Physiotherapy	Miss M. Penn, BA, MCSP
Speech Therapy	Miss B. Fisher, MSc, DTST, LCST

CONTINUING EDUCATION FOR OCCUPATIONAL THERAPISTS, PHYSIOTHERAPISTS AND SPEECH THERAPISTS

UNIVERSITY OF EXETER

REHABILITATION : SELECTED PAPERS 1983

Department of General Practice
Postgraduate Medical School
University of Exeter

REHABILITATION : SELECTED PAPERS 1983

TABLE OF CONTENTS

* * * * *

INTRODUCTION

"A profession lives or dies at the grass roots" (Yerxa, 1966)

We hope that this publication will demonstrate that grass roots therapists can contribute to the growth of their professions, for these are therapists who work with patients, who have no higher degrees, and who knew very little about research prior to attending the Exeter University Course of Continuing Education for Therapists.

Devon and Cornwall are full of "grass roots therapists"; many of whom are often isolated considerable distances from their colleagues. Such dispersed professional activity, coupled with the high proportion of elderly living in the South West (O.P.C.S., R.C.G.P., D.H.S.S., 1974), serve to highlight the need for continuing professional education, if local clinical services are to be of a high quality. To ensure this, the professions must complement each other particularly in a field such as rehabilitation where services are frequently understaffed and where professional roles all too often overlap (Wood, 1974).

Many of the therapists working in the South West are married women (South Western Occupational Therapy Association, 1978) practising in isolation. In the past, there have been restricted opportunities for reading the literature, attending lectures, or participating in research interest groups. Traditionally, therapists have not given priority to this important aspect of professional development.

Recently, the Department of General Practice has pioneered a pilot course of continuing education for therapists. This scheme has received the support of the professions both locally and at national levels. There is no doubt that the course has enabled local therapists to develop a more mature approach to research and evaluation, since every therapist has undertaken a small project whilst on the one-year day release scheme.

The resulting research projects were of a high quality; most of them being considered suitable for publication in the professional journals. This satisfactory result is attributed to the tutor and colleague support provided from within the course, together with the basic training in research methodology that is offered. Four papers have been selected for presentation at the First European Conference on Research in Rehabilitation, to be held in Edinburgh in April, 1983.

Local acknowledgement has taken the form of a prize for the best project. A sum of money is awarded by "Therapy Weekly" for the most outstanding contribution, which is marked by both internal and external examiners for content, presentation and professional relevance.

Our first intake of therapists (1981) requested that we form an interprofessional committee in order to initiate a South West Research Interest Group. This group has now met twice a term for two years. It has devised its own Constitution, elected its own officers, holds regular Study Days, and has become financially self supporting. The group has committed itself to advancing education and research into all aspects of rehabilitation. Not only does this Society provide local opportunities for members to attend lectures, discussions and demonstrations but it also makes financial contributions towards therapists attending national meetings. Further information may be obtained from the Secretary, Mrs. Jill Ashton, 44 East Avenue, Exeter.

Successful research produces original ideas as a result of questioning current practice; we are already observing colleagues changing their every day practice.

We believe that our Continuing Education Scheme, in collaboration with the Research Interest Group, enhances local levels of clinical practice. The idea of having a continuing educational framework linked with a University and sited within a Postgraduate Medical School may be seen as a milestone in the development of our professions.

This collection of papers reflects the wide ranging interests and quality of therapists on the course - we hope that you will enjoy reading them.

REFERENCES

O.P.C.S., R.C.G.P., D.H.S.S. (1974). Morbidity Statistics from general practice. HMSO, London.

South Western Occupational Therapy Association (1978). Occupational Therapy Profile.

Wood, P.H.N. (1974). Options in the delivery of medical care. Report of a working conference sponsored by the Department of Health and Social Security. Arthritis and Rheumatism Council, London.

Yerxa, B. (1966). Observe - Theorise - Relate : our professional responsibility. Paper given at the Conference of the World Federation of Occupational Therapists, London.

Rita E.A. Goble	University of Exeter
Research Fellow	February, 1983.

We are most grateful to our Occupational Therapy tutor, Dr. Naomi Dunkin, for preparing these papers for publication.

ESTABLISHING A RECORDING SYSTEM IN THE PHYSIOTHERAPY DEPARTMENT OF FRANKLYN HOUSE, EXETER

Gillian L. Freedman, M.C.S.P.

Physiotherapist
Franklyn House
Exeter

CONTENTS

ACKNOWLEDGEMENTS

This project was undertaken whilst the author was a student on the Continuing Education Scheme of the Postgraduate Medical School, University of Exeter. Without the generous support of the King's Fund this project would not have been possible.

The author would like to thank M. Caunter, Superintendent Physiotherapist, for her advice and encouragement.

ABSTRACT

A literature survey revealed the scarcity of suitable physiotherapy assessment forms for use with mentally and physically handicapped children.

A questionnaire was sent to the physiotherapists in each of Devon's Special schools. The response supported the findings of the literature review. Few therapists used a recognized assessment system and most felt that a new system would be of assistance. Such a system was devised for use with ESN(S) children and adolescents. The system was then put into effect in Franklyn House physiotherapy department, Exeter. Further study would aim at modifying it for wider use.

INTRODUCTION

In 1975 the Chartered Society of Physiotherapy (C.S.P.) introduced a new syllabus and examination system for the training of physiotherapists. One section of the final exam is now given over to the assessment, examination and recording of an individual patient. The C.S.P. has obviously recognized the importance of accurate assessment as a prerequisite for treatment, and as a basis for examining the scientific value of physiotherapy in its many and various areas of practice.

Physiotherapists often work in small departments in Special schools, catering for the severely educationally subnormal (ESN(S), the mildly educationally subnormal (ESN(M) and for those children with physical handicaps. Observation of some of these departments, and subsequent communication with the physiotherapists in all of Devon's Special Schools, established that few therapists were using a recognized physiotherapy assessment system.

A literature survey indicated that few assessment systems are published for use with mentally and physically handicapped children. Most of those that are available have been developed by specialist centres such as the Bobath Centre, London; the Cheyne Centre for Spastic Children, London; and the Child Development Centre, Exeter. They are often inappropriate to the age and capabilities of the children being treated and tend to be complex and exhaustive. The therapist is required to spend a lot of time recording detailed information, yet ultimately the assessment may fail to paint an accurate overall picture of the child's capabilities.

In the light of the literature review and the subsequent response to the questionnaire sent to the physiotherapists in Devon's Special Schools, it was decided to devise an assessment form for use with mentally and physically handicapped children. In the construction of this form, principles and outlines were taken from Shepherd (1974), Levitt (1975) and Parry (1980).

MATERIAL

The proposed assessment form was intended for use in the physiotherapy department of Franklyn House, Exeter. The unit comprises a school and home caring for severely educationally subnormal children and young people, aged between five and twenty years. Many of the residents also have severe physical handicaps.

The system was devised to suit the needs of this particular department but could perhaps be applicable to other settings.

METHOD

A questionnaire was sent to the physiotherapy department in each of the ESN(S), ESN(M) and PH*schools in Devon. The list of schools was supplied by the Devon County Council Education Department.

The questionnaire consists of three questions (see Appendix I).

*PH = physical handicap

RESULTS

The three questions can be summarised as follows:-

		YES	NO	SOMETIMES
Q.1.	Do you use a recognised physiotherapy assessment form?	1	11	3
Q.3.	Would it assist you to have a compact and shortened assessment form available to you?	15	2	

Q.2. Which system do you use? Own system 50%

Other listed system 50%

DISCUSSION

Following this response it was decided to devise a physiotherapy assessment form for use in one particular unit for ESN(S) children and adolescents (see Appendix II). Reference was made to the Physical Ability Chart, produced by the Centre for Spastic Children, Cheyne Walk, London, also to the First Assessment for Therapists, kindly sent by the Bobath Centre London, and also to the section on assessment in Sophie Levitt's book, "The Treatment of Cerebral Palsy and Motor Delay".

Experimental Assessment Form

The experimental assessment form allows the therapist ready access to a wide range of information about her patient. It also allows any replacement therapist to read what treatment is being given, and thus encourages continuity of treatment.

The form consists of six sections. The first of these contains medical details, the second concentrates on speech, vision and hearing. The third section records self-help skills, and the fourth and main section describes the detailed physical examination carried out by the physiotherapist. The fifth section lists aids, appliances and equipment, and the final section deals with the therapist's overall impression of the child and the plans for treatment of that child. This system is now being used in the Franklyn House Physiotherapy Department, for whose children the system was designed.

Regular Assessment

From the answers to the questionnaire and from the information discerned in the literature survey, the area of child assessment appears to have suffered from neglect. This is a serious omission if one agrees with the proposition that accurate treatment depends upon accurate assessment. As Levitt writes, "Assessment is essential for a therapy plan which is relevant to each child". Accurate, regular assessment should indicate whether or not progress is being made. If progress is highlighted this provides encouragement to both child and therapist. If progress is negligible then reappraisal of the treatment programme should follow. Time spent filling in an assessment form is not time spent away from treatment but is an essential first step in the treatment programme.

Further Study

The findings of this study indicate that there is scope for further research into the area of child assessment, particularly for the child who is profoundly physically and mentally handicapped. Research might take place on an individual basis, with each centre devising a system relevant to its own needs, or it might take place on a national basis - taking information and ideas from many centres and trying to interpret the information in a practical way to produce an assessment system for use in a wider context.

CONCLUSION

In conclusion, this pilot study has motivated the author to devise a physiotherapy assessment system for use in her own department. A further study would seek to apply this system to other physiotherapy departments, modify it and eventually standardize it.

REFERENCES

Gunzburg, H.C. (1969). Progress Assessment Chart of Social and Personal Development, SEFA Publications Lts., Birmingham.

Levitt, S. (1975). Treatment of Cerebral Palsy and Motor Delay, Blackwell Scientific Publications, Oxford.

Parry, A. (1980). Physiotherapy Assessment, Croom Helm, London.

Shepherd, A. (1974). Physiotherapy in Paediatrics, Heinemann, London.

APPENDIX I

DEPARTMENT OF GENERAL PRACTICE
POSTGRADUATE MEDICAL SCHOOL
UNIVERSITY OF EXETER

PHYSIOTHERAPY: CHILD ASSESSMENT FORMS

1.	Do you use a recognized Physiotherapy assessment form?	Yes No Sometimes
2.	Which system do you use?	Own system Bobath P.A.C. Other - please specify: ....
3.	Would it assist you to have a compact and shortened assessment form available to you? If no, please give reasons:	Yes No

APPENDIX II

Franklyn House - Physiotherapy Department

Date of Assessment:

Name:

Date of Birth:

Diagnosis:

Drug Therapy:

Past Operations:	Dates	Comments

Consultant:

G.P.:

Past History:

Speech and Communication		Comments
No Communication	☐	
Eye Points	☐	
Signs	☐	
Talks	☐	

Vision

No Sight ☐
Partial Sight ☐
Glasses ☐
Normal Sight ☐

Hearing

Deaf ☐
Partially Deaf ☐
Hearing Aid ☐
Normal Hearing ☐

Cont'd....

Functional Activities

Comments

Dressing

Dependent ☐
With Assistance ☐
Independent ☐

Feeding

Dependent ☐
With Assistance ☐
Independent ☐

Toileting

Dependent ☐
With Assistance ☐
Independent ☐

Physical Examination

Comments

Contractures and Deformities

C/Spine
Th/Spine
L/Spine
Shoulders
Elbows
Hands
Hips
Knees
Feet

Reflexes and Reactions

Presence of Primitive Reflexes

Absence/Impairment of Balance Reactions

Muscle Tone

Hypertonus ☐
Hypotonus ☐
Fluctuating Tone ☐
Normal Tone ☐

Physical Assessment

Lying Position - Prone	With Assistance	Independent
Rolls to supine - to Left	☐	☐
Rolls to supine - to Right	☐	☐
Lifts head (from floor)	☐	☐

Cont'd.....

	With Assistance	Independent
Lying Position - Supine		
Rolls to prone - to Left	☐	☐
Rolls to prone - to Right	☐	☐
Pulls to sitting	☐	☐
All Fours		
Gets on to hands and knees	☐	☐
Crawls	☐	☐
Gets to half-kneeling	☐	☐
Sitting		
Achieves sitting position	☐	☐
Long sits	☐	☐
Tailor sits	☐	☐
Sits on chair	☐	☐
Sits on stool	☐	☐
Standing		
Achieves standing position	☐	☐
Walks	☐	☐
Climbs stairs	☐	☐
Runs	☐	☐
Jumps	☐	☐
Climbs obstacles	☐	☐

Comments

Aids, Appliances and Equipment

Date of Issue

Walking Aids

Footwear and Calipers

Wheelchairs and Modifications

Furniture

Child in Wheelchair - Mobility

Dependent ☐
With Assistance ☐
Independent ☐

Cont'd.....

Overall Impression of the Child

Aims of Treatment

Means of Treatment

Date of Reassessment

A COMPARISON OF PEAK FLOW RATE READINGS IN ASTHMATIC CHILDREN AT RESIDENTIAL SCHOOL

Diana P. Wrightson, M.C.S.P.

Physiotherapist
Heathercombebrake School
Teignmouth
Devon

CONTENTS

ACKNOWLEDGEMENTS

I am grateful to Miss M. Penn, B.A., M.C.S.P., Miss M. Passmore, S.R.N., and the tutors of the Continuing Education course, for their help with this project. This project was undertaken whilst the author was a student on the Continuing Education Scheme of the Postgraduate Medical School, University of Exeter. Without the generous support of the King's Fund this project would not have been possible.

ABSTRACT

The suggestion that asthmatic children at a residential school seemed to have more attacks at home during the holidays than at residential school was investigated.

As there was no suitable way to check these children during a home period it was decided to measure respiratory function by means of a Wright's peak flow rate meter immediately after a home period and at intervals during a school period.

Peak flow rate readings were taken at weekly intervals during school time. These readings were taken under standardised conditions:- (on the same day and at the same time each week when the child had taken part in the same activities).

The readings showed a variation in the peak flow but the reading did not appear to alter significantly after a home period. There seemed to be a variety of factors, such as drugs taken and whether or not the child had a cold, which caused an alteration in reading.

More detailed investigations of pulmonary function during a home period would be necessary to reach any definite conclusions as to whether attacks were more during a home period or a school period.

INTRODUCTION

Children returning to the Heathercombebrake residential School for Delicate Children claim to have had more attacks of asthma during the holidays than they did in term time. It was decided to investigate the hypothesis that these children experience more asthmatic attacks during holidays at home than they do while they are at residential school. This study compares the frequency of attacks in the two environments and considers possible co-existent factors that may influence the incidence of broncho-spasm.

Figures for the U.K., indicate that asthma occurs at some stage in 2 - 4 per cent of children. Donald Lane (1980) states that asthma is a condition which is easy to recognize, yet difficult to define. When a group of experts sat down to define asthma in 1972 they came to the conclusion that on the evidence currently available they could not do so. Lane says, "Asthma is a condition characterized by episodes of breathing difficulty due to wide spread narrowing of the airways of the lungs. This narrowing can be due to mucus in the airways, to swelling of the lining of the airways or to spasm of the muscle in the walls of the airways, or to the combination of all three."

The children in this study had sufficient problems of a recurrent nature to have agreed diagnoses of asthma.

Since respiratory capacity is an indicator of the general health of the respiratory tract, it was decided to base the study on a series of measurements of that capacity, using a standard meter (Wright's) of peak flow of respiration.

The locations of the children's homes were wide spread, some living as far afield as Wolverhampton and Kidderminster. Some of the children were at residential school because, as well as suffering from asthma, there are social problems in their families.

Due to the location of the children's homes it was not possible to visit them during the holidays to carry out pulmonary function tests. It was felt that, because of the social problems in some homes, a questionnaire sent to the families would not be suitable as these might not be filled in accurately. This was a further factor in the selection of an objective measurement of respiratory function: the peak flow meter could be used to demonstrate the amount of broncho-spasm immediately after a home period and at intervals during the school term.

As its name suggests, the Wright's peak flow meter measures the rate at which air can be forced out of the lungs after taking as deep a breath as possible, and then blowing it out as fast as possible. If one blows into a peak flow meter, the needle records the performance in litres per minte. In asthmatics it is more difficult to breathe out than to breathe in; and the more the bronchi are obstructed by spasm and swelling, the more difficult it is to force air out of the lungs. Therefore, peak flow is an objective measure of the degree of obstruction of the bronchi, and thus is a reliable indicator of the severity of the asthma. The Wright's peak flow meter works on the principle of a variable area of orifice meter. A ratchet is attached to the vane so that only maximum flow rates are recorded.

METHOD

The conditions under which the readings were taken were standardised by taking them on the same day and at the same time each week, and also by ensuring that prior to the readings, each child had been taking part in the same activities. As readings may vary slightly, the best result of three readings was recorded.

SUBJECTS

Six children aged between eight and sixteen years, who suffered from asthma, were to have peak flow rate readings taken at once weekly intervals under standardised conditions. As these were the only children available there could be no random selection of subjects. Three children had additional conditions and therefore the drugs being taken varied with each child. Each child acted as his own control. Table I shows the conditions from which the children suffer and the drugs they were taking.

TABLE I - Diagnoses and Drugs prescribed.

Subject	Diagnosis	Drugs
1	Asthma & history of T.B.	Phyllocontin
2	Asthma	Becotide & Intal inhalations
3	Asthma, Marfan's syndrome, congenital heart disease and osteocondritis	Intal
4	Asthma, underdeveloped kidneys	Becotide & Ventolin inhalations
5	Asthma	Paediatric Phyllocontin, Becotide & Ventolin
6	Asthma	Becotide, Ventolin, Phyllocontin & Phenergan

RESULTS

Table II shows peak expiratory flow rate (litres / min.) in six children aged eight to sixteen years, who are asthma sufferers, taken over a period of four months at weekly intervals

TABLE II - Peak expiratory flow rate (litres / min.)

Subject	11.12.81	15.1.82	22.1.82	29.1.82	5.2.82	26.2.82
1	455	395	450	465	480	485
2	240	235	260	250	250	235
3	265	-	280	250	235	275
4	235	225	200	-	195	205
5	160	210	240	240	260	180
6	145	-	145	115	95	130

Subject	5.3.82	12.3.82	19.3.82	26.3.82	2.4.82	30.4.82
1	485	435	390	450	450	490
2	255	245	235	235	260	230
3	270	280	265	270	295	250
4	220	225	195	235	230	165
5	190	-	185	165	195	170
6	85	125	200	120	155	-

The table shows the readings taken each week and the following periods were school holidays:-

1) Between 11.12.81 and 15.1.82 was the Christmas holiday.
2) Between 5.2.82 and 26.2.82 was the half-term holiday.
3) Between 2.4.82 and 30.4.82 was the Easter holiday.

Where readings are missing after holidays the children were late returning to school for various reasons but none of them included attacks of asthma. The two readings missing on subject 4 and subject 5, during term time, are due to the children being unwell, but again, not with asthma attacks.

The average peak flow for each child was worked out for 'critical' days (i.e. the days on which readings were taken after a holiday period) and for 'non-critical' days (i.e. the days on which readings were taken which were not after a period at home). The results were then compared, as is shown in the following table. However, a sign test showed no significant difference between critical and non-critical readings.

TABLE III - Average peak flow per subject

Subject	Average peak flow 'non-critical' days	Average peak flow 'critical' days	
1	451	457	+
2	248	233	-
3	268	263	-
4	217	198	-
5	204	187	-
6	132	130	+

DISCUSSION

The results show that the peak flow rate in the asthmatic children varied and in some of the children there was quite a marked difference between measurements (See Appendix I). Although there was a difference in most children's readings after a home period there was not a drop in peak flow rate in all cases. Indeed, as in subject number 5, there was a considerable increase after the Christmas holiday. Only subject number 2 showed a constant drop in peak flow rate after each home period.

There seemed to be a variety of reasons for the change in peak flow rate.

In subject number 1 there was a drop in peak flow rate after the Christmas holiday but she returned to school with a cold. The other occasions, during term time, when her peak flow rate dropped were on 12.3.82. when she had a cold and there was an even lower reading on 19.3.82. when she was wheezy.

Subject number 2 showed a drop in peak flow rate after each period at home but after half-term and the Easter holiday he returned to school with a cold. There were, also, several days during term time when he had a cold. They were:- 5.3.82, 19.3.82, 26.3.82. On each occasion, when he had not had a cold when the previous reading was taken, there was a drop in peak flow rate.

Subject number 3's peak flow rate readings did not vary much but this is possibly because she had a cold on most occasions when readings were taken. There was a drop in the reading after

Easter holiday but she returned to school with a cold and had no cold when the last reading of the previous term was taken. The one occasion, 2.4.82, during the period between half-term and the Easter holiday when she did not have a cold there was in increase in reading to 295 litres / min.

Subject number 4's variation in readings did not appear to follow any particular pattern as the readings on 26.2.82, 5.3.82 and 12.3.82 when she had a cold were higher than on 19.3.82 when she did not.

Although subject number 5 did not have a cold on any occasion when a reading was taken the readings varied considerably as shown in Appendix II. There was a drop after two holiday periods but an increase after the Christmas holiday. It is interesting to note, however, that after discussion with the school nurse, it was discovered that between readings on 5.2.82 and 26.2.82 when there was a drop in peak flow rate from 260 litres / min. to 180 litres / min., his Ventolin had been reduced.

Subject 6 did not return to school on time after two long holiday periods at home so the first reading taken at the beginning of each term was not taken immediately after a return to school. It is, however, interesting to note that on occasions when there was a considerable change in peak flow readings there had been a change in drugs. For instance between 26.2.82 and 5.3.82 when readings dropped from 130 litres / min. to 85 litres / min., Ventolin had been changed from inhaler to tablet form. Between 5.3.82 and 12.3.82 when there was an increase from 85 litres / min. to 125 litres / min. Phenergan was being taken regularly and between 19.3.82 and 26.3.82 when there was a decrease in reading from 200 litres / min. to 120 litres / min. Phenergan had been stopped.

Although by carrying out a sign test the results are found to be not significant, there is a suggestion that readings taken on 'critical' days are lower than those taken on 'non-critical' days.

It should be noted that on no occasion when readings were taken was a child suffering an attack of asthma.

CONCLUSION

Although in some cases there was a lower peak flow rate reading on return to school after a period at home, this was not always the case and there were variations in the readings during a school period.

There seem to be several factors which appear to affect the degree of obstruction in the bronchi, as shown by the alterations in readings when the drugs being taken had been changed or when the child had a cold.

Finally, this study demonstrates that it would be necessary to carry out more detailed investigations and pulmonary function tests in the form of peak flow rate readings, regularly, during a home period for any definite conclusions to be drawn on the question of whether a child had more attacks during a home period than at residential school.

In this preliminary study, no attempt was made to estimate the physical and/or emotional factors that differed between home and school environment. Subsequent investigations would require comprehensive evaluation of these factors to supplement the objective measurements of respiratory competence.

BIBLIOGRAPHY

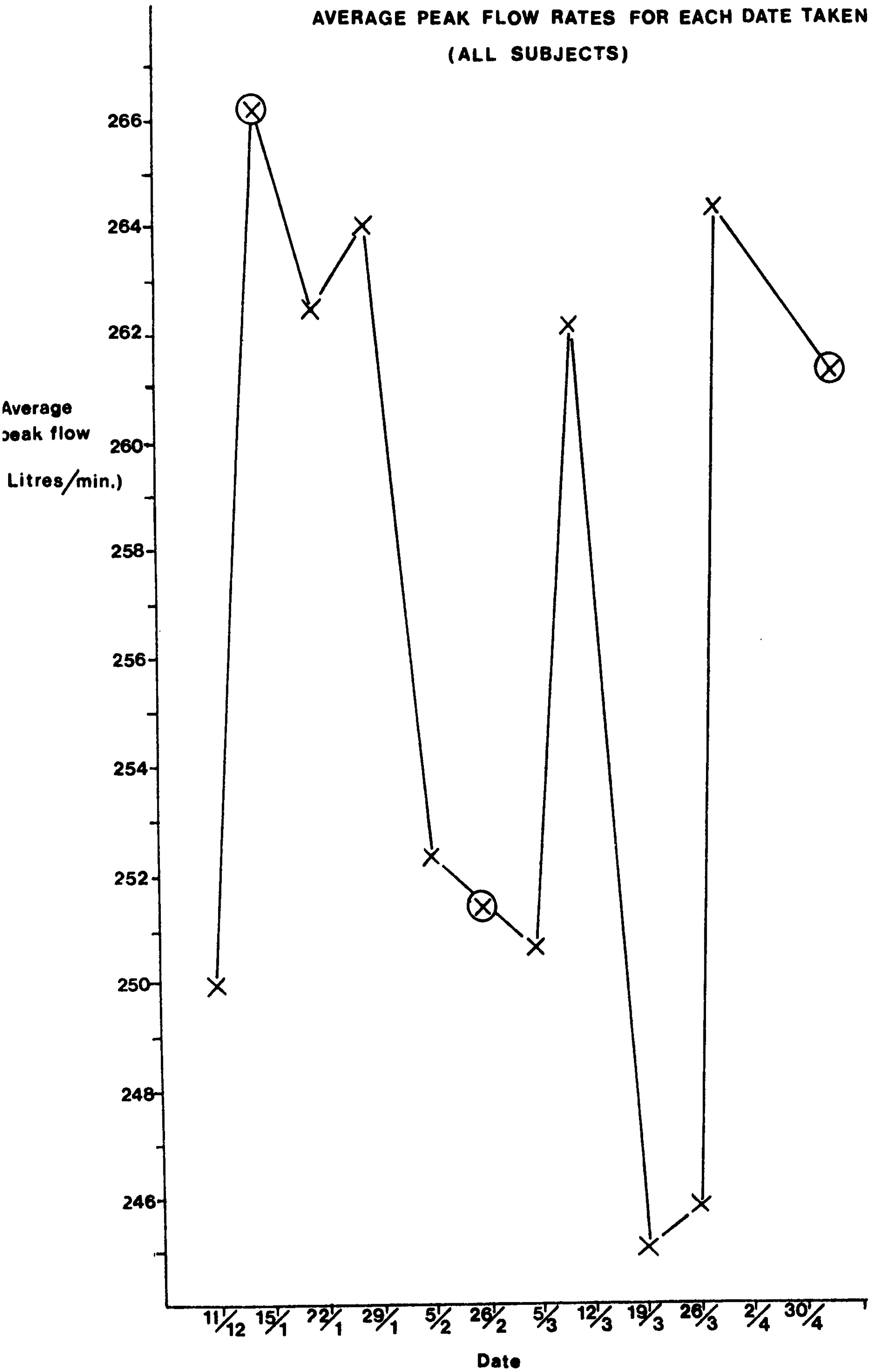
Lane, D.J. & Storr, A. (1980). Asthma. The Facts.
OXFORD UNIVERSITY PRESS.

Kuzemko, J.A. (1977). Asthma in children.
UNIVERSITY PARK.

REFERENCES

Lane, D.J. & Storr, A. (1980). Asthma. The Facts.
P.100. OXFORD UNIVERSITY PRESS.

APPENDIX I



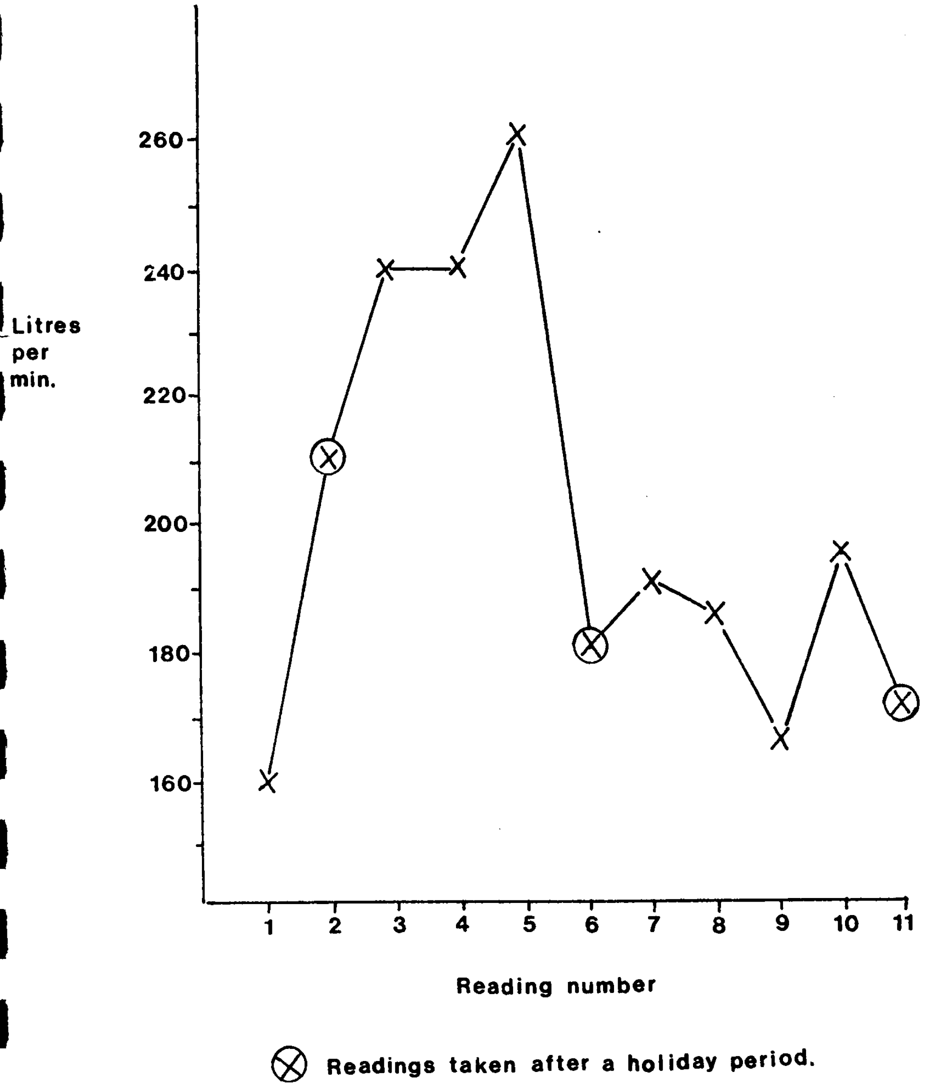
AVERAGE PEAK FLOW RATES FOR EACH DATE TAKEN

(ALL SUBJECTS)

⊗ Readings taken after a holiday period.

APPENDIX II

FIG. 1. SAMPLE GRAPH SHOWING DIFFERENCES IN PEAK FLOW READINGS IN SUBJECT No. 5.



COMPARISON OF THE EFFECTS OF A REMEDIAL PROGRAMME ON SENTENCE STRUCTURE

Jane S.A. Brown, L.C.S.T.

Senior Speech Therapist
The Old Dispensary
Plymouth

Acknowledgements

This project was undertaken whilst the author was a student on the Continuing Education Scheme of the Postgraduate Medical School, University of Exeter. Without the generous support of the King's Fund, this project would not have been possible.

Acknowledgements also to:-

Miss B. Fisher for her help and guidance
Mrs. M. Zee for her support.

CONTENTS

SUMMARY

A training programme was designed for a receptive dysphasic patient to improve comprehension of sentences containing prepositions. Twenty similarly constructed sentences were used: ten were taught and the remaining ten were used as a control. Training resulted in an improvement in taught sentences. There was an improvement in untaught sentences which suggested assimilation of a structure rather than memorization of particular taught sentences.

INTRODUCTION

This small study was undertaken to look at one particular area of difficulty in patients who have impaired understanding of spoken language following a stroke. Such dysphasia may result if the stroke causes brain damage affecting areas associated with language. Some types of dysphasia are predominantly receptive in nature: the patient will have difficulty understanding spoken or written language. Other types of dysphasia are predominantly expressive: in this case the patient will find it difficult to produce words or sentences himself either in speech or writing. Dysphasia may have both receptive and expressive components. Dysphasic disorders are not the result of paralysis or weakness of lips, tongue or palate, nor of hearing loss. (Goodglass and Kaplan 1976, Schuell 1969, Luria 1973).

The study is concerned with the ability to understand spoken sentences in one dysphasic patient who had predominantly receptive problems. Two groups of similarly constructed sentences were presented to the patient; one group was taught, the other used as a control. At the end of the training period both groups were tested to measure change. It was hoped from this to find out whether change would occur and whether generalisation of learning would take place between taught and untaught groups of sentences.

One specific grammatical structure was used for all sentences to ensure that they were as similar as possible. Each sentence was of the noun phrase, preposition, noun phrase construction.

Some ideas were adapted from the Derbyshire Language scheme, which is used with children and comprises an assessment and a teaching system. A non-verbal response by the person is required to show understanding of a command. A non-verbal rather than a verbal response means that dysarthric, dyspraxic, and expressive dysphasic errors, do not have to be considered. The level of comprehension is assessed in terms of the number of information carrying words that the person understands. Information carrying words are those words which must be understood in order for the listener to respond correctly. Thus, if during a meal someone leaned across and said "Pass the sugar please", this would contain only one information carrying word "sugar". The person asking has provided parallel cues of facial expression, gesture, etc., which indicate that he wanted the object. Also, in order for the word to be considered as an information carrying word, there must be an element of choice. The correct response must not be the most likely or obvious one.

It is wished to stress that the use of concepts from the Derbyshire Language scheme is not intended, in any way, to imply that dysphasic language is the same as child language. It was hoped that by comparing sentences of the same syntactic structure (i.e. all noun phrase, preposition, noun phrase, each having the same number of information carrying words) there would be greater comparability between taught and untaught sentences.

Shewan's work (1976) encouraged the author's interest in this project. She looked at generalisation of learning between taught and untaught sentences in expressive dysphasia.

METHOD

Subject

Only one subject was used, acting as her own control.

This method is particularly useful in dysphasic patients whose levels of ability and motivation vary.

The following criteria were used to select a subject:

(1) Aphasia was of more than three months duration and therefore outside the usual period of rapid spontaneous recovery.

(2) Aphasic problems were not complicated by other difficulties.

(3) The person was co-operative and willing.

Case history

Miss G., who is sixty one years old, suffered a minor "stroke" on 28.12.81. She made an excellent physical recovery but was left with a predominatly receptive dysphasia.

Miss G. worked for twenty years as an assembly worker for a local factory. Since retirement she has lived with her sister, brother-in-law, and nephew on a council estate. She is extremely well motivated and co-operative. On one occasion during the experiment she said "I've always enjoyed something like this".

Experimental design and material

Twenty sentences were used in the experiment, ten were taught and ten untaught.

The approximate level of comprehension of similar sentences was ascertained before testing from Schuell's Minnesota Test for Differential Diagnosis of Aphasia (1965) sub-section six on auditory disturbances. Since Miss G. was able to understand some sentences containing three information carrying words, this level was chosen for the study. Although all sentences contained three information carrying words, the actual number of lexical items always exceeded that, e.g. put the *pen in front of* the *cup*. The sentence consists of eight words but contains three relevant pieces of information or three "information carrying words". (See Appendix I for full list of twenty sentences used).

The nouns used in the sentences were chosen because of their common household nature. They were all well known to the patient and all objects were easily handled. The nouns were also dissimilar in sound from one another but all of similar length, e.g. all one or two syllables. Nouns used were: spoon, pen, comb, paper, key, fork, cup, box, dish, bag, knife, watch, ring, apple, sweet, nail, penny, hanky, jar, purse.

Prepositions used were: in, on, under, in front of, behind, and next to. The preposition "between" was not chosen because it would involve putting an object between two other objects, so making an extra unit of information, e.g. put the *pen* *between* the *cup* and the *spoon*, making four information carrying words. The preposition "next to" was chosen rather than "beside" because "behind" and "beside" are similar in sound.

In each command there was a choice of objects to be used and a choice of positions in which to place them. This was not just the natural association, i.e. not "put the cup on the saucer" as the patient who understands just "cup" and "saucer may just combine them in the normal manner.

A small pilot study using three information carrying words and the same sentence structure was tried out with Miss G. and teaching methods were investigated. It was found that Miss G. could not respond to being given the written form of the command as well as the verbal form, as this seemed to confuse her further. Neither was she encouraged to rehearse the commands aloud herself as when she did this she performed far less well. It appeared that processing the command and performing the action were ample to cope with.

The patient's comprehension level was measured by the number of words that she could remember and act upon after hearing the command only once. If the command was repeated the patient may have succeeded by understanding the information in several parts. The tester therefore ensured that requests were not split into parts or repeated, thereby reducing the difficulty of an item. If part of the command had to be repeated it was scored as a failure. The tester also ensured that the patient did not start to respond to a command before the complete request had been made.

Initially a test was made of all twenty sentences, i.e. ten that would eventually be taught and ten control sentences. The method used ten objects at a time which were placed on the table in random order with the tester opposite Miss G. A score was kept of the response to each information carrying word per sentence, as well as of the response to the command as a whole.

Experimental technique

All training and testing procedures were carried out in the patient's own home where she felt relaxed and comfortable.

After testing both groups of sentences it was decided to teach the group of sentences that were performed less well during initial testing.

When giving commands, in order to avoid additional clues, the tester took care not to indicate the objects by her own gestures and eye movements, as it is natural to look at an object when naming it and patients with comprehension problems are quick to pick up such cues. Conversational voice was used for initial and final testing without any particular intonational stress. A normal rate of speaking was also used on both these occasions.

The tester did not correct the patient's errors during initial and final testing procedures so that the patient was not made unduly aware that she had failed and did not lose confidence. However, when the patient sought encouragement, a non-commital "You're doing well" was used, though not necessarily on the correct items.

Training

At all times during training a great deal of positive reinforcement was used with verbal praise and gesture to which Miss G. responded well.

Several training procedures were employed; these are commonly used by therapists during treatment of receptive dysphasia.

Each sentence was said at a much slower rate during training than the normal rate used during the testing procedure. It is common clinical observation that the dysphasic patient will be helped to understand spoken information if it is presented at a slower rate than normal conversation. This observation is confirmed experimentally in work by Blanchard and Prescott (1980) who found that temporal expansion of speech signal and pause time resulted in both dysphasic and normal subjects demonstrating moderately improved performance in auditory comprehension. Repetition was also used so that auditory "image" became firmly established (Schuell 1969).

A further training method was also carried out using Amer-Ind, a gestural code adapted from the American Indian "hand talk" by Skelly (1979). Skelly says that the use of Amer-Ind need not be restricted to non-verbal expression but can also be used as a method of in-put with patients who have auditory comprehension problems. She finds that many patients who do not respond appropriately to auditory stimuli often interpret accurately, and respond appropriately, to codified gestures. In training, some of these Amer-Ind signs were used to accompany the spoken command. As well as gesture actual demonstration was used. The therapist said the command, demonstrated the appropriate response and then asked the patient to perform the same response.

Training sessions took place on three separate occasions with three five-minute training periods in each session. This produced forty-five minutes total teaching time. By the last five minutes of teaching time, even when broken up by another activity or by resting, less reliable responses occurred, probably due to fatigue.

After this training both sets of sentences were tested again, responses noted and compared with those of the initial test.

RESULTS

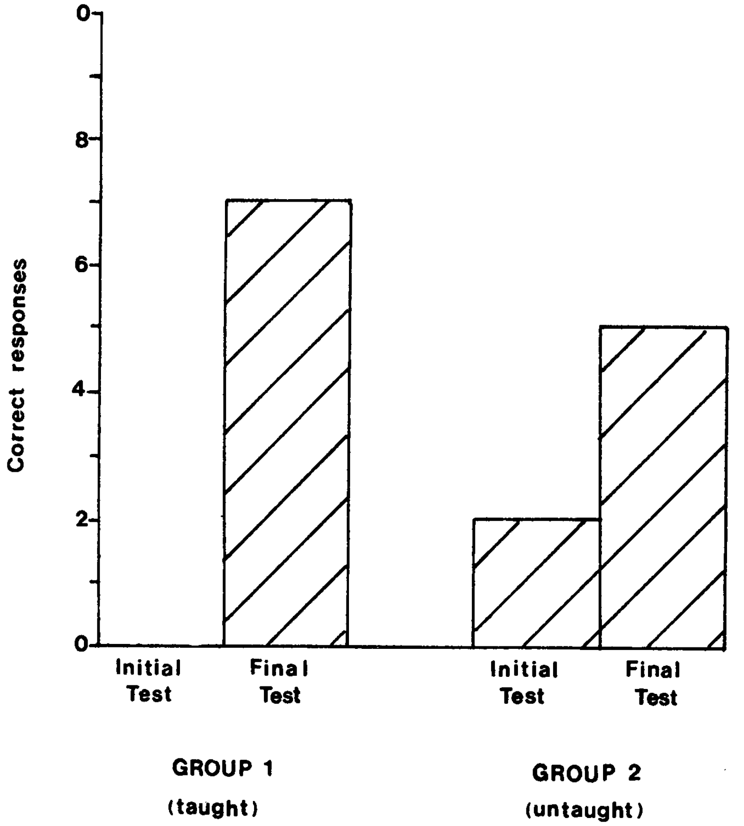
TABLE I: SUMMARY OF CORRECT RESPONSES IN TESTS, SHOWING % INCREASE

		GROUP 1			GROUP 2		
	No. Items	INITIAL TEST	FINAL TEST	INCREASE %	INITIAL TEST	FINAL TEST	INCREASE %
whole sentence	10	0	7	70	2	5	30
noun	20	11	16	25	17	20	15
preposition	10	4	9	50	3	5	20

From Table I it can be seen that the number of correct responses increased in both taught and untaught groups.

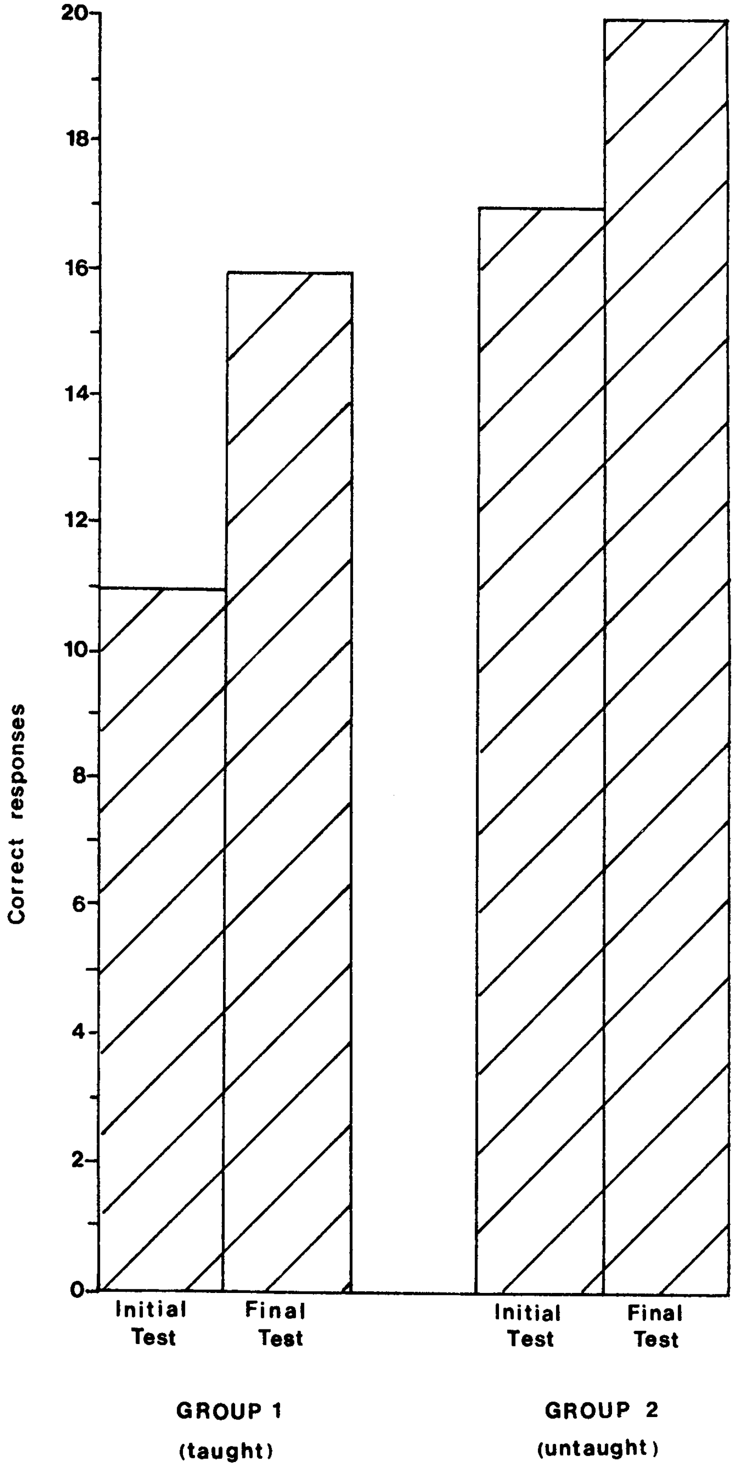
The greatest increases occurred in taught sentences and whole sentences showed the most marked improvement. Of the individual words -(nouns and prepositions), correct responses to prepositions increased more than correct responses to nouns. (See also Figs. 1, 2 and 3).

Fig. 1



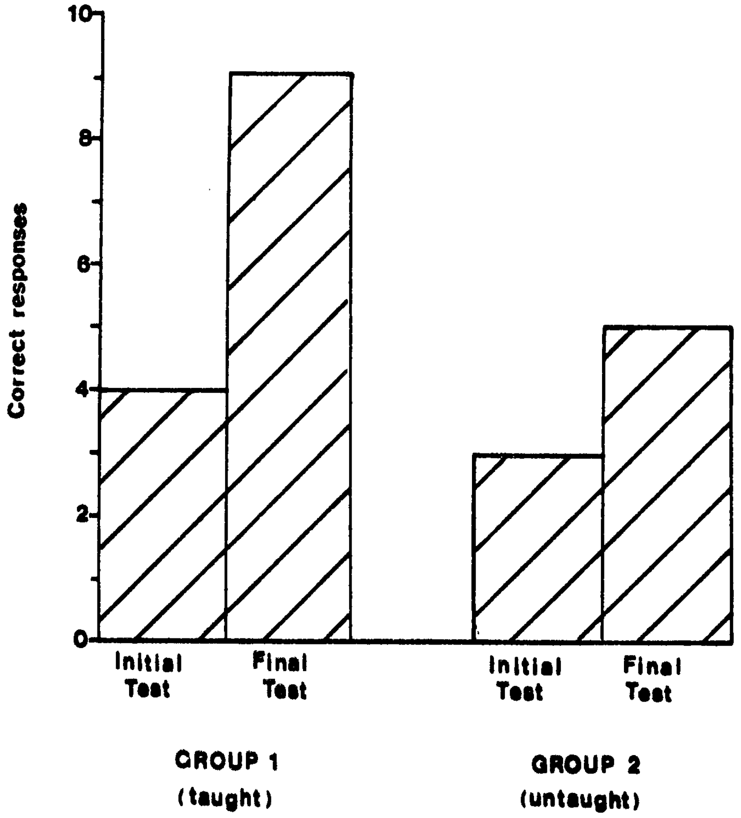
WHOLE SENTENCES

Fig. 2


20
18
16
14
12
10
8
6
4
2
0
Correct responses
Initial Test
Final Test
Initial Test
Final Test
GROUP 1
(taught)
GROUP 2
(untaught)

NOUNS

Fig. 3



PREPOSITIONS

DISCUSSION

The results show that the number of correct responses to whole sentences that were taught increased greatly (70% increase) and that the correct responses to whole sentences not taught had a 30% increase.

Considering individual words, the number of correct responses at initial testing was greatest for nouns. The percentage increase in correct responses to Group 2 nouns was maximal for that group, owing to the high score at initial testing: the 15% increase shown must be seen in the light of the ceiling effect induced by the choice of nouns in that particular set of sentences. Given a different selection of nouns in the untaught sentences, an even greater generalisation effect might have been demonstrated.

It is interesting to note that nouns showed less increase in correct responses than prepositions in Group I sentences.

The fact that the number of correct nouns in Group 2 was so high is difficult to explain as all nouns were well known to the patient and in fact "nail" and "jar" (both in Group 2) are less likely to be used in day to day activities than most of the Group 1 nouns.

In both groups the words that the patient found most difficult to comprehend before training were prepositions. Lesser (1978) reports several studies which have confirmed that grammatical words, such as prepositions, present more difficulties in comprehension for aphasics than do substantive words. This is thought to be because grammatical words carry less information. Dysphasic patients depend on connecting what they hear or read with their impaired score of semantic knowledge; grammatical words have less semantic content to help this connection than do substantive words.

After training, however, prepositions in both trained and untrained groups showed more improvement than nouns. This increase was 50% in Group 1 and 20% in Group 2. Since these are thought to be more difficult words, this is an interesting finding. It is difficult to interpret but suggest that teaching of grammatical words deserves a place in therapy programmes.

Shewan and Canter (1971) studied auditory comprehension and investigated syntactic complexity, vocabulary, and sentence length. They found that syntactic complexity, rather than vocabulary or length of sentence, presented the greatest amount of difficulty for aphasics. The finding that sentence length was not of overriding importance weakens the case sometimes put forward that syntactic disorders are related to length of memory. Shewan and Canter's finding also fits in with the present study because it appeared that length of auditory memory was not the limitation as it was the grammatical item in the sentences that was consistently hardest before training.

Work on generalisation by Shewan (1976) is also relevant to this study. Shewan studied generalisation with expressive rather than receptive dysphasics. Her sentence types included prepositional phrases similar to those in this study. She stated that "since rehabilitation in aphasia can never encompass all the sentences that a patient will encounter in communication situations the concept of generalisation is important". She reports work by Holland and Levy (1971) who found generalisation occurring for the interrogative but not for the negative or passive transformations. Generalisation also occurred for sentences of the same syntactic structure which contained different vocabulary. Shewan's study however produced different findings. She found that training did result in increased number of grammatically correct sentences but increases occurred on taught stimuli only. She did however find that there was a significant increase in appropriate lexical items for both taught and untaught items, although the number of semantically correct sentences did not increase. She suggested that different processes are involved for semantic and syntactic recovery. The results of this study agree with this distinction between semantic and syntactic recovery.

There appears to be a discrepancy between Shewan's finding of lack of generalisation and that of Holland and Levy, who found that generalisation to untaught sentences did occur. The present study supports the Holland and Levy position.

The results of a recent small study by Burton (81) investigating the patient's ability to use the spoken word after a period of training accorded with Shewan's (76) finding in that taught words showed some improvement, but the improvement was not carried over to untaught words. The present study differs from both Burton (81) and Shewan (76) studies in that those studies investigated the patient's ability to use the spoken word whereas the present study is concerned with the patient's ability to understand a short sentence of a chosen structure.

CONCLUSION

The present study has been extremely small, only observing one patient, and further research is needed using more patients with a wide range of sentence structures. Despite these limitations, the finding of this study has relevance to therapy. It indicates that comprehension of a specific structure responds to training. It shows that whole sentences improved most and that prepositions improved more than nouns. This study also confirms that the learning of a specific structure will generalise to similar sentences. This has relevance to the rehabilitation of verbal comprehension problems of dysphasic patients. In designing structured linguistic programmes for such patients it would appear that the teaching of whole sentences, and of prepositions rather than nouns, is likely to be most beneficial to the patient.

REFERENCES

1. Blanchard, S.L. and Prescott, T.E. (1980). The effects of Temporal Expansion upon Auditory comprehension in Aphasic Adults.
British Journal of communication Disorders. Vol. 15, No. 2. Pg 115-127.

2. Calnan, J. and Barabas, A. (1973). Writing Medical Papers.
Heinemann.

3. Goodglass, H. and Kaplan, E. (1976). The Assessment of Aphasia and Related Disorders.
Lea and Febiger.

4. Heilman, K. and Valenstein, E. (Eds) (1979). Clinical Neuropsychology.
Oxford.

5. Knowles, W. and Masidlover, M. (1980). Derbyshire Language Scheme.

6. Lesser, R. (1978). Linguistic Investigations of Aphasia.
Edward Arnold.

7. Luria, A.R. (1973). The working Brain.
Penguin.

8. Robson, C. (1973). Experiment, Design and Statistics in psychology.
Penguin.

9. Schuell, H.R. (1965). The Minnesota Test for Differential Diagnosis of Aphasia.
Minneapolis University of Minnesota Press.

10. Schuell, H.R. (1969). Differential Diagnosis of Aphasia.
University of Minnesota Press.

11. Shewan, C.M. and Canter, C.T. (1971). Effects of vocabulary, syntax, and sentence length on auditory comprehension in aphasic adults.
Cortex 7 209 - 226.

12. Shewan, C.M. (1976). Facilitating sentence formulation A case study - Journal of communication Disorders, Vol. 9 pg 191-197.

13. Skelly, M. (1979). Amer-Ind gestural code based on Universal American Indian Hand Talk.
Elsevier, New York.

APPENDIX

Sentences used.

1. Put the pen in the bag
   Put the cup on the paper
   Put the comb in front of the box
   Put the key behind the dish
   Put the fork next to the spoon
   Put the key under the cup
   Put the spoon in the dish
   Put the fork on the box
   Put the pen in front of the bag
   Put the comb behind the paper

2. Put the penny in the jar
   Put the apple on the knife
   Put the nail in front of the sweet
   Put the sweet behind the jar
   Put the knife next to the penny
   Put the nail under the hanky
   Put the ring in the purse
   Put the watch on the hanky
   Put the apple under the purse
   Put the ring in front of the watch

AN INVESTIGATION OF THE ATTITUDES OF THE DYSPHASIC PATIENT, SPOUSE AND SPEECH THERAPIST TOWARDS THE SPEECH HANDICAP

Melanie J. Hilton-Pierce, L.C.S.T.

Senior Speech Therapist
The Old Dispensary
Plymouth

CONTENTS

ACKNOWLEDGEMENTS

I wish to thank Miss S.B. Fisher, Speech Therapy Tutor, for guidance with the project, and Dr. R. Brown, Statistics Lecturer, Department of Psychology, University of Exeter, for his help with the statistics. I also wish to thank Mrs. H.J. Curle, Devon Area Speech Therapist and Mrs. M. Zee, Chief Speech Therapist, Plymouth, for allowing me to attend the Course of Continuing Education for Professions Complementary to Medicine.

This study was undertaken as a project which comprised part of a course run for Occupational Therapists, Physiotherapists and Speech Therapists, at the Exeter Postgraduate Medical School, funded by the Kings Fund.

ABSTRACT

There is evidence that dysphasic patients who make significant linguistic recovery have full family support.

Nine patients, their spouse and their speech therapist answered a questionnaire designed to test their attitudes to the situation associated with the speech problem. The questionnaire results correlated highly with the therapist's subjective estimate of adjustment. Low agreement on the questionnaire suggested poor adjustment to the dysphasia which resulted in inadequate support for the patient. In these cases a concurrent counselling and treatment programme was indicated.

INTRODUCTION

There is widespread acceptance that the attitudes and beliefs of others have an influence on a patient's progress. According to Nichols (1975) in rehabilitation medicine it is helpful to ascertain the attitudes, beliefs and expectations of patients and their families towards the patient's disability and treatment as these may contribute to both short-term and long-term outcome.

The aim of this paper is to consider some of the attitudes, beliefs and expectations held by the patient, the spouse and the speech therapist about the patient's speech difficulty and associated problems and to determine whether there is agreement (congruence) or disagreement (discongruence) of views (Kelly 1955).

A relationship between attitudes of a dysphasic patient's relatives and the success of the treatment programme has often been reported (Bjorn-Hansen 1959, Wepman 1951). Turnblom and Myers (1952) stressed the importance of the family in 'setting the atmosphere and determining the motivation for rehabilitation'. Buck (1968) believes the sensitivity and support of the family can be the decisive factor between a patient becoming an invalid or a revitalised functioning person. Malone, Ptacek and Malone (1970) reported that 100% of their patient's spouses had unhealthy attitudes in areas of retributive guilt, unrealistic views, rejection and over-protection. Such influences may be sufficiently potent to erode progress and may even undermine gains made in therapy. It is also important to look at the beliefs, attitudes and expectations of the therapist towards the patient, as the therapist's estimation of the patient's situation and of the prognosis can influence his adjustment.

Agreement normally indicates more realistic attitudes, whereas disagreement indicates some unrealistic attitudes and some lack of understanding of the patient's disability. A lack of understanding or unrealistic attitudes may be on the part of the patient, the spouse or the therapist.

It is useful at this point to give a brief description of the particular type of speech handicap from which dysphasic patients suffer. The person with sensory or receptive dysphasia has impaired ability in understanding spoken or written language, whereas the person with motor or expressive dysphasia has difficulty in expressing ideas in spoken or written language. Dysphasia presents itself in varying combinations and degrees of both receptive and expressive impairments. It is usually a very frustrating and confusing experience.

Dysphasia can result from neurological damage to the left hemisphere of the brain following a cerebro vascular accident. Dysphasia is defined as an impairment of verbal behaviour at the linguistic level (Sarno 1971). Language incorporates all the cognitive processes that affect communication including the integration of verbal, visual and auditory responses (Luria 1964). In addition to human communication, language is important for cognition, for regulation of personal behaviour (Luria 1964) and even for memory (Lewis 1973). Thus, reading, spelling, writing, calculation, some forms of thinking, memory and social behaviour can be affected.

METHOD

To gather information to test congruence, a questionnaire was devised which consists of questions covering the main areas related to the speech problem. The idea of this questionnaire arose from a Questionnaire on Psycho-social Adjustment in Aphasia (Muller and Code 1980) which sought to determine how dysphasic patients had adjusted to life in general.

Because of difficulties in speaking and understanding speech the obtaining of verbal information from a sample of speech handicapped people has certain limitations: these are discussed later.

Nine patients were selected for the purpose of the project together with their spouse and therapist. Each was interviewed separately with the questionnaire, the answers to which were coded and compared.

Subject selection

Dysphasic persons have difficulty responding to a questionnaire. Those with a receptive disturbance might have difficulty comprehending the questions, and impaired short term memory might result in the question being quickly forgotten. Those with an expressive loss would have difficulty in finding the words to express their ideas and in formulating sentences. Therefore, subjects were selected who were able to fulfill certain test criteria showing that they had sufficient verbal ability. Patients from the case loads of three different therapists were considered first by informal screening and then by test criteria.

Test criteria for the selection of the patient

The Auditory Comprehension part 'D' - Complex Ideational Material from the Boston Diagnostic Aphasia Examination was used as the screening test of receptive dysphasia. For the purpose of the project each subject had to achieve a score of at least 7/12 which the authors of the test found to be the average score achieved by dysphasics. This represents the average loss of understanding, being neither so severe as to exclude understanding nor so slight as to cause no difficulty.

The Oral Expression - part 'G' - Responsive Naming was used as the screening test for expressive dysphasia. Each subject had to score at least 16/30 as this was the average score achieved by dysphasics, and indicates that the patient would be able to express himself sufficiently well to answer the questions.

Experimental design

Nine questions were designed each having four or five possible categories of answer (see Appendix). The particular questions were chosen to cover relevant areas and to reveal possible discrepancies in the perception of the problem between patient, spouse and therapist.

The subject and the spouse were asked the questions and their answers were field coded, that is, placed into categories at the interview.

Prior to giving the questionnaire the experimenter made a subjective estimate on a scale of one to six of the adjustment of subjects and of their spouses to the disability. When the questionnaire was completed, the number of individual agreements between therapist and subject, therapist and spouse, and subject and spouse, were summed. The total number of answers showing agreement were correlated with the experimenter's estimate using Spearman's Rank Order Correlation Test.

Experimental Technique

The subject and spouse were interviewed separately in their own home and the interview tape recorded whenever possible. As some patients came from the experimenter's own case load, the experimenter had two roles, that of experimenter and of the therapist. Where this dual role occurred, the experimenter recorded her answers as therapist prior to giving the questionnaire. This was done in an attempt to eliminate interviewer bias.

In all cases, questions arose or problems needed discussing as a result of the questionnaire so that counselling was required and this was given.

Difficulties

Some difficulties were encountered in carrying out the project:

1. A relatively small number of subjects were available, as dysphasia is not a common disability and there were time and financial limits on the project.
2. The therapist and questionnaire giver were sometimes one and the same. This could lead to experimenter bias although this difficulty was recognised and care taken to minimise it.

3. Not all the interviews were recorded; this was partly because it was thought that some participants might answer differently if the interviews were recorded.

4. There were some difficulties in administering the questionnaire, in that sometimes it was difficult to elicit information from the subject, and at other times the spouse wanted to talk at length about problems and although this was kept to a minimum, it was nevertheless time consuming.

RESULTS

TABLE I - ESTIMATE OF ADJUSTMENT AND OVERALL AGREEMENT

SUBJECT	EXPERIMENTER'S SUBJECTIVE ESTIMATE OF ADJUSTMENT TO DISABILITY (1 to 6)	OVERALL AGREEMENT*
Mr. B.	2	12
Mr. W.	5	21
Mr. H.	1	14
Mrs. D.	4	18
Mr. L.	2	14
Mrs. M.	4	18
Mrs. Y.	5	20
Mr. C.	5	20
Mr. D.	4	18

* THE OVERALL AGREEMENT

The total number of ANSWERS showing agreement

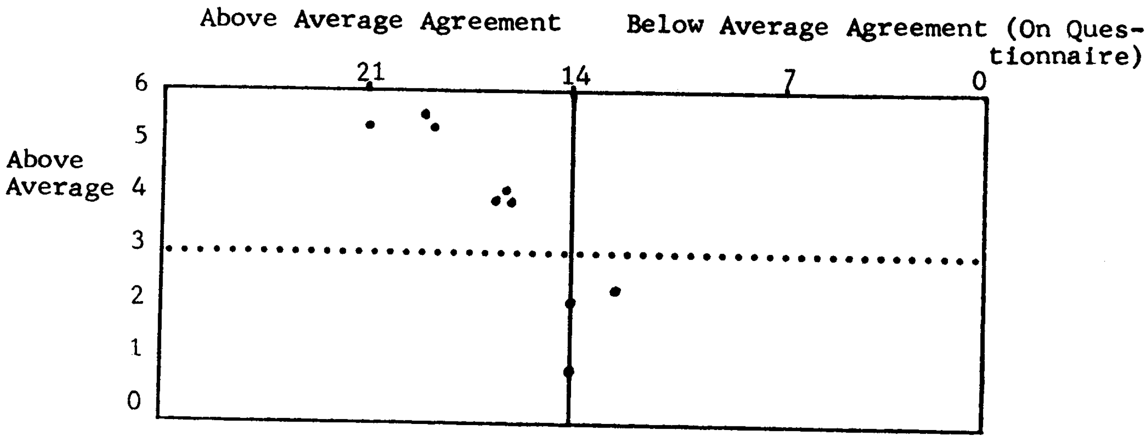
This table shows the number of times the answer given by the subject agrees with the answer given by spouse or therapist.

Each answer receives a score of one point.

From the Table above a graph and correlation is made.

Figure I

To show whether the questionnaire was a suitable predictor of adjustment.



A correlation of 0.7 between the amount of agreement in the questionnaire and the experimenter's estimate of adjustment was found.

This would indicate that the greater the agreement overall, the better the adjustment of the subject and spouse to the disability.

Illustrative Examples

Mr. B.

In this case there were only 12/27 agreements overall and the greatest number of agreements was three, between the therapist and the spouse. It was given a subjective score of 2. In fact, Mr. and Mrs. B. appeared not to appreciate each others' difficulties very much and there was a general breakdown of communication between them. Mrs. B. said, 'When we go to bed he never even says good night to me'. Mr. B. hinted that his wife did not talk to him very much.

Mr. B's dysphasia was only mild/moderate but with some support from his wife and more effort from himself, it was felt that he could have made a better linguistic recovery and his dysphasia need not have become such a major problem.

Mr. W.

In Mr. W's case there was high agreement overall (21/27) and the subjective estimate was five. Mr. W. had adjusted fairly well to his disability and had full support from his wife and family, so making a good recovery.

DISCUSSION

If the patient and those closely concerned hold realistic attitudes about the nature of the patient's condition then adjustment is made more easily. In contrast, if unrealistic attitudes are held adjustment may be impeded.

There are also implications for treatment. Where disagreement is evident, it may be more appropriate for the speech therapist to spend extra time explaining the nature and effects of the disorder, to alter the treatment plan or to give more advice to the family. The therapist may need to be more sensitive and attentive to the situation as experienced by the family.

From the findings it would appear that where agreement is low, poor adjustment and unrealistic attitudes exist so that the patient receives less support which hinders linguistic improvement. These results support the evidence surveyed in the introduction that those patients who make significant linguistic recovery have full family support.

CONCLUSION

The results of the questionnaire showed that low agreement or incongruence between patient, spouse and therapist, indicated poor adjustment and unrealistic attitudes towards the disability on the part of the patient.

It appeared that poor adjustment frequently led to poor support which might have implications for recovery of language.

The findings indicate that therapy and counselling should proceed concurrently in some cases so that the maximum benefit may be derived from the therapeutic program for dysphasia. However, it is stressed that the results of this small study do no more than indicate a fruitful line for future, more rigorous research. There are several difficulties to overcome and a larger sample would be needed before any definite general conclusions can be drawn.

REFERENCES

1. Bjorn-Hansen, V. (1959). Social and Emotional Aspects of Aphasia.
   Journal of Speech and Hearing Disorders, 22 ; 53-59.

2. Goodglass, A. and Kaplan, Es. (1972). The Assessment of Aphasia and Related Disorders.
   Lea and Febiger, Philadelphia, p.10-11, 18.

3. Kelly, G.A. (1955). The Psychology of Personal Constructs. 1 and 2 New Yorks Norton.

4. Lewis, R.F. (1973). The Memory Deficity of Korsakoff Patients.
   Ph.D. Dissertation, Boston University.

5. Luria, A.R. (1964). Disorders of Language (edited by De Rueck, A.V.S. O'Conner, M.)
   Little Brown, Boston, p.143.

6. Malone, R.L. (1969). Journal of Speech and Hearing Disorders. U.S.A. No. 34.

7. Malone, R.L., Ptacek, P.H. and Malone, M.S. (1970). Attitudes expressed by families of aphasics.
   British Journal of Disorders of Communication, 15 : 174-179.

8. Muller, D., Code, C. (1980). Cardiff School of Speech Therapy. Phychological Aspects of the Adjustment of Mild Aphasia.

9. Nichols, P.J.R. (1975). Some Psychosocial Aspects of Rehabilitation and their implications in Research.
   Proc. Roy. Soc. Med. Volume 68, p.1.

10. Turnblom, M. and Myers, J.S. (1952). Group Discussion Programme with the Families of Aphasic Patients.
    Journal of Speech and Hearing Disorders. 17 : 393-396.

11. Wepman, J.M. (1951). Recovery from Aphasia.
    New York, Ronald Press Company.

12. Sarno, M.T. and Levita, F. (1971). Archives of Physical Medicine and Rehabilitation, 52, 175.

APPENDIX

QUESTIONNAIRE OF PSYCHO-SOCIAL ADJUSTMENT TO DYSPHASIA

QUESTION	CATEGORY OF RESPONSE
1. Are things different for you/him? If so, how?	Yes | No | Don't know Communication........... ☐ Emotional life.......... ☐ Physical life........... ☐ Social life............. ☐
2. Does the speech difficulty affect you/him? If so, how?	Yes | No | Don't know Depression.............. ☐ Agression............... ☐ Withdrawal.............. ☐ Acceptance.............. ☐ Others.................. ☐
3. Does the speech difficulty affect the family? If so, how?	Yes | No | Don't know Relationships........... ☐ Aspirations............. ☐ Social life............. ☐ Role change............. ☐ Others.................. ☐
4. Can you/he express what you/he wants to say?	Mild difficulty in finding words or expressing ideas.................. ☐ Marked difficulty in expressing long or complex ideas............. ☐ Ready communication with single words or short phrases................ ☐ Expresses needs or wishes in limited or defective manner................ ☐
5. Can you/he understand everything that is said to you/him?	Follows conversations with little difficulty. ☐ Follows most conversations but sometimes fails to grasp essentials............. ☐ Follows simple conversation but requires repetition............ ☐ Follows brief statements with considerable repetition............ ☐

QUESTION	CATEGORY OF RESPONSE
6. What do you think your speech will be like a year from now?	Mild difficulty in finding words or expressing ideas....... ☐
	Marked difficulty in expressing long or complex ideas.......... ☐
	Ready communication with single words or short phrases.......... ☐
	Expresses needs or wishes in limited or defective manner....... ☐
7. What troubles you most about your speech difficulty?	Word finding............ ☐
	Word formulation........ ☐
	Understanding speech of others.............. ☐
	Others.................. ☐
8. Do you understand why you have difficulty with speech?	Yes..................... ☐
	Mostly.................. ☐
	A little................ ☐
	No...................... ☐
9. What helps your speech most?	Psycholinguistic........ ☐
	Social.................. ☐
	Emotional............... ☐
	Others.................. ☐

****

A COMPARATIVE STUDY
OF REFERRALS AND THE WORK UNDERTAKEN AT
TWO GERIATRIC DAY HOSPITALS

Ann Cousins, Dip. C.O.T.,
Senior Occupational Therapist
Belmont Hospital, Tiverton.

and

Sally Hale, Dip. C.O.T.,
Senior Occupational Therapist
Freedom Fields Hospital, Plymouth

A COMPARATIVE STUDY
OF REFERRALS AND THE WORK UNDERTAKEN AT
TWO GERIATRIC DAY HOSPITALS

Ann Cousins, Dip. C.O.T.,
Senior Occupational Therapist
Belmont Hospital, Tiverton.

and

Sally Hale, Dip. C.O.T.,
Senior Occupational Therapist
Freedom Fields Hospital, Plymouth

CONTENTS

ACKNOWLEDGEMENTS

This project was undertaken whilst the authors were students on the Continuing Education Scheme of the Postgraduate Medical School, University of Exeter. Without the generous support of the King's Fund this project would not have been possible.

The authors are indebted to Rita E.A. Goble, B.A., M.B.A.O.T., O.T.R., and Naomi Dunkin, Ph.D., M.B.A.O.T., T. Dip., S.R.N., C.P.A., for their unending enthusiasm and support.

ABSTRACT

Day Hospitals have without question, become a necessary and important part of the Geriatric Service. It has been the object of this study to ascertain whether initial referral reasons matched the reasons for attendance at a Day Hospital. The criteria for referral fell into six categories as defined by Brocklehurst in 'Progress in Geriatric Day Care'.

Data was collected from two Day Hospitals, one in a rural area and one within a city. The information was gained by use of a questionnaire given to a random sample of 30 patients from each Day Hospital during one specified week.

Results showed that all patients fell within the criteria classification, the majority falling into the following three categories:-

1. Rehabilitation
2. Rehabilitation, Medical Investigations and Procedures
3. Social Support

When closely comparing the results from both Day Hospitals the relative needs of the patients attending and the use of basic resources available were vastly different. Without a more detailed examination of the background reasons behind this it would be impossible to ascertain why the differences in the two Day Hospitals proved to be so great. This would indeed provide an interesting and natural subsequent study.

INTRODUCTION

Since the opening of the first Day Hospital in 1958, at Cowley Road Hospital, Oxford, the Day Hospital concept has become very much a part of the provision of the health service for Geriatric care. In his book, Brocklehurst (1980) states that the purpose of the Geriatric Day Hospital cannot easily be defined because it includes a number of objectives which apply to different patients at any one time and some which may apply to any one patient at different times. He also concludes by saying that the most important factors in the care of Day Hospital patients are Rehabilitation, Assessment, Medical and Social Care.

Day Hospital care was discovered as having made a definite contribution in the care of the elderly in the community in a study by Bendall (1978) which examined the changing work pattern of a Geriatric Unit over 25 years. McNicoll and Comben (1979) showed that patients attending Day Hospitals are more likely to be attending for social reasons than for physical reasons: over 50% of patients attended for social reasons but were also being 'treated' by therapists just because they attended, not because they really required it.

Without doubt Day Hospitals are here to stay and provide a very important part of the Geriatric service - but how well are they being used? Initial referrals often do not appear to meet the criteria for treatment within a Day Hospital.

Based on the criteria for referral used by Brocklehurst, this paper examines the relationship between their original referral and the treatment received by patients.

METHODOLOGY

Data was collected from Belmont Day Hospital in the rural area of Tiverton and from Freedom Fields Day Hospital situated in the city of Plymouth. Both were adapted premises and were open five days a week, Belmont having 30 places per day and an average of 12 new patients per month, whereas Freedom Fields has 30 places daily and an average of 26 new patients per month.

The study was carried out by taking a random sample of the patients attending each Day Hospital during one week in January 1982. Six of the elderly patients attending were interviewed each day from Monday to Friday, obtaining as wide a sample of typical patients as possible. Information was obtained by completing a questionnaire with each patient (see Appendix I).

The questionnaire consisted of 15 questions, divided into two sections. The first, which was completed by the interviewer, covered such questions as age, diagnosis, initial referral reason, method of referral, date of admission to the Day Hospital and treatment received. This information was obtained from medical and treatment records.

The second section was completed while interviewing the patient, and covered questions related to transport to the Day Hospital, home situation, treatment by the Chiropodist, Hairdresser, Speech Therapist, Dietician or Social Worker, and details of attendance. Each patient gave verbal replies to the questions and the interviewer filled in the questionnaire since the majority of the patients could not have completed their own form.

The patients were assured that the forms were confidential and that his/her anonymity would be preserved.

GENERAL CONDITIONS IN THE TWO HOSPITALS

The staffing levels in the two units proved to be quite different and played a decisive role in the results described later.

Figure I - Staffing Levels

Staff	Belmont	Total Hours per week	Freedom Fields	Total Hours per week
Medical	Consultant Geriatrician	3	Clinical Specialist	Full-time
	Clinical Assist.	5		
Sister	1	30	1	37½
S.E.N.	2	48	2	75
Aux.Nurse	3	60	2	57½
Occ. Therapist	1	36	1	36
O.T. Helpers	2	45	-	-
Physio.	1	25	3	64
Domestic	1	22½	1	40
Secretary /Clerk	1	15	1	30

In both units a Speech Therapist, Social Worker and Chiropodist visit when required; and a Hairdresser spends one morning per week at Belmont Day Hospital.

Patients were referred to both Day Hospitals by the Consultant Geriatricians and on admission all were examined and assessed for necessary treatment by a doctor and then by an occupational therapist or physiotherapist. A regular multi-disciplinary case conference was held in both Day Hospitals. In both hospitals, patients were reviewed at regular multi-disciplinary case conferences, with attendance being reduced to one or two days per week before discharge.

Good liaison was maintained with other facilities for the elderly in each area, e.g. Day Centres, Over 60 Clubs, luncheon clubs and other Day Hospitals, so that cross referral to any of these centres could be made if necessary.

RESULTS

From the questionnaires six reasons for referral in terms of treatment needs, could be classified. These reasons for referral are amplified in the Glossary, Appendix II, and are summarised in the table below.

Figure II - Frequency of referral reasons

Reason for Referral	Freedom Fields	Belmont	Total
Rehabilitation only	11 (38.8%)	15 (50%)	26 (43.3%)
Rehab., Medical Investigations and Medical Maintenance	9 (30%)	1 (3.3%)	10 (16.6%)
Nursing Procedures only	4 (13.3%)	-	4 (6.6%)
Physical Maintenance	3 (10%)	6 (20%)	9 (15%)
Medical Maintenance only	2 (6.6%)	-	2 (3.3%)
Social Support	1 (3.3%)	8 (26.6%)	9 (15%)
TOTAL	30 (100%)	30 (100%)	60 (100%)

The length of time patients had been attending the Day Hospitals varied considerably. At Freedom Fields 26 patients had attended for three months or less (13 of these for less than one month) and none for more than one year : in contrast half of the patients at Belmont had been attending for six months or more.

At Freedom Fields, nine patients were referred from residential homes; the rest and all those at Belmont were living alone or with family/friends.

All the patients attending the Day Hospitals travelled either by Ambulance or by Hospital Car Service. At Freedom Fields fifteen travelled by ambulance and fifteen by car, while at Belmont seventeen came by ambulance and thirteen by Hospital Car. In both cases the majority (28 from each Day Hospital) travelled ten miles or less to attend for treatment.

No patients at either Day Hospital had seen a Chiropodist; only one patient at Freedom Fields had seen a Dietician; ten at Belmont had seen the Hairdresser and six at Freedom Fields and sixteen at Belmont had Social Work involvement.

The attendances of the patients at the Day Hospitals varied. No patients from Belmont attended for half days but at Freedom Fields six attended once a week for half a day and five attended twice a week for half a day. The remainder attended all day - eight spent one day a week at the Day Hospital, nine spent two days and two more than two days. At Belmont seven attended once a week and 23 attended twice a week.

DISCUSSION

In the study a total of 78.8% of the case load at Freedom Fields and 73.3% of the case load at Belmont (overall 74.9%) were referred for reasons which would theoretically make full use of the facilities available in the Day Hospital and involve most of the treatment team. However, a chi-square statistical test carried out on these numbers showed a significant difference between the two Day Hospitals in the reasons for referral. ($p = < \cdot 01$). These differences were most apparent in the numbers referred for Medical, Nursing and Social reasons.

Physical Maintenance was seen to be important as this prevented physical, mental and behavioural deterioration which might well result in the need for admission to an in-patient bed. It is possible that some of these patients might be more appropriately referred to Day Centres but the majority in the study were receiving active Occupational Therapy and Physiotherapy. The results suggest that the Day Hospitals served an important role in maintaining people in the community - 66.6% from Belmont and 33.3% referred from Freedom Fields for Physical Maintenance lived alone.

At Freedom Fields no patient had attended for longer than twelve months - this was because those needing longer term maintenance were referred to an alternative Day Hospital, a Psychiatric Day Clinic or an Age Concern Day Centre. These facilities were not available within the catchment area of Belmont.

A total of 26.6% of referrals to Belmont were for Social Support; also 50% had been attending for well over six months. It could be assumed that this is because in a rural catchment area there is no other establishment to meet the needs of those patients. Likewise at Freedom Fields 33% of patients interviewed lived in some form of residential home and 13.3% attended for Nursing Procedures only: it is possible that these patients could have been treated by the District Nursing Services.

It could be seen that there were considerable differences between the two Day Hospitals; many of the differences were due to the geographical location of the separate units and the back up facilities available in these particular catchment areas.

One difference emerging from both Day Hospitals was that although the initial referral reason was appropriate in most cases - patients were sometimes not reviewed regularly enough and therefore they often continued to attend although their needs had changed and most probably the Day Hospital was no longer the most suitable place for them to attend. Correspondingly, this had consequences for the treatment staff who were spending time treating patients who might not have required their particular professional expertise.

CONCLUSION

In conclusion it can be said that all patients interviewed in the study did fall within the criteria for referral to the Day Hospitals and that in the majority of cases the patients did receive the specific treatment for which they had been originally referred. However, the basic needs and use of resources at the two Day Hospitals were completely different - therefore showing the versatility and importance of the Day Hospital within the Day Care Service.

The findings of the study provide material for several subsequent studies, for example to investigate why so many people attending the Day Hospital in the rural area had need of social support, why several people had been attending for over a year, and whether those attending Freedom Fields for Nursing Procedures only would have been as well treated by a Community Nurse.

BIBLIOGRAPHY

BENDALL, M.J. (1978) "Changing Work Pattern in a Geriatric Unit and the Effect of a Day Hospital".

BROCKLEHURST, J.C., (1980) "Progress in Geriatric Day Care".

McNICOLL AND COMBEN, (1979) "Geriatric Day Hospital - Remedial or Social?".

APPENDIX I

QUESTIONNAIRE ON THE USE OF THE DAY HOSPITAL

TO BE COMPLETED BY INTERVIEWER

NAME: DATE OF BIRTH:

ADDRESS:

DIAGNOSIS:

INITIAL REFERRAL REASON:

HOW WAS THIS PATIENT REFERRED:

- Consultant ☐
- G.P. ☐
- Domiciliary Physiotherapist or Occupational Therapist ☐
- Other ☐

DATE OF PATIENT'S FIRST ATTENDANCE AT DAY HOSPITAL: ☐☐☐☐☐☐

WHAT TREATMENT DOES THE PATIENT RECEIVE:

1. Medical Assessment and Investigations ☐

   Purely routine medical and nursing e.g. B.C.R., Diabetes, etc. ☐

   Purely routine nursing, e.g. enemas, bathing, etc. ☐

2. REHABILITATION

   Physiotherapy and Occupational Therapy ☐

   Physiotherapy only ☐

   Occupational Therapy only (including Splinting) ☐

3. SOCIAL SUPPORT ☐
4. ROUTINE MAINTENANCE ☐
5. ASSESSMENT, e.g. Part III accommodation, Wheelchairs ☐

TO BE COMPLETED BY PATIENT

HOW DID YOU TRAVEL TO THE DAY HOSPITAL - BY

- Ambulance ☐
- Hospital Car ☐
- Public Transport ☐
- Own Transport ☐
- Walked ☐

HOW MANY MILES HAVE YOU COME TODAY?

- 0 - 5 ☐
- 6 - 10 ☐
- 11 - 15 ☐
- Over 16 ☐

DO YOU LIVE:

- Alone ☐
- With Spouse/family ☐
- With friend ☐
- Institution ☐

AT ANY TIME WHILST ATTENDING THE DAY HOSPITAL HAVE YOU SEEN A -

- Chiropodist ☐
- Dietician ☐
- Social Worker ☐
- Hairdresser ☐

HOW OFTEN DO YOU ATTEND?

- A.M. only ☐
- P.M. only ☐
- All Day ☐
- Once a week ☐
- Twice a week ☐
- More than twice a week ☐

DO YOU GO TO ANY OTHER CENTRES DURING THE WEEK

IF SO PLEASE SPECIFY ....

WHY DO YOU THINK YOU ARE ATTENDING THE DAY HOSPITAL? ....

....

APPENDIX II

ii. Glossary

Operational Definitions

REHABILITATION - a process anticipating recovery or improvement, the means to overcome disability and regain abilities, which also implies the recognition of the disability and its cuase. Rehabilitation is carried out by members of the Day Hospital team - Physiotherapist, Occupational Therapist, Speech Therapist, supported by the rest of the staff.

MAINTENANCE - follows rehabilitation and aims to maintain the level of independence achieved by the rehabilitation. This can be applied to the physical (functional) or medical (chemotherapy monitory) state of the patient.

MEDICAL ASSESSMENT AND INVESTIGATIONS - specific blood tests, x-rays, medical examinations and chemotherapy monitoring.

ROUTINE MEDICAL AND NURSING - those treatments carried out on a regular basis by medical/nursing staff, e.g. monitoring of diabetes and B.C.R.

ROUTINE NURSING PROCEDURES - including bathing, dressings, enemas, bladder washouts, etc.

SOCIAL SUPPORT - the need for someone to be removed from their home environment for an amount of time each week to provide relief for relatives or those caring for the person, provide stimulation for the patient who would otherwise become depressed, to provide social contact for a patient living alone.

A STUDY OF THE SOCIAL
ACTIVITIES OF DISABLED PEOPLE

Tina Cawthraw, Dip. C.O.T.

Senior Occupational Therapist
Tavistock Social Services
Tavistock
Devon

CONTENTS

ACKNOWLEDGEMENTS

This project was undertaken whilst the author was a student on the Continuing Education Scheme of the Postgraduate Medical School, University of Exeter. Without the generous support of the King's Fund this project would not have been possible.

ABSTRACT

During March 1982 a survey was undertaken by postal questionnaire which sampled the quality and quantity of social life enjoyed by disabled people.

A good response was obtained to the questionnaire and results showed that disabled people were, in general, restricted in their social life. Existing use of specialised facilities was shown to be low and preference for better integration in the normal life of the community was demonstrated.

Practical barriers, such as difficulty of access, were a considerable problem, but the general feeling of ill health and tiredness caused by the disability itself were shown to be of even greater importance.

INTRODUCTION

This research project was undertaken to identify the needs, difficulties, and attitudes of a group of disabled people with regard to their social life, so that the results of the survey could be used to assist people to as full a life as possible in the community.

The project was carried out during March 1982 in the area covered by the author's Social Services Team. This comprised Plympton (pop. 24,000) - a suburb of Plymouth, and Ivybridge (pop. 5,000) - a small town ten miles from Plymouth. These areas were considered from the point of view of the similarity of their situation rather than in contrast to each other. A postal questionnaire was sent to forty-five disabled people and thirty-six questionnaires were returned.

(N.B. The term "disabled" has been used throughout this paper as a matter of personal preference by the author, and also because this appears to be the term in most common usage in modern literature, i.e. Chronically Sick and Disabled Persons Act; Royal Association for Disability and Rehabilitation.

In her survey in 1971, Harris defined the term thus:- Disability - the loss or reduction of functional ability; and Handicap - the disadvtanage or restriction of activity caused by disability.)

EXPERIMENTAL DESIGN

(i) The Sample

It was decided to study a sample of people who would normally be identified as "disabled" by the rest of the community. This sample was obtained from the computerised records of Devon County Council's Register of Handicapped Persons to avoid the bias implicit in personal caseloads. Also, since it was intended to study a group of people with mobility problems, it was considered that most of these would have registered with the Department in order to obtain their "Orange Badge" (Parking Disc for the severely handicapped).

The sample included forty-five people, defined by five factors: Age, Address, Type of Handicap, Degree of Handicap, Degree of Mobility.

The limits applied to these five factors were:

(a)	Age	Between 18 and 65
(b)	Address	Living in the towns of Plympton and Ivybridge. These two towns were considered to have similar positions from the point of view of this study, i.e. both are "commuter" areas for Plymouth, of expanding population, and relying on Plymouth for most recreational facilities.
(c)	Type of Handicap	Only handicaps arising from amputation, arthritis, congenital defects, injuries, and diseases of the nervous system, were included.

(d) Degree of Handicap The sample included only those of very severe, severe, or appreciable handicap grades of the register.

(e) Mobility Mobility was defined as "restricted" or "with use of aids only", including those using wheelchairs.

(ii) The Questionnaire

This was developed in three stages involving two pilot studies. These were done by personal interview in order to obtain as much information from the respondents as possible. It was found that disabled people's social activities consisted largely of visiting friends and relatives. This point was therefore specifically included, along with several other minor amendments, in the final draft of the questionnaire (See Appendix 3).

The questionnaires were sent out with personally addressed letters and people were asked to reply within two weeks. Thirty-six replies were received but two were disqualified on grounds of partial completion only and removal from the Plymouth area.

The responses of the remaining thirty-four subjects were analysed.

RESULTS

Age
Range 20 - 65
Mean 42.3
Mode 40 - 49

Sex
Almost twice as many men were included in the responding sample than women (22:12).

Address
The majority of those circulated in Plympton, but only half of those living in Ivybridge, returned the questionnaire (27:7).

Employment

Table I

Employment	Number	Percentage
Full-time	5	25%
Part-time	3	09%
Not working	15	44%
Housewife	7	20%
Full-time education	1	03%
Other	2	06%
		97%

(One person did not reply to this question).

Almost half of those questioned were not working.

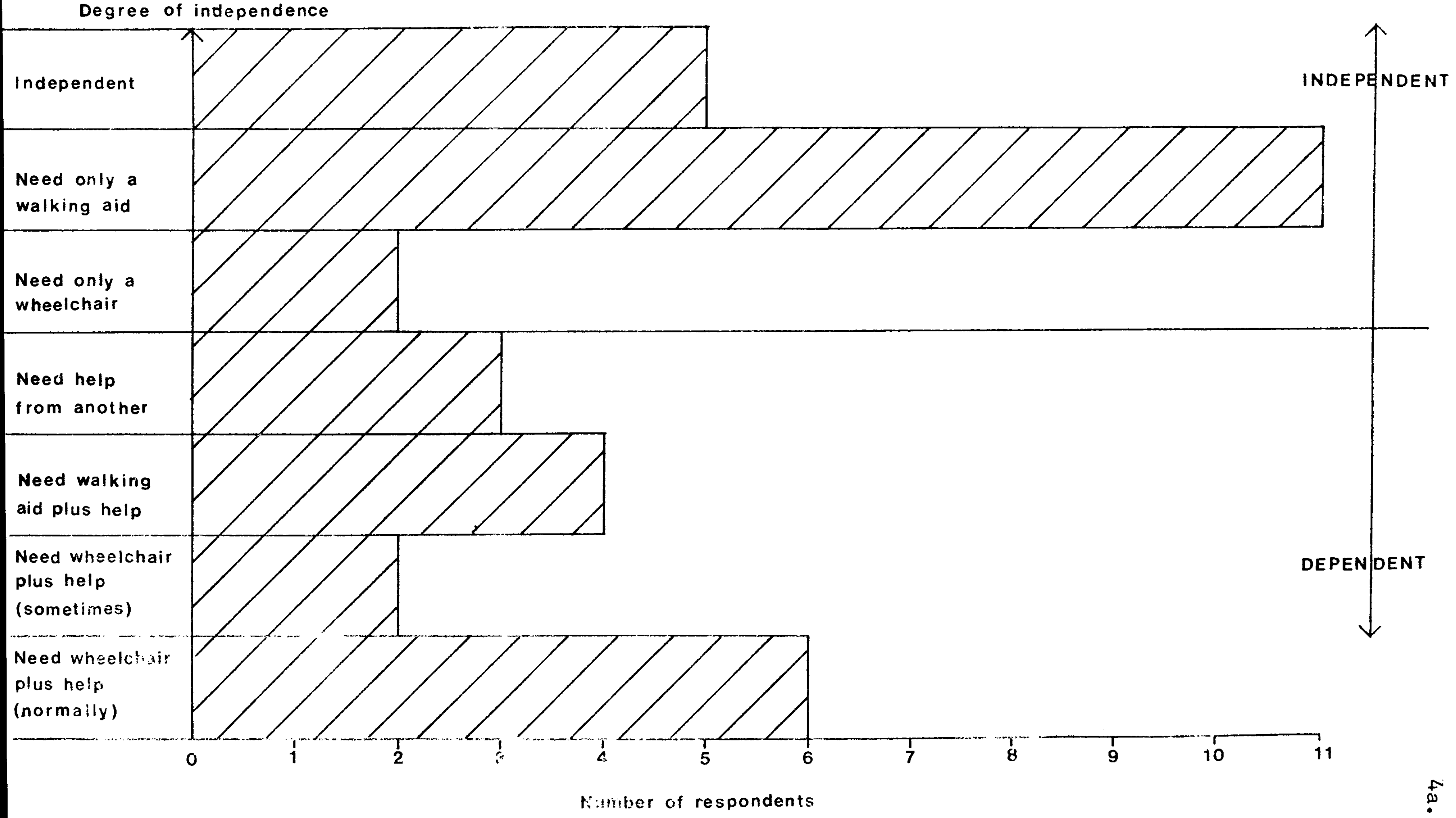
Mobility

The categories listed under the questions about mobility were not mutually exclusive and several people ticked combinations of two or three of them.

One person did not reply to this question. (see Graph i)

Graph i)

MOBILITY OF RESPONDENTS



The total number using aids was twenty-five, eighteen people were independent with or without aids, and fifteen needed to be accompanied by someone when they were outside their homes.

Chi-squared test indicated no association between the independence in mobility of respondents and their attendance at social activities for the general public.

Current social activities

Table II

Activity	Number Participating	Percentage
Sport	4	12%
Educational	1	03%
Visiting friends and relatives	28	82%
Visiting cinema/theatre	9	26%
Day centre	2	06%
Club or society meetings	10	29%
Visiting pub/eating out	20	59%

Attendance at social activities

Only two of the sample joined in social activities for disabled people on an occasional basis and none attended such activities regularly.

Two people failed to answer the question related to social activities for the general public: of the remaining thirty-two, fifteen attended occasionally and five were involved regularly.

Current choice and variety of social activities

The majority of the sample was involved in visiting friends and relatives 28 (82%) with 20 (59%) visiting pub/eating out.

A total of twenty-three people said they had two or more activities in their social life, nine had one activity only, and two had no social activities at all.

Twenty-nine people stated they had given up a previous social activity because of their disability, while five people had not done so.

Table III summarises the responses received on the question of the relative importance of a variety of problems. It is evident that the greatest difficulty stemmed from a general feeling of being tired and unwell.

Difficulties encountered

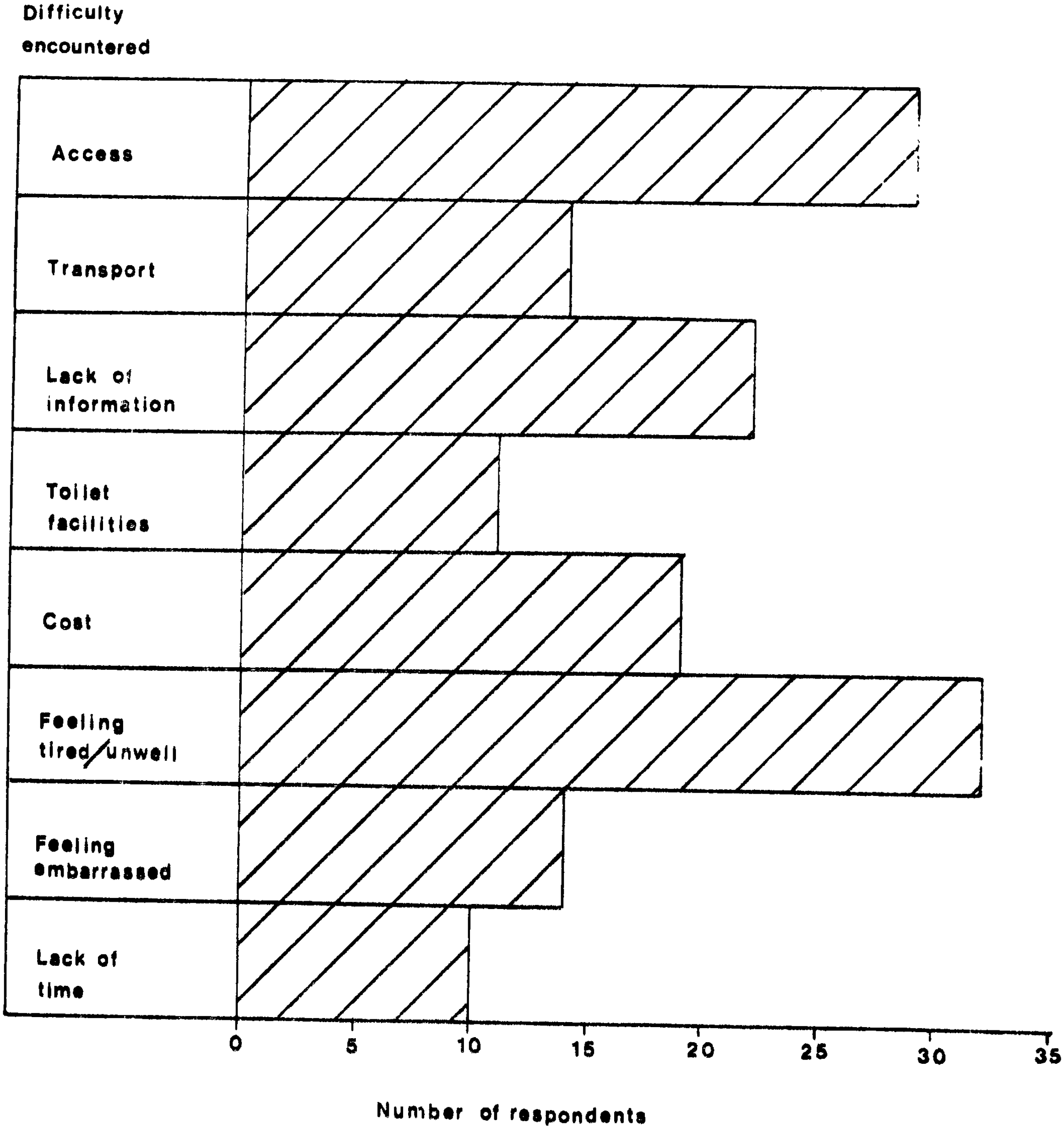
Table III

Difficulty	Degree of importance							
	Very Great		Great		Some		None	
Access	10	29%	8	24%	11	32%	5	15%
Transport	7	21%	3	9%	4	11%	20	59%
Lack of information	7	21%	8	23%	7	21%	12	35%
Toilet facilities	5	15%	6	18%	0	0%	23	67%
Cost	12	35%	2	6%	5	15%	15	44%
Feeling tired/unwell	11	32%	7	21%	14	41%	2	6%
Feeling embarrassed	1	3%	2	6%	11	32%	20	59%
Lack of time	3	9%	1	3%	6	18%	24	70%

Also see Graph (ii)

Graph ii)

DIFFICULTIES EXPERIENCED BY DISABLED PEOPLE IN ARRANGING THEIR SOCIAL LIFE



Wheelchair Users

The problem of access for the five out of ten (50%) of the wheelchair users was very great, while a further three people said they had great difficulty with access.

The comments made about other factors causing diffulty were concerned with those which fell into one of the categories listed in Table III, EXCEPT in the case of two people who had problems with seating and one who lacked "company".

A total of twenty-three people (68%) said that they would like to attend more social activities.

Twelve people (35%) stated that they would like to attend more activities for the general public but would not attend groups for the disabled, while four people (12%) stated that they would like to attend more activities for the disabled but would not attend activities for the general public. In addition, seven people (20.5%) were happy to attend either type of activity.

Chi-squared test indicated an association between the severity of disability of respondents (as indicated by degree of mobility) and their willingness to attend social activities for disabled people.

Preferred time

Only the twenty-three people who answered "Yes" to either of the previous two questions were instructed to reply to the question dealing with preferred time for social activities. Categories of preference were not mutually exclusive. The replies were equally divided between afternoon and evening preferences, with only two people expressing an interest in a morning activity.

Twenty people made comments in answer to the question asking for the kind of social activity they would like to take part in: of this group, eleven people expressed an interest in sport, either as a player or as a spectator.

Similarly, eleven people expressed interest in some kind of cultural activity. In addition, seven people specifically mentioned that they would like to "meet other people".

Further comments or suggestions

Twelve people took the opportunity to make further comments at the end of the questionnaire. These were mostly added in order to qualify a previous response or to give detail about a personal situation.

Four people wrote long paragraphs expressing their feelings and views on disability.

DISCUSSION

(i) Interpretation of Results

(a) Replies received. The percentage of replies received was high (80%) and the general impression was that people had taken time and trouble in completing the questionnaire. Extra words and comments were often added and these were (with one exception) serious and thoughtful.

This would seem to indicate a high level of interest in this subject amongst disabled people.

It was interesting that most comments made had a negative slant, e.g. "should not be allowed", "I resent", "I worry", - but this perhaps only indicates that the most dissatisfied people were those most likely to express their views.

(b) Age. The average age of respondents (42 years) was low. This was presumably a result of deliberately choosing a sample of people of working age. In fact, the Office of Health Economics report "Physical Impairment: Social Handicap" states that 'Most physical limitation occurs amongst people aged 50 years or more....', and supports this with evidence from Harris (1971).

(c) Employment. Given the low age range of the sample and the fact that two-thirds of the sample were men, it is worth noting that almost half were "not working". This is perhaps not surprising given the initial definition of "Very Severe", "Severe", or "Appreciable" Handicap. But it is worth noting in relation to the very low numbers (6%) attending Day Centres.

This reveals how small a proportion of the working age disabled population our Day Centres are serving, and prompts question as to how the remainder spend their days.

(d) Mobility. It was also not surprising, given that only persons with mobility problems were included in the sample, to discover that nearly three-quarters of them normally used an aid of some kind, whether a walking aid or a wheelchair. What was not anticipated was the high proportion (almost half) who felt that they needed to be accompanied by someone else when they went out. This would be an important point to remember when planning social activities for disabled people.

On the other hand, architects planning access to public buildings often seem to assume that "the disabled" will be accompanied by a helper, and this was shown to be not the likely case for over half of the sample. The problems this can cause are nicely illustrated by Ann Shearer in her book "Disability : Whose Handicap?" "A woman decided to go to an art exhibition. She can't exactly drop everything and go while she's in the mood; preparations for going out take some time, so does phoning round a number of friends to find one who is free and wants to see the exhibition too. Once she arrives there, she can't exactly just go in. Her friend has to find an official, and he has to find his friend...."

Interestingly, and also in contrast to commonly held notions of "disability", only about a quarter of the sample normally used a wheelchair, and this amongst a group of people originally defined as being at least appreciably handicapped and having mobility problems.

(e) Current Social Activities. In general the quantity of social life enjoyed by the sample appeared to be low, with only 15% attending any kind of activity on a regular basis. However, the majority (88%) did go out "occasionally".

By far the most popular kind of "trip out" was to visit friends and relatives, mentioned by 82% of respondents.

These findings coincide closely with those of Gormley and Walters in 1978, whose primary conclusion in a study of the Mobility Needs of Disabled People was that: "Disabled people go out infrequently, for short periods, and the types of trip they do make are largely restricted to essential shopping, and visiting friends and relatives..."

In a question asking people what kind of trip they made most often outside the home, 51% of Gormley and Walters sample mentioned "Visiting friends and relatives" first. The second most popular activity in the present survey was "visiting the pub or eating out", which was enjoyed by 59%. All other kinds of social activity listed in Table II were each attended by less than a third of the sample.

In retrospect, these findings would have perhaps been more valid had they been compared with the results of a parallel study of able-bodied people. But the conclusion that people's social lives had been impoverished by their disability was upheld by the striking response to the question which asked people whether they had given up previous interests. 85% of the group stated that they had given up a previous social activity because of their disability. (It seems unlikely that a large proportion of these people were previously hang-gliding enthusiastis!)

This finding is most important because we must remember that in giving up an interest, the disabled person is not only losing the enjoyment that he had from that interest, but also the circle of friends that probably went with it.

(f) Integration or Segregation? Should we therefore be providing more facilities for disabled people, or should we be trying to integrate them into the "normal" community? According to Ann Shearer, "People may find themselves offered a range of compensations... There are special environments, special clubs, and special approaches to ordinary ones, group outings for people who have disabilities". The results of this survey tend to support the view that disabled people prefer to be "integrated" rather than "segregated".

When asked about their present social activities, 94% never attended anything specially organised for the disabled, and the remaining 6% attended occasionally.

Also, two-thirds of the sample would like to go out more in the future: of this group, over half stated that they would only go to activities for the general public. One-third of this group was happy to attend either activities for the disabled or activities for the general public and, interestingly, a small proportion (about a sixth) only wanted to attend a "disabled" group.

The above results have implications for any person or organisation, such as a Social Services Department, planning to start up a "club" for disabled people. It would appear that in any given population of disabled people, about two-thirds might be interested in a new venture, and of these about half would be willing to attend a segregated group. Thus one arrives at a potential membership of about one-third of the originally considered population.

(g) Level of Satisfaction. How happy are disabled people with their present situation? With hindsight, this would have been an interesting question to have asked directly. As it is, we can obtain a rough indication from the fact that 68% of the sample said that they would like to be doing more.

(h) The Difficulties. So what are the difficulties? Overwhelmingly, the most common difficulty appeared to be "Feeling unwell or over-tired". 94% of the sample said that this had been a problem for them and for 32% it had been of "very great importance".

It would be interesting to investigate this further, for example to relate "feeling unwell" and "feeling tired" to those diseases such as rheumatoid arthritis and multiple sclerosis, where this is a recognised symptom.

How much is "feeling over-tired" a result of the effort involved in getting around due to mobility problems?

Or is this feeling symptomatic of the depression/lethargy into which one may sink when working life/social life become curtailed - thus forming a vicious circle of withdrawal - depression - withdrawal?

"Access" was, not surprisingly, the second most important factor causing difficulty. 85% of people had had problems, and for 29% "access" had caused "very great difficulty".

The subject of access is already well aired and it is not the purpose of this paper to discuss this in detail. Perhaps suffice to comment that research in the United States indicates that to make a new building completely accessible to disabled people adds only half of one per cent to the total cost.

It is also important to note that this result was obtained with a sample of whom only a quarter used wheelchairs. The difficulties of access for the ambulant disabled are perhaps too little publicised.

The third most common "difficulty" was found to be "Lack of information about what is available". This was a problem for 65% of the group and was also mentioned separately by several people at other points in the questionnaire.

This would seem to indicate a need for a more comprehensive method of communicating information to disabled people in the area. It must be remembered that if, as previously quoted, "Disabled people go out infrequently, for short periods", they are less likely to see posters and adverts in local shops and newsagents' windows.

In his paper presented at a Congress of Rehabilitation International, Ken Davis, Coordinator of DIAL UK, stated that "Open information is the raw material of knowledge. Knowledge is the basic tool needed to participate effectively in any activity or social organisation ... In the absence of open information disabled people cannot effectively participate in their society", and advocated "that the most effective way to disseminate such information is to provide it at the local level".

Fourthly, 56% of respondents said that "Being unable to afford to go out" was a problem, this despite the fact that it would be reasonable to assume that a good proportion of the sample, being under 65 years of age and of severe or appreciable handicap, would be in receipt of Mobility Allowance.

Harris and her colleagues estimated that in the late 60's about a quarter of all "impaired" people had incomes below supplementary benefit rates, whilst more recently the Disability Alliance (1977) calculated that around half the population of impaired individuals live on incomes at or around supplementary benefit level (Taylor 1977).

Again, it is not the purpose of this survey to discuss this point in detail, but Jean Simkins' paper "Financial Provisions for Disabled Families" (1978) explains the situation well.

The remaining "difficulties" listed in Table III ranked thus:-

5th	Feeling embarrassed
6th	(Lack of suitable toilet facilities (Lack of suitable transport
8th	Lack of time because of other commitments

Each of these had caused no difficulty to over half of the sample.

In view of the large amount of literature on the psychological aspects of disability (Shearer, 1981, Chapter 6, and Hunt, ed. 1966) the response to "feeling embarrassed" was lower than anticipated.

Kleck (1969) found that "The reaction of an able-bodied person to disabled people differs from his reaction to other able-bodied people: for example, his behaviour is more embarrassed, he terminates the meeting sooner, and he expresses opinions which are less representative of his actual beliefs".

However, only three people (9%) of those questioned in this survey felt that "embarrassment" was a great or very great problem.

(i) The Future. As previously stated, 68% of the sample wished to participate more in social activities in the future. It is impossible to estimate how realistic each person was in suggesting what they would like to do, but none of the comments appeared outrageous and all the activities mentioned (in total 22) could be open to participation by disabled people, given a little thought and ingenuity on the part of the "organisers".

In contrast to the common perception of the disabled person doing craft work at a Day Centre, only one person mentioned "making things", and "sport" was a very popular idea.

It was also interesting to note that several people mentioned specifically "meeting people" and again, challenging the traditional role, several emphasized their desire in some way to be of service to others.

Miller and Gwynne (1972) said that "In not expecting anything from the disabled, society infantilises them and even forces them into a parasitic position.... Infantilisation takes many forms. Treats and outings laid on for the disabled are one example".

(ii) Summary

The findings of this project have implications for all those, whether amateur or professional, involved in the welfare of disabled people in the community.

For the community occupational therapist, who wishes to practise occupational therapy in its broadest sense, i.e. the physical, psychological, *social* and economic rehabilitation of the patient, a whole new area of work is available.

How often are community O.T.'s restricted by sheer volume of work to the field of "Aids" and "Adaptations", when the Chronically Sick and Disabled Persons Act 1970 equally states that "Where a local authority ... are satisfied ... that is is necessary in order to meet the needs of that person for that authority to make arrangements for ... the provision for that person of lectures, games, outings or other recreational facilities outside his home or assistance to that person in taking advantage of educational facilities available to him ... then ... it shall be the duty of that authority to make those arrangements ... (Section 2, subsection [1]).

This survey shows that more work is needed in encouraging disabled people to participate more fully in the community and in encouraging the community to remove more of the barriers which prevent this.

CONCLUSIONS

The main conclusions of the research were:-

1. That disabled people in the community tend to lead a restricted social life, the majority going out only occasionally and then usually to visit friends or relatives.

2. That the illness of itself is a major factor in preventing disabled people from going out more, but that difficulty of access, lack of information, and low income are also restricting factors.

3. That many disabled people would like to go out more and would like to be integrated with the able-bodied into a wide range of activities.

4. That we can best help them to achieve this by
    (a) improving access to public places
    (b) providing more information about facilities
    (c) seeking to improve the financial situation of the disabled.

Fourthly, 56% of respondents said that "Being unable to afford to go out" was a problem, this despite the fact that it would be reasonable to assume that a good proportion of the sample, being under 65 years of age and of severe or appreciable handicap, would be in receipt of Mobility Allowance.

Harris and her colleagues estimated that in the late 60's about a quarter of all "impaired" people had incomes below supplementary benefit rates, whilst more recently the Disability Alliance (1977) calculated that around half the population of impaired individuals live on incomes at or around supplementary benefit level (Taylor 1977).

Again, it is not the purpose of this survey to discuss this point in detail, but Jean Simkins' paper "Financial Provisions for Disabled Families" (1978) explains the situation well.

The remaining"difficulties" listed in Table III ranked thus:-

5th	Feeling embarrassed
6th	(Lack of suitable toilet facilities
	(Lack of suitable transport
8th	Lack of time because of other commitments

Each of these had caused no difficulty to over half of the sample.

In view of the large amount of literature on the psychological aspects of disability (Shearer, 1981, Chapter 6, and Hunt, ed. 1966) the response to "feeling embarrassed" was lower than anticipated.

APPENDIX I Handicap codes, as relating to registration with Devon County Council Social Services Department.

Code	Handicap
70	BLIND
	PARTIALLY SIGHTED*
71)	Near and Prospectively Blind
72)	Substantially Handicapped
73	SIGHT UNDER OBSERVATION*
74	DEAF WITH SPEECH*
75	DEAF WITHOUT SPEECH*
76	HARD OF HEARING*
	GENERAL CLASSES - PHYSICALLY HANDICAPPED/MENTALLY ILL
77	Amputation
78	Arthritis or rheumatism
79	Congenital malformations or deformities
80	Diseases of the digestive and genito-urinary systems, of the heart or circulatory system, of the respiratory system (other than tuberculosis), or of the skin
81	Injuries of the head, face, neck, thorax, abdomen, pelvis, or trunk. Injuries or diseases (other than tuberculosis) of the upper and lower limbs and of the spine
82	Organic nervous diseases - epilepsy, disseminated sclerosis, poliomyelitis, hemiplegia, sciatica, etc.
83	Neuroses, psychoses, and other nervous and mental disorders not included in Code 82
84	Tuberculosis (respiratory)
85	Tuberculosis (non-respiratory)
86	Diseases and injuries not specified above.

* For details of these classifications, see next page

APPENDIX II Definitions of degrees of handicap as related to registration with Devon County Council Social Services Department.

DEGREE OF HANDICAP

1. THE VERY SEVERELY HANDICAPPED

Such persons are normally unable to live a fully independent life, and need appreciable help from others in the more important activities of daily life, and may also require major structural alterations to their home in order to maintain even minimal mobility.

"Appreciable help from another"

This means that the helper has to use mechanical equipment, or is under appreciable physical strain in manoeuvring the client.

"Major structural alterations"

Provision of adapted toilet, additional room, shower for an immobile person, wheelchair access, stairlift, etc.

2. THE SEVERELY OR APPRECIABLE HANDICAPPED

Persons who are able to retain a fair degree of independence by using simple aids, receiving minimal help from others, and may require minor adaptations.

"Minimal support"

Requires the help of another for confidence and a helping hand to retain balance and prevent accident.

"Minor adaptations"

Provision of grab rails, stair rails, ramps, alteration to steps, etc.

3. OTHER CLASSIFIED PERSONS

Persons who are able to remain independent with some difficulty, but who do not need help from another person. They may require mobility aids but mostly for confidence or to prevent accident.

In order that the Register reflects the true number of handicapped persons in each category, it is important that when assessing the client, factual information is gained of what the client can/cannot do. It is not sufficient to rely on what he "feels" he can/cannot do.

APPENDIX III Final questionnaire

The term "social activity" has been used in this questionnaire. This should be taken to mean any interest which takes you out of the house, for example - watching or playing sport; going to the cinema; day centres; evening classes; bingo; going to the pub; any kind of club or regular meeting.

QUESTIONNAIRE

1. Date of Birth ☐☐☐☐☐☐☐☐

2. Sex Male ☐ Female ☐

3. Do you live in Plympton ☐
   Ivybridge ☐

4. Are you employed full-time ☐
   employed part-time ☐
   not working ☐
   a housewife ☐
   in full-time education ☐
   other (please specify) ☐

5. Out of doors, do you normally

	YES	NO
use a walking aid	☐	☐
use a wheelchair	☐	☐
need to be accompanied by someone	☐	☐

	Regularly	Occasionally	Never
6. Do you attend:- a social activity organised for disabled people (please include PHAB)			
7. Do you attend:- a social activity available to the general public			

8. What kinds of social activities do you take part in now?
   Sport ☐
   Educational, e.g. evening classes ☐
   Visiting friends and relatives ☐
   Visiting the cinema or theatre ☐
   Day Centre ☐
   Club or society meetings ☐
   Visiting the pub or eating out ☐

9. Have you had to give up any previous social activity because of your disability?

   Yes ☐ No ☐

10. Listed below are some of the problems people encounter in arranging their social life. Please indicate how much difficulty each has caused you.

	Very Great Importance	Great Importance	Some Importance	No Importance
Access to buildings e.g. steps				
Lack of suitable transport				
Lack of information about what is available				
Lack of suitable toilet facilities				
Being unable to afford to go out				
Feeling unwell or over-tired				
Feeling embarrassed or self-conscious				
Lack of time because of other commitments e.g. work, family				

11. Are there any other factors which, you feel, limit your going out socially?

Yes ☐ No ☐

If yes, please specify:-

12. Would you like to attend more activities for disabled people?

Yes ☐ No ☐

13. Would you like to attend more activities for the general public?

Yes ☐ No ☐

14. If you answered YES to either of the last two questions, what time of day would suit you best?

Morning ☐
Afternoon ☐
Evening ☐

Briefly, what kind of social activity would you like to take part in?

If you would like to make any further comments or suggestions, please do so here.

THANK YOU FOR YOUR HELP