Evaluation of behaviour therapy intervention in general practice

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SUMMARY. Thirty general practitioner consultations with patients with psychological problems referred to a clinical psychologist for behaviour therapy, were examined. Treatment was carried out wholly within the practice. Consultations for advice and psychotropic drug prescriptions were compared during one year, both before and after treatment, and were found to be reduced by over 50 per cent following treatment. Contact with clinical psychology services, therefore, considerably reduced the demand made by these patients for general practitioner time.

Introduction

IT is clear from recent studies (Hassall and Stilwell, 1977; Westcott, 1977) that patients with some psychological dysfunction make more demands on general practitioner time than other groups of patients. Wilks (1975) concluded that patients receiving psychotropic drug therapy consulted 1·7 times more than the remaining patients, with a mean consulting rate of 4·8 during one year. These figures, it has been suggested (Hassall and Stilwell, 1977), may even be an underestimate of general practitioner time used owing to the longer consultation time ('long interview') given to this group of patients. For consultations in which the doctor does not prescribe Hassall and Stilwell (1977) found that this group of patients consulted twice as often as other groups, a proportion of 30 per cent of total consultation time.

Figures have been published indicating that liaison with psychiatric services did not reduce consultation rates (Hassall and Stilwell, 1977). In addition to these figures, the evidence from community surveys, according to McPherson and Feldman (1977), indicates that 95 per cent of psychological problems are dealt with by general practitioners without specialist help, and this treatment is considered to be most difficult and often inadequate (Shepherd *et al.*, 1966).

It has been suggested recently (Trethowan, 1977) that clinical psychologists can contribute much to diagnosis and treatment in general medical practice. Many problems classified as emotional or 'nervous' are not problems of mental illness but of training and behaviour. Clinical psychology services in the community are now more available because of relative ease and lack of stigma associated with surgery appointments. Description of such contributions to primary health care have been documented recently (McAllister and Philip, 1975; Broadhurst, 1977; Davidson, 1977).

Aim

In order to examine the viability of providing a direct clinical psychology service to one general practice, an attempt was made to measure demands made on general practitioners by patients with psychological problems, before and after behavioural psychotherapy.

Method

The involvement of clinical psychologists with one of the university teaching practices began in February 1975. At the time of this study, the group consisted of six doctors, one of whom was part time, and one a trainee. In order to improve the primary medical care available to their 12,500 patients, the general practitioners specifically requested help from a clinical psychologist. During the first three years of this service (two sessions per week), about 30 patients were referred each year (a total of 0·8 per cent of the registered population). All patients were seen at the surgery and were suffering from anxiety states, stress reactions, psychosomatic disorders, obsessional states, habit disorders of eating, smoking, and drinking, and problems of social, marital, or sexual dysfunction.

Treatment was predominantly behavioural psychotherapy consisting of specific behavioural programmes such as systematic desensitization, modelling, response

Table 1. Age and sex distribution (N=30).

Age	Male	Female	Both
Under 25	3	5	8
25 to 44	3	14	17
45 to 70	3	2	5
Total	9	21	30

prevention, thought stopping, operant conditioning, social skills training, and marital therapy. A treatment evaluation study of these patients was carried out. The three measures used were doctor consultation entries, repeat prescription entries, and clinical assessment of change completed by the therapist. The consultations were divided into:

1. Those where no prescription was recorded.
2. Those which resulted in psychotropic drug prescription (tranquillizers, antidepressants, sedatives, or hypnotics).
3. Those where drugs for physical complaints were prescribed.

A fourth category of 'mixed prescription' was used initially but accounted for only five per cent of consultations. Repeat prescriptions were divided into psychotropic drug and physical drug prescriptions. Clinical assessment of change was made on a three-point rating scale at termination of treatment (improved, no change, worse). This was a subjective assessment based on a retrospective review of the patient's case notes, involving ratings of symptom relief and psychological adjustment. The first 30 people referred to the clinical psychologist are included in this study.

Results

Table 1 gives the distribution of the 30 patients according to age and sex. Over two thirds (70 per cent) were females and over three quarters (83 per cent) were under 45 years of age.

The diagnostic distribution is shown in Table 2. The categories are those defined by Kincey (1974). The largest diagnostic group (70 per cent) was of patients with problems of anxiety and stress.

The mean time in treatment was 6·2 months (variation two to 16 months) with a mean of 8·8 contacts with the psychologist. The clinical rating by the therapist of patient change following completion of treatment indicated that over two thirds (73 per cent) of the patients seen appeared improved and no patients were considered to have deteriorated. Of the one quarter (27 per cent) who were rated unchanged, over half were seen for assessment only and were not recommended for treatment.

Table 2. Diagnostic distribution. Percentages are given in brackets.

Diagnostic group	Male	Female	Total
Anxiety and stress (free floating phobic anxiety, obsessional, compulsive disorders, avoidance of stress, and psychosomatic disorders)	4	17	21 *(70)*
Habit disorders (smoking, obesity, enuresis, drug addiction, tics, and stammering)	1	1	2 *(7)*
Interpersonal, social, and marital problems (social skills, deficits, social anxiety, inappropriate dyad communication, sexual dysfunction)	3	4	7 *(23)*
Total	8	22	30 *(100)*

The mean number of consultations per patient studied was 9·27 in the year before referral. This is even greater than the equivalent statistics provided by Wilks (1975) for psychiatric patients. This is due partly to the inclusion of home visits and also to the fact that these first 30 referrals to this new clinical service were predominantly the highly frequent attenders. This compares with the average frequency of attendance of patients at this practice of 3·31 and a national average of 3·00 (RCGP *et al.*, 1974).

On examination of the consultation figures during psychotherapy, the total number of general practitioner consultations was significantly reduced (*t* test; $p < 0{\cdot}001$) with the mean number of consultations per patient falling to 3·64. When the frequencies are examined more closely, it is seen that consultations for advice only and for psychotropic medication both decreased significantly, but those for physical drug prescription did not (Table 3). When examined for interaction effect with clinical rating of change, three relevant results emerged. Reduction in frequency of consultation for advice occurred in both the 'improved' and 'no change' group. Changes (which were not significant) in physical drug prescription were not differentiated here by the clinical ratings. However, reduction in consultation rate for psychotropic prescription applied to the 'improved' but not to the 'no change' group. The changes in repeat prescription rate indicated a significant reduction in psychotropic drug repeat prescriptions, with no significant change in physical drug repeat prescriptions (Table 4). Chi-squared analysis indicates a significant interaction ($p < 0{\cdot}02$) with clinical rating of change; in other words, there is a greater change in the 'improved' group for psychotropic drug prescription with little change in either category for physical drug prescriptions.

Follow-up results

The mean number of consultations per patient in the year after completion of psychotherapy was 5·46, which represented a significant reduction when compared with pre-treatment rates. Consultation rates for advice and psychotropic medication were significantly lower than before treatment with little change in physical drug consultation rates. All three types of consultation rate increased slightly compared with during-treatment rates. Repeat prescription rates were reduced significantly as a whole and specifically for psychotropic medication. The interaction with clinical improvement was significant ($p < 0·001$). In both consultation and repeat prescription variables, the percentage of physical drug therapy rates was increased.

Discussion

The results from this study indicate that contact with clinical psychology services in general practice is of value in reducing the disproportionally high frequency of doctor consultations and repeat prescriptions which have been found in this group of patients. This reduction is in the advice and psychotropic drug categories. It was not suggested that behavioural psychotherapy would necessarily reduce physical drug consultations and this variable showed appropriate stability in this study.

It is seen that the initial interview with the psychologist had an effect on reducing the advice consultations. This would be expected during psychotherapy where there is a regular attendance with the psychologist. However, after treatment, this reduction was maintained indicating a less transient change in the use of resources. Psychotropic drug consultations decreased throughout treatment. A minimal or absent level of psychotropic drug therapy is not necessarily a prerequisite for termination of behaviour therapy. Instruction is usually given to patients on how to reduce medication gradually when no longer seeing the therapist.

The figures suggest that after behaviour therapy to reduce the psychological dysfunction, just under half the subsequent doctor consultations were for physical drug prescriptions (40·5 per cent). Therefore, not only did the total frequency of consultations fall but the proportion of the remaining consultations which were for advice or psychotropic medication also fell. Similarly, the proportion of repeat prescriptions for psychotropic medication was reduced.

Historically, clinical psychologists have developed services within psychiatric hospitals rather than in primary care. However, at present, about one in seven clinical psychologists in Britain are working directly with general practitioners. This study has indicated that behaviour therapy intervention with the type of problems described above reduced the demand on

Table 3. Mean frequency of general practitioner consultations per patient one year before, during, and after behavioural therapy. Percentages are given in brackets.

	Mean frequency of consultation per person			Mean change in frequency	
Type of consultation	One year before treatment	During treatment*	One year after treatment	Before/during	Before/after
Advice only	3.4 *(36.7)*	1.27 *(35)*	2.1 *(38.4)*	2.13 (p<0.001)	1.3 (p<0.001)
Psychotropic prescription	2.47 *(26.7)*	0.80 *(22)*	1.13 *(20.7)*	1.67 (p<0.001)	1.34 (p<0.001)
Physical drug prescription	2.7 *(29.1)*	1.55 *(42.6)*	2.21 *(40.5)*	1.15 (NS)	0.49 (NS)
Mixed prescription	0.7 *(7.5)*	0.02 *(0.4)*	0.02 *(0.4)*	0.68 (NS)	0.68 (NS)
Total	9.27 *(100)*	3.64 *(100)*	5.46 *(100)*	5.63 (p<0.001)	3.81 (p<0.001)

*During treatment data pro-rated to annual rates.
NS not significant.

Table 4. Mean frequency of repeat prescriptions. Percentages are given in brackets.

	Mean frequency of repeat prescriptions per person			Mean change in frequency	
Type of prescription	One year before treatment	During treatment*	One year after treatment	Before/during	Before/after
Psychotropic	1.70 *(56.1)*	0.90 *(46.6)*	0.87 *(45.1)*	0.80 (p<0.01)	0.83 (p<0.02)
Physical	1.33 *(43.9)*	1.03 *(53.4)*	1.06 *(54.9)*	0.30 (NS)	0.27 (NS)
Mixed	0 *(0)*	0 *(0)*	0 *(0)*	0	0
Total	3.03 *(100)*	1.93 *(100)*	1.93 *(100)*	1.10 (p<0.001)	1.10 (p<0.001)

* During treatment data pro-rated to annual rates.

general practitioners, both in terms of time (their consultations) and consequent costs (repeat prescriptions). It is therefore suggested that close liaison with general practitioners in a multidisciplinary team is of great benefit to continuing health care.

It is important to add two cautionary notes. First, in order to make strong or definite conclusions about the effectiveness of this service, it would be necessary to define 'entry criteria' more rigorously and monitor a control group of patients who did not receive psychological help but with similar entry criteria. This would help to clarify whether the reductions noted above are in fact more than part of the natural history of consultation change. In addition, it would be more rigorous to base a clinical assessment on multi-rater observations. To demonstrate full effectiveness it would be necessary to show that apart from the clinical usefulness to patients, plus reduction in general practitioner consultation rates, the referrals to the more expensive hospital-based psychiatric services could be effectively reduced. This was beyond the scope of this present study but should be the basis for further research.

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Addendum

Mr Koch is now Senior Clinical Psychologist at the Academic Unit, Whitchurch Hospital, Cardiff.