

Clinical psychology in general practice: a controlled trial evaluation

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SUMMARY. A controlled trial study is described in which 50 consecutive potential referrals for psychological treatment from one general practice were randomly allocated either to behavioural treatment or no-treatment conditions. Treatment-group patients received treatment from a clinical psychologist working within the practice; the control-group patients continued to be managed by their general practitioner. The patients' use of NHS resources was assessed during the treatment period (or its equivalent for the control group) and at a follow-up comparison point, when the patients' subjective ratings of their progress were also obtained. Between referral and the end of treatment the treated group received significantly less psychotropic medication than the control group. This difference was not, however, maintained at the longer-term follow-up. No differences in general practice consultation rates, in the subjective ratings of psychological distress, in control orientation or life satisfaction were found between the two groups, but the level of patient satisfaction was high. Implications for the design of future studies and for psychological health care delivery systems are discussed.

Introduction

THE last decade has seen the gradual development of clinical psychology as a part of primary care. It is useful to look at this development in three stages. Initial suggestions that clinical psychology might be of value to patients and to their general practitioners came from authors such as Broadhurst (1972) and Kincey (1974). Their papers were followed by descriptive reports of work undertaken in the field (McAllister and Philip,

1975; Johnston, 1978; Clark, 1979). The third stage has involved some preliminary but non-experimental attempts at evaluation (Ives, 1979; Koch, 1979). Prior to the present study, however, there have been no reports of a controlled trial evaluation of intervention with clinical psychology. The Royal Commission on the NHS (1979) has highlighted the need for research in this area and the Trethowan Report (DHSS, 1977) has suggested "that pilot studies with built-in full evaluations should be mounted of referrals from general practitioners to NHS clinical psychologists" (para. 5.3.13). Furthermore, there is evidence to show that general practitioners welcome such a service (Davidson, 1977).

There are several reasons why detailed evaluations of clinical psychology in general practice are needed. Firstly, what impact does the provision of such a service have on the levels of morbidity or subjective distress of patients visiting their general practitioners? Secondly, what are the best levels and patterns of involvement by psychologists, given that several different roles have been advocated for them (Kincey, 1974; McPherson and Feldman, 1977; Kat, 1978; Hood, 1979)? Thirdly, what are the different criteria by which one might evaluate such a service? Fourthly, given the current and projected economic situation, what are the cost implications of different forms of intervention? The importance of all these questions is accentuated by the increasing awareness of the extent of psychological disorders presenting in general practice (Williams and Clare, 1979).

The present study was carried out with one practice within the Trafford Area Health Authority. Trafford is a single district AHA with a population of 229,000, situated to the west of the Manchester conurbation. The practice has a list size of approximately 10,000 drawn from a mixed residential area and comprises one part-time and three full-time principals. Discussions between the general practitioner and the clinical psychologist members of the Health Care Planning Team (Mental Illness) gave rise to a suggestion that the present evalua-

Table 1. Demographic and treatment data for final sample.

	Sex		Mean age (years)	Mean time to follow-up (weeks)	Mean treatment duration	
	M	F			Weeks	Sessions
Total sample (n=42)	12	30	37.1	31.6	—	—
Control group (n=19)	5	14	39.5	33.1	—	—
Treatment group (n=23)	7	16	35.1	30.5	16.3	7.7

Table 2. Use of NHS facilities between the date of actual or potential referral and date of actual or potential discharge from psychological treatment. (Percentages in brackets.)

	Treatment group (n=23)	Control group (n=19)	Chi-square analysis
Number of people receiving one or more prescriptions for psychotropic medication	9 (39)	14 (74)	p= <.05
Number of people receiving one or more prescriptions for other medication	14 (61)	8 (42)	N.S.
Total number of general practitioner consultations	79	53	N.S.
Total number of outpatient appointments and/or investigations	12	11	N.S.
Total number of hospital inpatient admissions. (Number of days in brackets)	0	2 (30)	—

tive study be undertaken. This initial contact led to subsequent discussions with the members of the practice about ways of carrying out such an evaluation. At that time the clinical psychological service to the Area was provided by one psychologist (L.E.). The other psychologist (J.K.) became involved because of his interest and experience in this clinical field and because the proposed study needed an independent assessor of clinical outcome. Prior to this study the practice in question had received no clinical psychological service. A controlled trial design was therefore considered acceptable both to the practice members and to the psychologists.

Methods

Study design

Fifty consecutive potential referrals to the clinical psychological service were allocated at random to a treatment group or to a control group. The latter received treatment from their general practitioner as considered appropriate. Details of the randomization procedure are available from the authors.

The sample

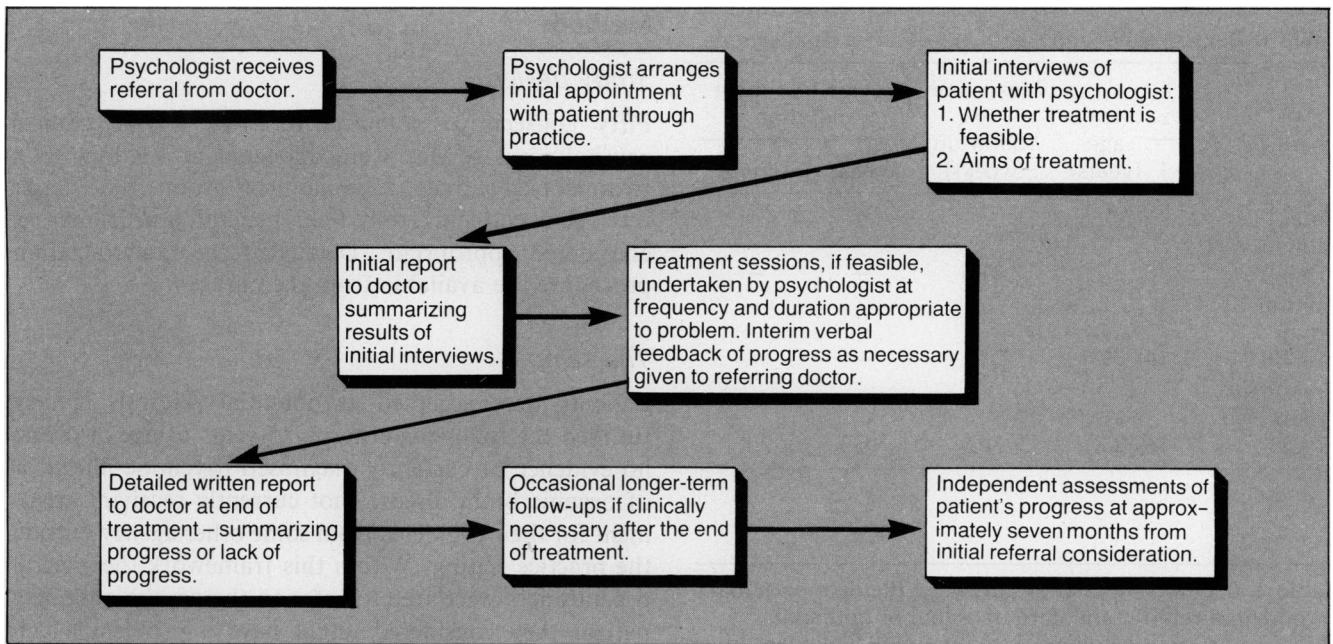
Patients were accepted as potential referrals if they fulfilled the following criteria: 15 years of age or older; no evidence of currently diagnosed psychotic illness or of organic brain disease; not currently receiving treatment for their problems from some other agency outside the practice setting. Within this framework the general practitioners were free to refer to the psychologist any patient they considered might have a problem which might be helped by clinical psychological intervention. They were given the framework of potential referrals suggested by Kincey (1974) and, as a further guide to referrals, a rather more detailed and specific framework illustrating problems of anxiety and stress and giving examples of potential behavioural interventions.

No detailed classification of patients' problems was attempted in this study. There were two reasons for this. Firstly, it was clear that many patients presented with more than one problem, either sequentially or concurrently. Secondly, it was considered that available diagnostic categories would not necessarily provide an appropriate way of predicting suitability for psychological intervention. Despite this it was apparent that difficulties in coping with anxiety of one sort or another characterized the greatest proportion of problems referred. The pattern of anxiety was frequently fairly generalized; specific phobic reactions were rare. Marital and sexual difficulties were on some occasions part of the presenting problems. More frequently, however, the anxiety was accompanied by a subjective report of depression, which in many cases was given by the general practitioner as one of the reasons for referral. Patients with a major depressive component to their problems or biological signs of depressive illness were not referred to the psychologist.

The study ran from January 1977 to the end of 1978. Demographic and treatment details of the sample are presented in Table 1.

Procedure

Control-group patients were treated in whatever ways the general practitioner considered appropriate to the pattern and course of their problems. Patients who had been assigned to the treatment group were offered help from the clinical psychologist attached to the practice. The Figure describes the course of action taken by the psychologist once a referral had been made. All refer-



Psychologist flow diagram.

als from the general practitioners were made by a letter outlining the relevant problems. The general practitioners were not advised to alter their management of patients in the treated group. In particular, no suggestion was made that they should alter their prescribing habits towards these patients.

Patients were treated as and when considered appropriate by the psychologist rather than for a defined, predetermined number of sessions. The decision to leave the system open in this way was influenced by the shortage of information available on which to estimate the number of sessions needed to work effectively in the primary care setting. It was considered likely that work at this level might involve appointments at more variable intervals than in hospital and that more flexibility might be necessary. Treatment was largely based upon a behavioural self-control model. Specific behavioural techniques were used wherever appropriate, following initial behavioural analysis of the problems. Emphasis was placed on the patient learning to cope more effectively with inappropriate emotional or behavioural reactions to different situations.

The patients from both the treatment and control groups were followed up, at approximately seven months from the date of actual or potential referral, by the psychologist who was not involved in their treatment (J.K.). These follow-ups were carried out through brief structured interviews which took place during the evening surgery at the practice. On a few occasions a home visit was necessary. Patients were sent a follow-up appointment date in a letter signed by their general practitioner. This letter stated that the views of a sample of patients from the practice were being sought concerning their health and their attitudes to the type of treatment which they received from the practice. Interviews lasted approximately 15 minutes. They comprised

a number of self-rating scales completed by the patient and, where applicable, a brief general discussion about the treatment given by the psychologist.

Objective criteria

Use of health service facilities was assessed from the data available in the practice case-note records. These comprised:

1. Number of prescriptions and types of medication prescribed.
2. Number of consultations with the general practitioner.
3. Number of hospital out-patient appointments and investigations.
4. Number, type and duration of hospital in-patient admissions.

Subjective criteria

Subjective criteria were assessed during the follow-up interviews. These comprised ratings by patients of:

1. Current level of emotional distress as measured by the DSSI/sAD (Bedford *et al.*, 1976).
2. Current level of general life satisfaction as measured by the Life Satisfaction Ladder Scale (Cantril, 1966).
3. Perceived level of personal control as measured by a personal control subscale of the Locus of Control scale (Gurin *et al.*, 1969).

Results

From the initial total of 50 potential referrals, objective data were obtained from case-notes on 42. Subjective data were obtained on 38 patients; of the remaining 12,

Table 3. Use of NHS facilities between date of actual or potential referral and long-term follow-up. (Percentages in brackets.)

	Treatment group (n = 23)	Control group (n = 19)	Chi-square analysis
Number of people receiving one or more prescriptions for psychotropic medication	15 (65)	14 (74)	N.S.
Number of prescriptions for other medication	20 (87)	12 (63)	N.S.
Total number of general practitioner consultations	129	98	N.S.
Total hospital outpatient appointments or investigations	19	25	N.S.
Total hospital inpatient admissions. (Number of days in brackets)	1 (2)	4 (60)	—

four had moved, four refused follow-up, two were double referrals, one was missed because of administrative delays and one was referred outside the trial. Table 1 shows the age and sex of the final sample and the clinical data for the treatment group.

Objective criteria

The use of health service facilities was assessed at two stages. The first stage was for the treatment period and showed the short-term effects of intervention; the second stage was at follow-up and aimed to assess long-term effects. For the treatment group the short-term measure was the use of health service facilities between the point of referral and the point of discharge from psychological treatment. As the control group had received no treatment from the psychologist, the short-term effects were assessed between the time of potential referral and the mean point of discharge for the treatment group. For the treatment group the long-term assessment was taken as the time between point of referral and point of follow-up interview. For the control group the long-term assessment was taken as the time between the point of potential referral and time of follow-up interview. The mean long-term follow-up was approximately seven months and, as can be seen from Table 1, the two groups did not differ significantly in this respect.

Table 2 presents the short-term findings for the two groups. The treatment group were receiving significantly fewer prescriptions for psychotropic drugs than the control group. The groups did not, however, differ in number of prescriptions for non-psychotropic medication. The number of general practitioner consultations

Table 4. Self-rating subjective data obtained at follow-up. (Percentages in brackets.)

	Treatment group (n = 22)	Control group (n = 16)	Significance level
DSSI/sAD scale. Number of patients categorized as not "personally ill"	10 (45)	8 (50)	N.S.
Mean "Life satisfaction" ladder score	5.59	6.69	N.S.
Mean "Personal Control" score	2.18	2.81	N.S.

did not differ significantly between the two groups. Although there was perhaps a tendency for the treatment group to receive less in the way of hospital outpatient or inpatient care than the control group, the low level of usage of these facilities did not permit formal statistical analysis.

Data for the long-term comparison are presented in Table 3. There were no significant differences between the two groups for this comparison. The short-term difference in relation to psychotropic medication was not maintained. Although the treatment-group patients spent considerably fewer days in hospital than patients in the control group, the number of admissions was again too small for formal analysis.

Subjective criteria

There were no significant differences between the two groups on the three subjective criteria assessed (Table 4), but among the treatment group there was a high level of satisfaction with services. Forty-five per cent said that seeing the psychologist "definitely helped a great deal", 40 per cent that it helped "to some extent", and only 15 per cent that it did not help at all. There was also a high correlation between these ratings and independent therapist ratings of patient satisfaction. For 13 out of 20 patients there was exact agreement, and on only one occasion was there a 2-point discrepancy.

Discussion

The major positive finding of the study is that psychological intervention resulted in the treated patients receiving significantly fewer prescriptions for psychotropic drugs during their period of treatment than the control group during an equivalent period. We feel that this is of some importance, particularly as there were no attempts made by the psychologist to influence the general practitioners' prescribing habits for either group of patients. It is not clear, therefore, whether the patients, feeling significantly less psychologically distressed, requested fewer prescriptions or whether the reduction was initiated by the doctors. It was disap-

pointing that this difference was not maintained at the longer-term assessment period. This failure suggests that a major emphasis of subsequent clinical research should be to devise ways of maintaining the short-term effect that this study has demonstrated. It was also disappointing that the subjective criteria showed no difference between groups at the follow-up interview. It is possible that had such an assessment taken place at the point of discharge from treatment, or its equivalent, differences would have been noted in the direction of less distress for the treated group. The nature of the experimental design, however, precluded such a comparison.

It is impossible to be certain what characteristics of the treatment resulted in the difference in prescription rates. Qualitative comments about the value of the treatment received from the psychologist were obtained from the treated patients at the end of the follow-up interview. Some patients referred specifically to the value of behavioural strategies, such as anxiety management training or social skills advice, while others referred to positive characteristics of the therapist or to the increased availability of time to discuss their problems. Whatever the explanation, it is encouraging to note that 85 per cent of the patients in the treatment group felt that their contact with the psychologist had either been of some help or had helped a great deal. It is also interesting that the therapist was able, using independent ratings, to predict accurately the consumer satisfaction of these patients.

The study may well have been biased against the possibility of obtaining positive results because all-comers were taken into the treatment group. The treatment group included several patients who, having been seen at least once for the initial behavioural assessment, were in the opinion of the psychologist unlikely to benefit from psychological intervention and were therefore not taken on for treatment. They were, however, included as part of the treatment group for the purposes of the data analysis in the study. In a situation where initial screening for suitability could be more detailed and be followed by random allocation into treatment or non-treatment groups, the effects of the behavioural treatment might be more pronounced.

An alternative strategy, deliberately not adopted here, would be to work with a very specific sub-group of patients defined as having a particular clinical problem. This seemed, from the authors' experience, rather unlike primary care referrals and was consequently not adopted as a strategy for this specific study. Patients in this study presented with a mixture of problems, largely comprising difficulties in coping with anxiety, tension and interpersonal problems. It seems likely that the problems referred were fairly similar to those which general practitioners in other practices might wish to refer to clinical psychologists. A further strategy might be to attempt to compare hospital-based treatment with treatment based in the community. This raises the issue

of the cost-effectiveness of different forms of treatment and the related problem of identifying the most appropriate treatment strategy and treatment setting for any given patient.

The current study took place within one practice with one therapist carrying out most of the treatment. The results, however, are encouraging enough to suggest that further studies should be undertaken to determine whether or not our findings can be replicated in different settings. The general problem of maintaining short-term effects, referred to above, deserves close attention. This difficulty is becoming increasingly recognized as an important clinical issue, as for example in the use of behavioural treatment approaches to weight control and giving up smoking. Research in these areas suggests that two approaches in particular may be fruitful. The first of these looks at patients' beliefs, attitudes and patterns of decision-making about their health- and illness-related behaviour and is exemplified by the work of Becker and Maiman (1975). The second examines the patterns and determinants of communication between patient and health care providers, in particular as in the work of Ley (1977). These two models both imply that future research should attempt to identify what more detailed and consistent information and advice about the long-term use of behavioural principles should be given to patients by their general practitioner and the clinical psychologist involved in their care. The major value of the present study is possibly that it directs attention to this issue.

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Smoking cheroots

A five-year and seven-year follow-up study on 5,249 Copenhagen men showed a relationship between smoking habits at the time of entry into the study and incidence of lethal and non-lethal myocardial infarction. With a relative risk of 4.2, heavy cheroot smokers had a higher risk of myocardial infarction than cigarette smokers (relative risk 2.1) and never-smokers. A multiple regression analysis indicates that cheroot smoking is an independent coronary risk factor.

Source: Gyntelberg, F., Pedersen, P. B., Lauridsen, L. *et al.* (1981). Smoking and risk of myocardial infarction in Copenhagen men aged 40-59 with special reference to cheroot smoking. *Lancet*, 1, 987-989.

Small babies and social class

The latest figures (1978) for perinatal mortality by birthweight and social class show that tiny babies, those under 1,500 g, born to mothers in social class 5 are almost twice as likely to die by the end of their first year of life as those in the same weight group whose mothers are in social class 1. The rates were 697 per 1,000 compared with 380 per 1,000.

Source: OPCS Monitor DH3 81/2, 30 June 1981. OPCS: London.

The

M&B May & Baker

Diagnostic Quiz

The answers to the November quiz are as follows:

1. With what disease is the above appearance usually associated?
Scarlet fever.
2. Describe three other physical signs usually associated with this disease.
a) **Sore throat with congestion and stippling of the palate, inflammation of the uvula and pillars of the fauces, and redness and congestion of the tonsils with flecks of exudate.**
b) **Strawberry tongue—white at first, then red.**
c) **Skin rash—punctate erythema commencing on the face, then spreading to the neck and chest, then over the trunk and on the limbs. Desquamation appears in the same sequence as the original rash towards the end of the first week.**
3. What is the cause?
***Streptococcus pyogenes* (β -haemolytic streptococcus, Lancefield's group A).**
4. What is the specific treatment?
Oral—phenoxymethylpenicillin (penicillin V) or, in case of hypersensitivity to penicillin, erythromycin.
Adult—250-500 mg qds for 10 days, child—125-250 mg qds for 10 days.
Injection (single, intramuscular, long acting)—procaine penicillin or benzathine penicillin.
Adult—1,200,000 units, child (less than 60 lb)—600,000 units.

The winner of a £100 British Airways travel voucher is Dr J. M. Brown of Cookridge, Leeds.

INNER CITIES

Occasional Paper 19

The problems of general medical practice in inner cities are becoming increasingly well known and some important reports have recently been published, particularly about general practice in London.

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Whereas many are critical of doctors working in these areas, Dr Bolden illustrates vividly some of the difficulties which practitioners encounter and makes a number of suggestions as to how they can be overcome.

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