PRACTICE OBSERVED

Practice Research

Controlled trial of psychiatric nurse therapists in primary care

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Abstract

In a randomised controlled clinical trial neurotic patients (mainly phobic and obsessive-compulsive) did significantly better up to one year follow up after receiving behavioural psychotherapy from a nurse therapist rather than routine treatment from a general practitioner. At the end of the year control patients who had not improved had crossover behavioural treatment from the nurse and then improved. Those who dropped out or refused therapy did not show worthwhile gains. Patients preferred being treated in the primary care setting rather than in hospital. Placing nurse therapists in primary care is not only viable but may save more health care resources than it consumes.

Introduction

The results of research from several countries and settings have shown that when the patients of general practitioners, physicians, and psychiatrists are managed by advanced clinical nurses they do at least as well as patients who are managed by other professionals.[1] Although psychiatric nurses play an increasingly salient clinical part, no controlled study has been made of the work of such nurses in primary care in the United Kingdom. Impressive controlled findings were reported for the follow up of discharged patients with neurosis by community psychiatric nurses who were based in a hospital,[2] and psychiatric nurse therapists have been monitored mainly in uncontrolled hospital settings.

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A controlled inquiry was therefore undertaken of behavioural psychotherapy given by nurse therapists in primary care. This is a preliminary report of the outcome. A full account will appear elsewhere. It is the first controlled study of psychiatric nurses caring for patients who attend the surgery of a general practitioner rather than a hospital.

Method

Three questions were asked in the study: (1) How effective is a nurse therapist with suitable patients? This was answered by assigning suitable patients with neurosis at random to behavioural treatment by a nurse therapist who worked in a general practice or to routine non-behavioural management by the general practitioner. The latter patients were controls and were offered crossover behavioural treatment from the nurse at the end of a year if they did not improve. (2) Is there a viable role for a nurse therapist as part of a primary care team? This was answered from informal data collected from the primary care team and the nurse therapist. (3) What proportion of patients who attend surgery has disorders suitable for behavioural treatment? This was answered by examining consecutive patients who attended and also by offering a general psychiatric consultation service in two practices. The answer to a fourth question about controlled cost-benefit analysis of the outcome has been reported in full.[3]

A full time nurse therapist gave the behavioural psychotherapy. Over the four years of the study (1978–82) there were three therapists working consecutively for 13, four, and 27 months respectively. A psychiatrist was the blind assessor.

Initially one health centre (five general practitioners) and one group practice (five general practitioners) participated in the study (totalling 26 000 patients). A further group of three general practitioners (3300 patients) was added six months later and another group of seven general practitioners (18 500 patients) at the end of year 1, making a total of 20 general practitioners with lists of 47 800 patients for years 2 and 3.

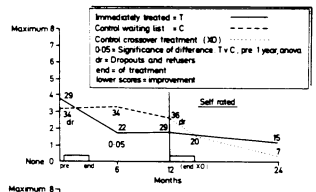
The general practitioners were briefed about criteria for the suitability of patients for behavioural psychotherapy, asked to refer suitable patients, and given a research referral form. Patients who were willing to participate were offered an assessment interview with the nurse therapist at the health centre or surgery, and a relative was also seen when possible.

ability (n=76; 0·93 degree of unsuitability (n=76; 0·95 method of management (n=136; 0·58 estimated time needed, and 0·66 estimated number of sessions needed for behavioural treatment (n=76. This high agreement between the nurse therapist and the psychiatrist about the diagnosis and the management of patients with behavioural disorders in primary care is closely similar to that in psychiatric outpatient departments.[4]

The ratings on entry to the trial and one year later were pooled to compute interrater reliability of patient, nurse, and psychiatrist. All interrater correlations were significant well beyond the 0·001 level, those for problem, target, and work ratings varying from 0·81 to 0·97, and ratings of social and private leisure from 0·70 to 0·86. Interrater reliability was thus satisfactory.

CLINICAL OUTCOME

Treatment: nurse v general practitioner—Figures 1 and 2 show the mean scores for problem and work ratings: the significance (anova) of the differences between the two groups in their improvement from entry into the trial to one year later appear above the horizontal axis of each graph. *At* and *Ac* in



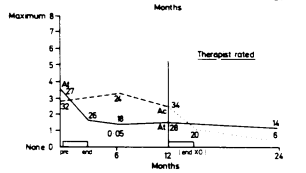


FIG 2—Outcome for all patients' work. *At*=assessor ratings for patients who were immediately treated; *Ac*=assessor ratings for the control patients.

the lower half of figure 2 indicate the blind psychiatrist's rating for the patients who were immediately treated and for the control groups respectively and *dr* denotes the rating for dropouts who could be followed up. The full details of the outcome are reported elsewhere.[3]

A year after entry into the trial the patients who had received behavioural psychotherapy from the nurse therapist had improved significantly more than the control patients who had remained on routine treatment from the general practitioner for a year. This superiority was found on main problem, fear questionnaire on global phobia and anxiety-depression, work adjustment, and social and private leisure ($p<0·001$–$<0·05$). All three raters agreed on the superiority of treatment by the nurse. Six months after entry into the trial the same pattern had emerged on the same variables.

Improvement within each group separately—Patients who received behavioural psychotherapy immediately from the nurse had a highly significant improvement (*t* tests) on all 17 variables rated at the end of treatment, and they maintained this improvement on all 22 variables rated at one year follow up. By contrast, during their year control patients improved significantly on only seven of 18 rated variables, and at a lower level of significance. Thereafter, control patients who had not improved were then offered behavioural crossover treatment by the nurse (seven of the 37 had by then improved so that they did not require treatment). By the completion of this treatment these patients improved significantly on 16 of 17 variables rated, mainly at the 0·001 level. On most variables the improvement of control patients during behavioural crossover treatment was significantly greater (*t* test) than that during their preceding year on the waiting list.

For the minority of patients who had dropped out or refused treatment who could be rated, the means are seen at the points *dr* in figure 1. These dropouts did not improve—the outcome at one year was like that of control patients.

Psychiatric morbidity—On the 12 item general health questionnaire 39% of consecutive attenders during a screening week scored three or more out of a possible total of 12, which is comparable with that in two other studies in which the questionnaire was used in primary care.[5,6] The general practitioners detected psychiatric problems ("conspicuous psychiatric morbidity"), in 15% of patients who consulted them during the same screening week, compared with the 14% found in two studies[6,7] but much lower than the 31% in another study.[8]

"Behavioural" morbidity proved difficult to estimate. The general practitioners varied greatly in their referral rates, and over the three years they referred 116 patients who were suitable for the trial. Some suitable cases were referred elsewhere, however, and it became evident that many patients were missed when a psychiatrist offered a psychiatric consultation service in two practices. In one practice 15% of patients seen for general psychiatric consultation were sufficiently handicapped to be suitable for systematic behavioural psychotherapy in the research trial, and a further 12% were less severe and needed behavioural counselling. In the second practice 19% had problems suitable for behavioural management. The density of referrals was sufficient to sustain a nurse therapist working with a population of about 25 000 patients registered with 10 general practitioners.

Discussion

In up to one year of follow up patients who were treated by nurses improved significantly more than did control patients. Control patients showed few gains during their year of routine care from the general practitioner but improved significantly when they subsequently had behavioural psychotherapy from the nurse. Those who refused and dropped out and could be followed up did not make useful gains. Most had phobic or obsessive-compulsive disorders. The results are in line with those of other controlled studies, suggesting the value of providing a behaviourally oriented clinical psychology service in a health centre.[9]

There was much additional evidence to support the value of psychiatric nurse therapists working at the general practitioner's surgery. Firstly, there was high agreement between the nurse and the psychiatrist concerning the diagnosis, the suitability for behavioural psychotherapy, and the management of referred patients. This replicated previous similar findings.[4] Little is gained by using a psychiatrist (or, presumably, a psychologist) rather than a nurse therapist to select patients for behavioural therapy in primary care or hospital.

Secondly, patients obviously preferred to be treated at home or in the surgery rather than in psychiatric outpatients departments, thus being seen nearer their homes, in familiar surroundings, and in the environment where their problems manifest, and avoiding the stigma of a "psychiatric" label.

Thirdly, two cost-benefit analyses, one controlled[3] and another uncontrolled,[4] suggested that, even disregarding "intangible" benefits, such as lessened fear and anxiety, the cost of employing a nurse was more than offset by tangible economic gains after treatment from the patients having less time off work and fewer expenses and lower use of health care resources. In the long term it may cost the community less to provide nurse therapists for such patients.

Fourthly, two unmeasured benefits emerged. Some patients who were excluded from the research trial because of its stringent criteria nevertheless seemed to gain from brief behavioural counselling given by the nurse at the assessment interview—for example, exposure homework instructions for phobics or sexual counselling for patients with sexual dysfunction. The general practitioners also sought the nurse's advice about general psychiatric patients as well as about behavioural psychotherapy, thus extending the nurse's role towards that of a community psychiatric nurse.

TREATMENT, SETTING, AND EVALUATION

The nurse therapist was based with the primary care team and carried out behavioural psychotherapy with suitable patients in the surgery, in the patient's home, or in other settings where the patient's problem would manifest. If the patient drew at random behavioural treatment this began immediately, and the nurse and patient made additional ratings at the end of treatment and six months after entering the trial. Behavioural treatment was tailored to the individual along the lines described elsewhere.[4] It included exposure for phobics (21 patients completed therapy) and obsessive-convulsives (4), self regulation for habit disorders (3), and sexual skills training for a patient with sexual dysfunction. Patients had a mean of six treatment sessions (mean of seven treatment hours), a therapeutic investment that was slightly less than that needed during a training programme for nurse therapists.

Patients who drew the control condition were asked to continue to deal with their difficulties as previously under the usual care of their general practitioner. The general practitioner was notified and asked to give the patient for the next year the routine treatment under the National Health Service that he or she would have given anyway had the nurse therapist not been available. Control patients were rerated at three and six months.

At the end of a year in the trial all patients were asked to attend the health centre or surgery for a routine follow up interview by the nurse and psychiatrist. At the start of the interview patients were reminded of the need for the psychiatrist to remain blind, and no mention was made of whether patients had received treatment in the preceding 12 months. After the one year ratings were completed by the patient, nurse, and psychiatrist, control patients who had not improved were offered behavioural treatment by the nurse.

MEASURES

(*a*) Problem and work/leisure ratings were made by patient, nurse, and psychiatrist on reliable standardised scales. (*b*) Problem related targets were rated only for patients treated by the nurse, by the patient and the nurse, again on reliable, standardised scales. (*c*) The fear questionnaire was self rated and provided a broader measure of phobias and anxiety-depression. It has been used extensively in previous studies.[3]

SELECTION OF PATIENTS

The selection criteria were the same as those used for patients with neurosis who were being assessed for behavioural psychotherapy in the outpatient department.[4] All patients except for one being seen at home had the initial 30 to 60 minute selection interview conducted by the nurse in the health centre or the surgery of the doctor who referred the patient. The psychiatrist observed this interview of the first 136 patients and asked clarifying questions if necessary. The nurse and psychiatrist then independently rated the patient and recorded their diagnoses, suitability for treatment, and recommendations, after which the psychiatrist withdrew. The patient completed his other ratings, the nurse made the random assignment and then told the patient of the decision about treatment. Patients were referred back to their general practitioners if unsuitable or if they refused to enter the trial.

Referrals—Of 254 patients who were referred, 34 failed to attend for interview, leaving 220 who were assessed. Of these 220, 104 were unsuitable for behavioural psychotherapy. Of the 116 suitable patients, 24 refused to enter the trial. The remaining 92 were randomly allocated, balanced for diagnosis and numbers, to the control waiting list and to immediate treatment conditions (46 in each). Three general practitioners referred proportionately more patients for the trial and for general psychiatric consultation.

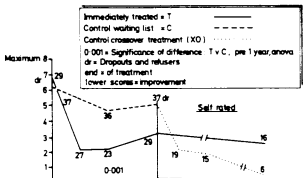
No shows—Thirty four (13%) out of 254 referrals failed to attend two appointments for the initial selection interview. This is less than the 18% "no show" rate of outpatients seen for the nurse therapist training course at the Maudsley.

Refusers—Twenty four (20%) of the 116 suitable patients refused to enter the trial, a refusal rate similar to that in the Maudsley nurse therapist training course. Refusers did not differ appreciably from acceptors for mean scores on the general health questionnaire, the behavioural questionnaire, or on behavioural handicap and problem severity.

Demographic features and duration of problem of referred patients—The mean age of the patients who were accepted into the trial was 35 years, the same as that of patients who were unsuitable for referral. Both groups had twice as many women as men—the usual sex ratio for patients with neurosis. The patients who were entered into the trial and the unsuitable patients did not differ appreciably in their mean scores for the four tests mentioned above.

The mean duration of the problem was seven years compared with 10 years in similar outpatients who received behavioural therapy at the Maudsley. Primary care patients thus presented earlier, though their problems were nevertheless chronic.

Allocation and fate of patients—Patients were randomly allocated to behavioural treatment to be given immediately by the nurse (46 patients) or to the control condition of routine support from the general practitioner for a year (46 patients). Of the former group of patients, 29 (63%) completed treatment, which lasted fewer than three months on average, and follow up to one year after entry into the trial. Of the control patients, 37 (80%) remained in the trial to its end. By the end of that year seven control patients had improved, and the remaining 30 were offered behavioural treatment from the nurse. Fewer control patients completed the behavioural treatment given in the crossover phase (46%) than did those who had it immediately (63%). Of the control patients, 20% dropped out during their year (or six months) in routine care, a further 30% refused subsequent crossover treatment, but only 7% dropped out after it began.



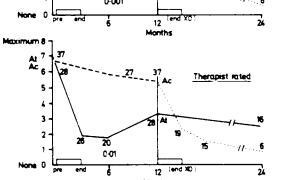


FIG 1—Outcome for all patients' main problem. *At*=assessor ratings for patients who were immediately treated; *Ac*=assessor ratings for the control patients.

Diagnostic categories—Sixty seven of the 92 patients who were randomly allocated were phobics: 37 agoraphobics (19 treated by the nurse, 18 control), 18 specific phobics, and 12 social phobics. The remaining patients included eight obsessive-compulsives, seven with sexual dysfunction, and 10 with habit disorder.

Completers v non-completers—dropped out before six sessions—The completers and the non-completers of the trial year had a similar duration of their problem and similar initial severity.

Results

The first 139 patients referred were asked to indicate where they would be happy to attend for treatment—at home, the general practitioner's surgery, or the outpatient department of a psychiatric hospital. Patients clearly preferred being seen at the general practitioner's surgery: 96% were agreeable to being treated in the general practitioner's surgery, 84% at home, but only 55% in outpatient departments.

At the selection interview the ratings of the nurse and the psychiatrist correlated highly ($p=0·001$: 0·79 primary diagnosis (n=136); 0·83 suitability for behavioural psychotherapy (n=136); 0·96 reason for unsuit-

Fifthly, the mean duration of a problem for primary care patients in this study was 30% less than that in a comparable cohort of hospital patients. Working in primary care shortens the chain of referral so that problems may be spotted and resolved earlier.

Sixthly, a higher proportion of patients who were suitable for behavioural psychotherapy was referred over successive years. General practitioners and other primary care professionals learnt from the nurse therapist how to spot suitable cases and also how to give behavioural advice. (During the study several patients with sexual dysfunction were referred to clinics where their chances of getting appropriate behavioural treatment were small.) Informed general practitioners may also be less likely to prescribe psychotropic medication that may be unnecessary and have undesirable side effects. Most of the general practitioners wanted the nurse therapist to continue in their practice after the study was over. The funding of such placements, however, is a problem.

Finally, employing nurse therapists in primary care might lead to fewer referrals to busy psychiatric hospitals, and with suitable training nurses may be able to help with behavioural medicine[10] into managing common problems in general practice such as hypertension, coronary heart disease, insomnia, and the rehabilitation of physical handicap.

There are two possible snags: one is a potentially higher dropout rate of patients in primary care than in outpatients departments—this needs further study; the other is the lower density of referrals. This requires the nurse therapist to work with at least two groups of general practitioners, which leads to more travelling than if the nurse worked in one hospital only and leaves less clinical time. This also occurs with community psychiatric nurses and other carers.[2] An attachment to two groups of general practitioners serving about 25 000 patients might be optimum.

Conclusion

The value of the work of advanced clinical nurses is underlined by recent controlled research into their effects on patients with neurosis either when community psychiatric nurses follow the patients up after discharge under the care of a psychiatric outpatient team,[2] or, as in this study, when nurse therapists take patients as direct referrals from general practitioners while working with the primary care team. Both studies indicate the worthwhile gains that may ensue to patients and to the community from psychiatric nurses assuming a greater role in the care of patients with neurosis.

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100 YEARS AGO

The Convocation of the University of London met on Tuesday last, and again passed a resolution urging upon the Senate the desirability of holding the Preliminary Scientific M.B. Examination twice in a year. The resolution was, as usual, carried by an overwhelming majority. In a house of nearly a hundred and fifty, there were but two dissentients. It might be taken for granted that the Senate would be ready, even eager, to give effect to the opinion thus emphatically expressed by a body which includes so many men fully qualified to represent every department of teaching. Unfortunately, past experience does not warrant such a hope. The same recommendation, made in former years, has been met by the Senate in an uncompromising spirit. That oligarchic body, confident of the infallibility of its educational theories, has not only rejected the advice of Convocation, but has even tightened the regulations which that body declared to be too tight. If this be a fair index of the temper of the Senate, what hope is there that it will listen to any recommendation which may be made by the special committee which Mr. Anstie, Q.C., obtained, to consider the proposals lately published by the Association for Promoting the Establishment of a Teaching University for London? We are fain to hope against hope that the Senate may at length be brought to recognise the strength and depth of the movement. Dr. Robert Barnes said that if the University could not find, under the changed conditions produced by the advance of the higher education, a *modus vivendi*, it would soon find it necessary to contrive a *modus morendi*. There are some signs that the University may not thus commit suicide: nine members of the Senate have joined Lord Reay's Committee, and Mr. Richard Holt Hutton, the only member of the Senate who spoke on Tuesday, though he committed a mistake in making light of the importance of the present movement, admitted that a closer connection between teaching and examination was very urgently needed. This is not a large admission; still, it is something to find even one member of that anomalous body recognising the necessity for reform. There are indications that other members of the Senate are beginning to perceive this obvious truth. Objections which are grounded merely on the imperfections of the draft scheme submitted last month to Lord Reay's Committee will not advance the question. The scheme was professedly purely tentative, and, so far from being designed to settle the question, was, in reality, intended to open it up, and afford a ground for discussion. Convocation, at least, would appear to be fully impressed with the importance of the crisis which has arisen. Mr. Anstie's motion was carried unanimously, and the committees appointed comprises many men of the first rank. It was, perhaps, unfortunate, that it was necessary to nominate the members of the committee on the spur of the moment; but, even with this disadvantage, it was not difficult to obtain a list of names which must command the respect, and, it may be hoped, also the attention of the senate. We shall not attempt to forecast the tenour of the report of this important Committee; but as that body contains several of the most active members of Lord Reay's Committee, the necessity for reform will certainly be fully discussed by it. The needs of the great medical school of London, and the general opinion of the medical profession, have long ago found expression, and now the demand of the teachers of all faculties has been distinctly formulated. This demand cannot be ignored. Will the University of London, which was for so many years proudly in the van of progress, make itself the champion of a movement, which is the result of the legitimate aspirations of the great teaching institutions of London, of its numerous colleges and medical schools, whose students are drawn from all parts of the kingdom? (*British Medical Journal* 1885;i:84.)