Community care of patients with schizophrenia: the role of the primary health care team

MICHAEL KING

IRWIN NAZARETH

SUMMARY. Schizophrenia is a severe, chronic mental disorder that usually begins in early adulthood. Recurrent relapse leading to long-term psychological and social disability means that patients may require intensive community support. Despite a recent fall in the overall numbers of patients consulting their general practitioner with mental disorders, presentations by those suffering from severe mental disorders have risen. This review encompasses the role of general practitioner in the management of schizophrenia, considering in turn drug and psychological therapies, family interventions, innovations in care, the effects of community care developments, and the liaison between primary health care and mental health professionals. There is a need for further research in the area of family-practice-based interventions involving general practitioners and the practice team.

Keywords: schizophrenia; psychosis; family practice; long-term mentally ill.

Introduction

SCHIZOPHRENIA is a disorder in which there is a fundamental and characteristic distortion of thinking and perception and an inappropriate range of emotions. Patients with schizophrenia present a challenge to general practice care. They are often young and have multiple psychological and physical disabilities. They may be reluctant to seek help, but without regular surveillance many of their difficulties go unnoticed. Despite a recent fall in the overall numbers of patients consulting their general practitioner (GP) with mental disorders, presentations by those suffering with severe mental disorders have risen.[1] Patients with schizophrenia may be regarded as unrewarding to manage in view of their handicaps and poor response to treatment. This review focuses on the management of schizophrenia where it is of direct relevance to general practice. Our personal database of studies, collected by regular inspection of 11 leading psychiatric and medical journals, was used. Further papers were accessed on MedLine; papers obtained using the keywords *schizophrenia, psychosis, family practice* and *long-term mentally ill* were inspected and hand searched if considered appropriate to this review.

Involvement of general practitioners

Up to one-quarter of patients with schizophrenia may be cared for only by the family doctor.[2] However, patients with disorganized lifestyles and more acute illnesses may not be registered with a general practice.[3,4] Until recently, little was known about the primary care management of schizophrenia and other serious mental illness. Studies published in the 1990s have addressed this issue, but there is little agreement on the population under scrutiny. Whereas some have used a broad classification that includes the chronic psychoses, neuroses and personality disorders,[5] others have studied more narrowly defined groups of patients with non-affective psychoses.[6] Studies have been handicapped by non-random selection of practices and incomplete identification of patients. For example, in a study of care given to patients with long-term mental illness,[5] the reported prevalence of psychotic disorders in 16 general practices in London and counties south of London was 1.7 per 1000. Although prevalence of psychotic illness varies according to the degree of urbanization, this figure is well below that of other estimates and may reflect the difficulty of accurately identifying all patients in a general practice population.[4,7]

Patients with severe mental illness consult more frequently than those with chronic physical disorders or the 'average' attender, but the care provided is much less structured.[5,8,9] Doctors may be bewildered by patients who present with vague difficulties and carry out little in the way of systematic, mental state assessments.[9] General practitioners prefer that clinical responsibility for patients remains with the psychiatrist, but are prepared to share care of such patients and take responsibility for physical problems.[10,11] Practice policies for the care of the chronic mentally ill are rarely well developed.

General principles of management

Physical care

There is evidence to suggest that the mortality of men and women with schizophrenia is twice that of the normal population.[12] The most likely causes of natural deaths are cardiovascular diseases. Sedentary lifestyles and excessive smoking, together with the cardiovascular effects of antipsychotic drugs, have been suggested as reasons for the raised mortality. General practitioners and practice nurses could play an important part in the primary and secondary prevention of ischaemic heart diseases (Table 1), but there has been no randomized controlled study to examine the effects of such an intervention.

Drug treatments

Antipsychotic drugs have their greatest effects on the so-called positive symptoms of schizophrenia. These are delusions, hallucinations and formal thought disorder.[13] Negative symptoms, such as poverty of speech and blunted affect, are less responsive to the classical antipsychotic drugs. Side-effects include: acute dystonia; anticholinergic effects, which account for the dry mouth, constipation and blurred vision; and alpha-adrenergic blockade, which may lead to vasodilatation, tachycardia and postural hypotension. Erectile dysfunction in men and decreased sexual drive in both men and women is caused by a combination of raised prolactin, secondary to dopamine blockade, and alpha-adrenergic inhibition. The illness itself also has an inhibitory effect on sexual interest. Substantial weight gain occurs in over one-third of patients.[14] The most serious, long-term, unwanted effect of antipsychotic drugs is tardive dyskinesia, a syndrome in

M King, professor, University Department of Psychiatry, Royal Free Hospital School of Medicine, London. I Nazareth, senior lecturer, Department of Primary Health Care, University College London Medical School, Whittington Hospital, London.
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which choreiform movements are observed, particularly in the head and neck area and almost always involving the tongue. It emerges slowly, and shows a positive correlation with the age of the patient and the dose and duration of therapy.[15]

Until recently, little difference in efficacy between the antipsychotic drugs could be demonstrated. The differences in side-effects often influenced the choice of drug. For example, a markedly sedative drug such as chlorpromazine may be less useful in the retarded patient with many negative symptoms than a more stimulating drug such as flupenthixol. Antipsychotic drugs are now regarded as typical and atypical according to the type of dopamine receptor blockade involved. Atypical antipsychotic drugs have effects on the central nervous system that distinguish them from other antipsychotic drugs.[16,17] This development has come about through a greater understanding of dopamine receptors and the advent of newer drugs. Clozapine, a drug whose development was abandoned in the 1970s because of the occasional occurrence of agranulocytosis, is now used for treatment of drug-resistant schizophrenia. The drug produces almost no extrapyramidal side-effects, and has enhanced efficacy for positive and negative symptoms.[18] It can only be prescribed by a psychiatrist on a named patient basis, and regular monitoring of the patient's white count must be continued indefinitely.[19] Samples are sent to the Clozaril Monitoring Service weekly for the first 18 weeks and fortnightly thereafter. Clozapine is effective in 50% of patients who have not responded to conventional drug treatment.[20]

It is well established that maintenance on antipsychotic drugs will significantly reduce the relapse rate of schizophrenia.[21] Long-term maintenance with oral antipsychotic drugs is as effective as depot preparations in preventing relapse,[22] and thus, intramuscular depot medication should only be considered if compliance is poor. Unfortunately, non-compliance is the single most important predictor of relapse and readmission of patients with schizophrenia.[23] Regular injections provide the opportunity for monitoring of patients, whether this is carried out in hospital, primary care or the community. There is no unequivocal moment at which drug maintenance can be stopped; rather a sensible choice involving patients' views must be made. Unfortunately, relapse may occur even after many years. A careful watch for warning signs is necessary by patients and their carers.

Efforts have been made to maintain patients on low-dose depot medication or intermittent treatment in order to avoid long-term adverse effects.[24] The results of these studies were disappointing, mainly because up to half of patients showed no clear prodromal symptoms of a relapse.

Good communication between the psychiatrist and general practitioner is essential, irrespective of the type of drug used. In one study of psychiatric outpatients' consumption of prescribed and non-prescribed medication, it was reported that 41 out of 58 drug prescriptions were omitted from the records of either psychiatrist or general practitioner.[25] Although disagreement largely concerned non-psychotropic drugs, important drug interactions might well have been missed.

Psychological interventions

The observation that relapse may occur even in patients who adhere to their drug treatment has led to a resurgence of interest in psychological therapies. A range of psychological techniques has been applied in an attempt to alleviate psychotic symptoms. These techniques include operant methods, distraction and cognitive behavioural interventions. Most have been reported in single case studies or uncontrolled trials.[26-28] This is an area of active research, and preliminary results suggest that some relief can be achieved from symptoms otherwise refractory to medication.[29-31]

At least one controlled trial of cognitive behavioural therapy in schizophrenia is under way in the UK. The therapy aims to improve knowledge about the illness, develop problem-solving skills, increase motivation and challenge delusional thoughts (T Sensky, personal communication).

The use of insight-oriented psychotherapy in the treatment of psychotic illness has produced largely negative results.[32] In what has become a classical study, Gunderson *et al*[33] made a controlled comparison of 'psychodynamic-expressive therapy' with supportive therapy aimed at helping patients to cope with problems of daily living. Treatments were carried out over 2 years while patients were maintained on medication. High drop-out rates occurred in both treatment groups, but supportive therapy appeared to be significantly more helpful than psychodynamic-expressive therapy, particularly on measures such as relapse and numbers of days in employment. Self-selection by patients who were able to maintain extended therapeutic contact may have been as important in producing a favourable outcome as the nature of the therapy itself.

The family

There are several important social factors that lead to relapse in patients with schizophrenia. These are stress, life events and the level of emotion (particularly hostility) expressed by families or carers of patients. Relatives who express high levels of emotion may adversely affect the patient by creating an unpredictable environment. A reduction in contact with relatives or education of relatives to enable them reduce their level of criticism may prevent relapse.[34] Interventions focusing on the burden imposed on the family caring for the patient have also been shown to prevent relapse and improve functioning.[35] However, working with the relatives alone may be as effective as family therapy that includes the patient.[36] Social intervention to reduce stress between relatives and patients in combination with antipsychotic drugs appears to be superior to antipsychotic drugs used alone.[37] This confirms the view that expressed emotion and medication are independently related to relapse.[38]

In a small controlled trial comparing a behavioural family intervention lasting 9 months with a short educational programme, significant decreases were observed in relapse and readmission rates in the behavioural group with gains maintained at 2 years' follow-up.[39] The intensity of the behavioural programme may well have explained the results obtained. Over 13 sessions, families were educated about the illness, and taught methods for coping and problem solving together with relaxation and distraction techniques. The educational programme consisted of only two sessions on schizophrenia and how to manage it in the home environment.

General practice may play a significant part in improving understanding of psychotic disorders and reducing strains on families caring for patients. To our knowledge, however, there has been only one published study of family interventions conducted in family practice. MacFarlane *et al*[40] compared a psychoeducation package for single family units with that delivered to families in groups. Out of 172 patients with schizophrenia recruited in six sites in the USA, those patients whose families took part in the group format had lower rates of relapse. This implies that inter-family support was the critical factor. Relatives of patients with schizophrenia regularly consult their doctor for help and advice. In a recent study of the management of schizophrenia in general practice, doctors taking part reported that consultations with the families or carers of patients was a significant part of their work with such patients.[7] There is a need for research into this important area of primary care of the severely mentally ill.

Social skills training

The negative symptoms of schizophrenia, such as withdrawal and apathy, may lead to considerable social isolation for patients. The positive symptoms, such as hallucinations and overactivity, may also lead to avoidance by others and increasing loneliness. Although patients have been taught how to improve their interaction with families, friends and work colleagues, such training appears to have limited impact. Benton and Schroder[41] conducted a meta-analysis of 23 studies in which social skills interventions were characterized by modelling, rehearsal and homework assignments, whereas factors closely allied to the treatment, such as self-rated assertiveness, improved, symptoms, general functioning and relapse rates, showed little change.

Prevention of suicide

A review of all available follow-up studies estimated that 10% of schizophrenics die by suicide.[42] Men are more likely to commit suicide and there is often a past history of depression.[43] However, suicides of patients with psychosis, However, represent only a small fraction of the overall rate of suicide in the community. Whether it is possible for primary care professionals to prevent suicide is controversial. The apparent reduction in suicide rates after an educational programme for general practitioners in Gotland (a small island community off the Swedish mainland), although encouraging, has been questioned. Numbers of suicides were small, and the rate was already declining before the educational intervention began and rose again within 2 years.[44] In Switzerland, the use of educational seminars in general practice resulted in a measurable improvement in knowledge, and a change in attitudes concerning suicide and suicide prevention.[45] However, no attempt was made to assess the impact of the training on local suicide rates. Suicide is a rare event for most GPs, and an evaluation of the impact on suicide rates of teaching GPs about suicide prevention would require enormous sample sizes of GPs and patients over long periods of time.[46] Suicide rates are closely associated with underlying socioeconomic conditions, and public health measures may be as important in prevention as an increase in effectiveness of services.[47] It is important for GPs to be aware of the known risk factors for suicide in patients with schizophrenia.[48,49] As yet, however, there is little evidence that they are able to have a major impact on reducing suicide in this group of patients.

Developments in community care and general practice

Community mental health teams

Psychiatrists, psychologists, community psychiatric nurses, social workers and other professionals work closely together in teams in the community (Table 2). In many areas, however, staffing levels have been inconsistent, depending on funding, local enthusiasm and the model of care promoted. Treatment is given in patients' homes, day hospitals, community mental health centres or general practice surgeries. Home visits enable assessment and treatment in the context of the patient's family. Intervention includes physical, pharmacological and psychotherapeutic treatments. Skills training, education and advocacy are provided to help patients and their families cope with daily life. Care is coordinated by a key worker and crisis intervention is offered wherever the patient lives, with brief hospital admission where it is unavoidable.

Community care is more difficult to organize than a centralized, hospital-based service, and requires different administrative skills and the development of a new role for the psychiatrist.[50] Although the consultant psychiatrist may not lead the team, he or she is still presumed to have overall clinical and legal responsibility for patient care. Without clear lines of management, conflict or indecision easily arise. Initiatives such as the Care Programme Approach were adopted to minimize these difficulties.[51] Specific guidelines for care of patients after discharge from hospital have been published.[52] Patients are discharged only when they are ready to leave hospital, any risk to themselves or other people is minimized, and integrated support and supervision is provided after discharge. There should be a systematic assessment of the health and social care needs of each patient and a care plan developed before discharge from hospital. A key worker must be allocated to keep in touch with the patient, monitor the agreed programme and take action if it is not delivered. General practitioners are not always aware that they can take the role of key worker. Patients with longer term, more severe difficulties and those who have a potential for dangerous or risk-taking behaviour are now placed on supervision registers. Such patients need to have assessments of their progress made at least every 6 months. The introduction of this register has received a mixed response from psychiatrists, who have voiced concerns about assessing the degree and duration of risk, the legal implications when things go wrong and the rights of the patient placed on such registers.[53] Additional procedures are now mandatory for patients covered by Section 117 of the 1983 Mental Health Act, which applies mainly to those who are discharged after compulsory admission under the Act. This includes a detailed assessment of risk to self and others, as well as agreed plans for treatment follow up and monitoring and audit.[52]

Does community care bring greater benefits to patients with schizophrenia and is it cost-effective? At least four controlled studies have demonstrated that care in the community leads to similar or better outcomes on a range of clinical and social measures and is more cost-effective than the traditional hospital-based care.[54-57] However, each of these programmes was a research study set up by enthusiasts. Whether community care leads to similar results in more mundane circumstances is uncertain. Community teams do not usually provide 24-h care and the family practitioner is often the only resource available out of hours. Although care in the community is generally cheaper than care in the hospital, when costs are detailed according to the diagnosis or level of impairment inpatient management may sometimes be cheaper for society in the longer term by producing greater overall benefit.[58] Innovative, non-experimental schemes continue to be set up in the community. In one north London initiative funded jointly by the National Schizophrenia Fellowship and a local health authority, mental health workers are being trained in cognitive behavioural skills and placed in general practices to work only with patients with severe mental illness (C Burford, personal communication).

Commissioning for services for the chronic mentally ill

The development of community mental health teams has not always led to closer working with general practice. Many general practitioners have been frustrated by bureaucratic referral processes and poor liaison. General practice fundholders and commissioning agencies are rapidly developing prototype contracts that define how primary care and mental health teams might best work together. Contracts can be adapted to meet local needs, but essentially, detail the nature of the service purchased, waiting times after referral and communication channels between them. There is a need for practice agreements between primary care and community mental health teams, which can be audited and reviewed. In some areas of the country, these are well developed but as yet underevaluated (C Alessi, personal communication).

Mental health professionals in primary care

Outreach clinics, in which hospital specialists provide consultation and treatment service in general practice rather than the hospital, have become common.[59] Some of the earliest clinics were developed in psychiatry[60,61] and were well received by general practitioners.[62] Psychologists, community psychiatric nurses and social workers have also formed primary care attachments, sometimes working independently of mental health teams.

The introduction of the purchaser–provider split and budget management by general practitioners has accelerated the development of outreach clinics in most specialties. Studies of a random sample of provider units across England and Wales have reported that half of all hospitals have at least one specialist providing an outreach clinic.[59] Outreach clinics in medicine and surgery are often initiated by fundholding general practitioners and are restricted to the base clinic. Clinics in non-fundholding practices are more often available to neighbouring practices. The perceived advantages of such clinics, according to the professionals, are decreased waiting times for appointments, less travel and greater communication with the primary care staff. However, little direct contact between family doctors and specialists occurs, as few general practitioners attend the clinics. The considerable time that specialists spend travelling and the reduction in their available time at the hospital are perceived as disadvantages.[59] It is clear that most general practices will never have direct contact with a psychiatrist as there are simply not enough of them.[63]

Despite the increase in the numbers of mental health professionals working in general practice, their efforts have seldom been assessed. Psychologists were the first to evaluate their work,[64-66] but only with regard to treatment of patients with non-psychotic disorders. Although the results have not always indicated clear superiority of a psychologist over routine treatment from the family doctor, clinical improvement may be more rapid, or patient satisfaction greater, in those patients treated by psychologists.[67]

Evaluation of psychiatrists working in primary care has been even less thorough. Strathdee *et al*[68] interviewed patients referred to a psychiatrist working in general practice and those referred to the adjacent psychiatric outpatient service. The severity and chronicity of disease suffered by patients seen in the two settings were similar, allaying fears that patients treated in general practice had milder disease.[69,70] Chronic schizophrenia and substance abuse were commonest in the general practice clinics, whereas personality and major mood disorders predominated in hospital referrals. One recent, controlled evaluation of a community mental health team based in general practice has again raised concern about milder disorders predominating in general practice clinics. The service led to a four-fold increase in new referrals and twice as many former patients re-entered care, but the greatest increase occurred for patients with relatively mild psychiatric disorders.[71] The service cost considerably more than a traditional hospital-based service and the general practitioners gained few skills in helping such patients.[72] Little change occurred in the number of admissions to the local psychiatric unit, usually because admissions occurred out of hours or were otherwise unavoidable.

Community psychiatric nurses usually work as part of a community mental health team but are often attached to specific general practices. There are estimated to be at least 4500 community psychiatric nurses in the UK.[73] One-third to a half of all general practices reported links with a community psychiatric nurse.[63,74] Concern has been expressed about their move from the care of the chronic mentally ill to the care of those with neurotic or reactive emotional problems.[73,75] Their psychotherapeutic training is usually less comprehensive than that undertaken by generic counsellors. The results of one controlled study indicate that they are not particularly effective in this role, although the study itself was hampered by methodological difficulties.[76] Even when community nurses commit themselves to intensive work with patients with chronic schizophrenia, there may be little additional benefit for patients. Nurses with limited training and poor resources can do little more than support this disabled group of patients.[77] However, the Mental Health Nursing Review has recently made very strong recommendations about the need for retraining of these professionals with a particular emphasis on the delivery of research-based clinical services.[78]

Patients' views of psychiatric outreach clinics are less enthusiastic than might be supposed. Many are resistant to change; those who attend hospital clinics and those who attend outreach clinics tend to prefer the *status quo*.[7]

Despite reservations, outreach work is likely to have profound effects on the work of primary care and mental health teams and lead to better coordination of care of patients. Outreach clinics were recommended in a joint paper published by the Colleges of General Practitioners and Psychiatrists as an important component of shared care of patients with mental health problems.[79]

Shared information cards

To our knowledge, there is only one published study of the use of shared information cards, which are carried by patients to all consultations. Although the cards were not popular with mental health professionals, they were welcomed by patients, who felt able to take a more active role in their care.[80] This idea has not been evaluated within a comprehensive community service in which both primary and secondary care professionals are willing to experiment. Shared information systems ease communication between service providers and give patients greater control over their care. The coding of personal information should allay concern about lack of confidentiality.

Case registers and computers in general practice

The value of disease registers for the management of chronic disorders in general practice has been well demonstrated. Case registers for the chronically mentally ill, which contain information on their mental illness, the extent of their contact with psychiatric services, and the degree of their psychological and social disability, need further evaluation. Although specific recommendations have been published for establishing a disease register for chronic mental illness,[81] patient advocacy groups may object to the implicit labelling involved. Computerization of general practice records in the UK is extensive; three-quarters of all practices were computerized in 1993.[82] When doctors are well motivated, the recording of psychotic illness on practice computers can be even more accurate than psychiatric registers.[6] Prescribing appears to be better recorded on the computer than on the written records. Computerization provides a rapid means of establishing accurate case registers for many conditions including chronic psychoses.

Good practice guidelines

Guidelines for the management of the long-term mentally ill in general practice have been produced, although some appear to be no more than a list of principles.[83] There is a need to develop and evaluate simple checklists that can be used by doctors and practice nurses to monitor physical and mental health status and medication used and its side-effects. One recent study has demonstrated that educating GPs to use structured assessment schedules results in their increased involvement in patients' psychiatric care, more treatment with antispsychotic drugs and increased referrals to community psychiatric nurses.[84]

Table 1. General principles of management of schizophrenia.

1 Physical care
2. Drug therapies
   Typical (phenothiazines)
   Atypical (clozapine)
3. Psychological treatments
   Patient oriented
     Behavioural/cognitive
     Psychodynamic
   Family interventions
     Work with only relatives
     Work with relatives and patient
   Social skills training
4. Social interventions
   Sheltered housing and employment
   Day centre care
   Health and Social Security benefits
5. Prevention of suicide

Checklists could be used in general practice health clinics. However, the Department of Health decision to fund health promotion clinics in general practice only for asthma and diabetes means that mental health clinics do not currently attract funding. Pilot work has also indicated that they may not be feasible; patients sometimes regard such clinics as stigmatizing and are not always able to keep regular appointments (I Nazareth, M King and S See Tai, unpublished report). However, much depends on the motivation of general practitioners to follow up non-attenders assiduously. It is possible that a fee for service may improve the function of mental health clinics. Opportunistic health checks when patients consult are an alternative that can be organized in general practices by use of computerized record systems. Education of patients and their relatives, monitoring of stress in families and prevention of disability, relapse and non-compliance with treatment can all be provided more systematically. However, opportunistic checks may disrupt the flow of the surgery unless appointment times are planned accordingly. There are also indications that GPs do not find regular, structured assessments feasible in routine surgery appointments.[84]

Even although their effectiveness remains unknown, the Department of Health, the NHS Executive and purchasers have shown considerable enthusiasm for clinical guidelines.[85] In whatever form they are delivered, clinical guidelines must have scientific validity, reproducibility and reliability, they must be derived by local or national consensus, be subjected to careful evaluation, take account of changes in medical knowledge and help to identify priority areas where further research is needed.[86-88] They should also inform patients about what constitutes quality care and influence purchasers when they draw up service contracts.[85] At the very least, practices might develop a list of aims for changing or improving their mental health service. One early step towards practice guidelines is the development of a practice protocol for referral.

Table 2. Developments in general practice and community management.

1 Community mental health teams
2. Commissioning for services for the chronic mentally ill
3. Outreach mental health clinics in general practice
4. Shared information cards
5. Case registers and computers in general practice
6. Development and evaluation of management guidelines

Conclusions

All general practitioners who practice in an urban area will have up to 12 patients with schizophrenia on their list. In districts where care of hostel patients is provided, this may be even higher. In some rural areas, however, the prevalence may be much lower. There will also be a number with other long-term psychotic disorders, including some with unremitting manic–depressive disorder. Although small in number, their psychological and social problems are great. Many doctors are quite rightly concerned with the vast bulk of psychiatric morbidity that confronts them in the form of neurotic and behavioural disorders. Nevertheless, there is much that family doctors can do to lighten the burden of suffering for patients with schizophrenia and their relatives.[89] Closer collaboration between primary care and mental health teams and agreed contracting of community health services will ensure that patients receive a better service.

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Address for correspondence

Professor M King, University Department of Psychiatry, Royal Free Hospital School of Medicine, Rowland Hill Street, London NE2 2QG.

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