



medicines **partnership**

A question of choice – compliance in medicine taking

supplementary chapter — compliance with medicine for psychotic conditions

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This chapter forms a supplement to the main Medicines Partnership report, *A question of choice: compliance in medicine taking*, by Sarah Carter, David Taylor and Ros Levenson, published in October 2003 (2nd edition). The report summarises the research evidence on medicine taking across 15 disease areas and patient groups. A copy of the full report is available at www.medicines-partnership.org

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Compliance with treatment for psychotic conditions

Patients' views about taking medicines for severe mental illness

Key points emerging from interviews with patients include:

- Service users feel that the medical model tends to prevail over other models of understanding and treating severe mental health problems; and that this often results in a professional preference for medications rather than other therapies and support systems.
- There are significant concerns about adverse effects and about taking medications for a long period.
- Some service users feel that they are listened to and supported when they have concerns about their medications; others do not.
- There are continuing concerns about information about medication, although there are also some recent examples of very good practice.
- Service users often wish to retain a degree of control and to exercise choices about how they take medications.

“*It depends who you talk to. The psychiatrist is all about medications, all the medical model. My care co-ordinator is kind of not anti-medication, but thinks it is peripheral to other lifestyle approaches... My CBT therapist is pragmatic and thinks it's OK to be on medications as a way of staying out of hospital and having the therapy. It is difficult to work out my own views among the views of all the others.* (Woman, 47, with schizophrenia and depression)

“*I realise there is something weird about my brain chemistry and I do need medication.* (Man, 57, with schizophrenia)

“*The medication helps a lot. I don't mind taking it...It's like a buffer to help with the voices. Even if it's sedative, it stops you doing anything stupid. You've just got to stick at it. It's not an instant-win. You have to do it long-term.* (Man, 24, with schizophrenia)

“*The drugs suppress you or slow your brain down, but they don't address mental illness which is caused by underlying issues and problems. These issues are never addressed by people who think drugs are a cure...Those who prescribe drugs need to change their outlook to holistic care and treatment, and not just drugs. Care plans are generally: take these drugs and you'll be all right. Talking therapies etc disappear off the agenda and drugs rule. Psychiatrists need to identify real problems and issues, like benefits and housing, and put them in the care plan.* (Woman, 41, with bipolar affective disorder)

“*You are not always taken seriously about side effects...Many think that if the side effects are not on the leaflet, they don't exist. Finding a doctor to yellow-card it is really hard. You feel the onus is on you to prove the side effects.* (Woman, 37, with bipolar affective disorder)

- “ For nine years I tried 18 different drugs and had toxic reactions to all of them. I could never get the professionals to understand and each time they just prescribed new drugs. I felt like I was going to die. Even with the three drugs that I could barely tolerate I felt so suppressed — I couldn’t eat and I was sleeping far too much. I was like a zombie. (Woman, 41, with bipolar affective disorder)
- “ Taking medications is a love/hate relationship. The more recognition of the setbacks, the more you can accept the benefits. You feel you have made the decision and have not been coerced. (Woman, 37, with bipolar affective disorder)
- “ I have not been given good information about side effects. I have 35 years of the mental health system and not once was I given adequate information. You have to find everything out for yourself. There’s an information blackout. (Man, 57, with schizophrenia)
- “ If you say something to any kind of doctor, they are not about to rock the boat if you are still taking the medication. My GP is excellent but my psychiatrist and I fight a lot. He thinks side effects are better than symptoms. I don’t always agree ... Having no symptoms is not the be-all and end-all of life. It is also important to be comfortable with one’s life. (Woman, 47, with schizophrenia and depression)
- “ It’s frustrating. Sometimes I go to a psychiatrist or GP and come away cross because there isn’t an answer long term. I am stuck with medication for the rest of my life. I have been through 27 different medications, and what I am on now is the best compromise. But I still feel I am thinking through fog. (Woman, 47, with schizophrenia and depression)
- “ I have never been listened to by psychiatrists, nurses, pharmacists etc. They pretend you haven’t spoken. Psychiatrists sometimes feel threatened as they know I know more than they do. Their whole work is diagnosis, then prescribe the drug. (Woman, 41, with bipolar affective disorder)
- “ Don’t get cross with people who stop taking their medications. The grass is always greener ... If I have not got symptoms, the side effects seem worse so I might want to stop. But then when I have symptoms I might prefer the side effects. It’s permanently a question of trying to find the middle ground. (Woman, 47, with schizophrenia and depression)

Research evidence

At any given time about one person in 250 will have a psychotic illness such as schizophrenia or bipolar affective disorder (Department of Health 1999). These potentially severe and enduring conditions are a major cause of disability, and are associated with a significantly raised risk of suicide. This review mainly describes medication compliance issues among people living with a diagnosis of schizophrenia, about which there is a significant body of relevant research. However, findings relating to compliance with prescribed medication among people with bipolar affective disorder are also discussed.

In the past 50 years there has been a major decline in the number of NHS beds occupied by patients with mental health problems — from around 150,000 (in England and Wales) in the mid 1950s to 30,000 today. This has been accompanied by a shift away from custodial to therapeutic and recovery-based models of care,

and a considerable growth in community-based services (Bell 2005). But despite such progress many individuals and families affected by mental illness still feel stigmatised and excluded from normal patterns of social interaction and personal opportunity.

For example, unemployment rates among people with severe mental illness are high. The disabilities and handicaps they experience largely relate to environmentally determined forms of disadvantage. Despite the biomedical realities underlying such conditions, the experience of 'having schizophrenia' (or any other psychotic disorder) is still very much a function of the way people labelled with these diagnoses are treated by the society around them.

The purpose of pharmaceutical and all other forms of psychiatric care — in addition to providing symptomatic relief as and when possible and necessary — is to enable people with mental health problems to gain greater control over and satisfaction with their lives. Hence, the issue of compliance with prescribed psychiatric medication regimens is important, and unusually sensitive. This is because of concerns about compulsion, and past patterns of care and treatment primarily intended to protect the public rather than individual patients' interests.

Effective psychotropic drug use can be of great value in helping people diagnosed as having psychoses to regain and/or maintain fulfilled lives. Yet coercive and demeaning approaches to giving drugs such as antipsychotics — which can force medication on individuals in the mistaken belief that its benefits will automatically outweigh its costs — may cause harm not only to those immediately involved, but indirectly to the wider community.

Schizophrenia

About one in every hundred people experience one or more episodes of schizophrenia or schizophreniform illness at some point in their lifetime. Symptoms are most likely to present first in late adolescence. According to the voluntary sector organisation Rethink, about a quarter of all those diagnosed as having schizophrenia recover within five years. Around two-thirds experience fluctuating symptoms over many years, and approximately 10%–15% experience severe long-term incapacity (Rethink 2005).

There is, however, evidence that outcomes in less industrialised nations may be significantly better than those recorded in countries such as the UK. In this country there seem to be significant variations in incidence rate and outcome between ethnic and other social groupings.

The drugs currently used to treat schizophrenia in part serve to block dopamine receptors in the cerebral cortex. Awareness of this led some observers to believe that schizophrenia results from overproduction of, or an undue sensitivity to, the neurotransmitter dopamine. But this view now appears too simplistic. The fundamental causes and mechanisms of schizophrenic illness remain unknown. Theories range from the possibility that genetically determined brain development abnormalities are involved, through to the idea that prenatal and/or postnatal infections have a significant role. It has also been suggested — but not proven — that using cannabis during adolescence may increase a person's risk of developing schizophrenia.

It is more widely accepted that psychological pressures related to emotionally charged criticism, prejudice and social rejection can play an important part in precipitating or maintaining schizophrenic illness. Some authorities believe these factors might ultimately be found to be of central significance in triggering the brain changes characteristic of the condition.

The symptoms of schizophrenia can be described as either *positive* or *negative*. Positive symptoms include hallucinations, illusions (in all sensory forms), delusions, disordered thinking and feelings of paranoia. Negative symptoms are less dramatic. But they tend to be more persistent, and can be highly disabling. Examples include becoming withdrawn, uninterested in social contact, and slow to think, move and talk.

Bipolar affective disorder

Bipolar affective disorder, or manic depression, is characterised by states of mind that fluctuate from manic episodes (*highs*) to depressive episodes (*lows*), with periods of normal mood in between. Individuals vary greatly in the rate at which their manic depression *cycles* between highs and lows.

As with schizophrenia the lifetime incidence of the disorder is about one in a hundred, and symptoms usually first appear in late adolescence or early adulthood. The fundamental causes of bipolar affective disorder are also unknown. But it is reasonable to assume that its occurrence is likely to be related to a combination of genetic factors and exposure to stressful life events and other environmental triggers.

Episodes of mania are typified by loss of inhibition, feelings of self-importance and being easily distracted. Episodes of depression are normally characterised by feelings of worthlessness, negativity, and loss of energy and interest in everyday activities. Some individuals with a bipolar affective disorder experience hallucinations and paranoia during psychotic episodes.

Antipsychotic medication

Antipsychotic medicines are appropriately prescribed to control the symptoms of schizophrenia and acute mania. The *typical antipsychotics* (such as chlorpromazine) were first introduced in the early 1950s. Although often effective in controlling florid psychotic symptoms such as hallucinations, they can also produce extra-pyramidal side effects. These include tremors, shaking, uncontrolled movements and restlessness. A more severe condition caused by these drugs, *tardive dyskinesia*, is characterised by involuntary movements of the tongue, mouth, face and jaw, which may not be reversible when treatment is stopped.

As well as blocking dopamine, many typical antipsychotics also block the action of the neurotransmitter acetylcholine. This can result in *anticholinergic* or *antimuscarinic* side effects such as a dry mouth, constipation, blurred vision and low blood pressure. Patients may be prescribed additional medicines to counteract these side effects, resulting in complex treatment regimens. Other side effects of typical antipsychotics include weight gain, altered libido, nausea and urinary retention, as well as a rare but potentially fatal complication known as *neuroleptic malignant*

syndrome, with symptoms including stiffening of the body and a high temperature. Anyone developing it needs urgent medical help.

Since the start of the 1990s a range of alternative *atypical* antipsychotic drugs has been increasingly widely prescribed. The first medicine in this class — still considered the most effective for a proportion of patients with difficult to treat symptoms — was clozapine. It was initially produced at the end of the 1950s, but its development was problematic. In about one in 100 users it can cause potentially fatal episodes of agranulocytosis, in which the formation of white blood cells is damaged. This leaves patients very vulnerable to infection. So clozapine use needs to be carefully monitored, and — as with all other forms of antipsychotic medication — it should not be initiated without the informed consent of those taking the drug, or that of their properly appointed representatives.

Other, more recently marketed, atypical antipsychotics include risperidone, quetiapine, zotapine and olanzapine. The mechanisms underlying their clinical actions appear to differ from those of the typical antipsychotics — they can be more effective in controlling negative symptoms, and there is evidence that they are less likely to cause some of the severe reactions associated with older treatments. However, they may still cause distressing side effects such as weight gain and sexual dysfunction, and may also be associated with additional problems.

Both typical and atypical antipsychotics can be delivered by depot injection. The advantage of this is that patients requiring long-term treatment need only a single injection every few weeks. But there are possible disadvantages — dosing flexibility may be lost, and service users may feel that control of their treatment has been removed from them. People with long-term mental health problems may sometimes fear that depot injections are used to enforce compliance.

Antipsychotic (as well as antidepressant) medications are today also prescribed for people with a bipolar disorder, depending on whether an individual is experiencing an acute high/manic or a low/depressed episode. However, the appropriate use of medicines containing lithium salts can often prevent such crises. These drugs were introduced in the late 1940s, but were not widely prescribed until the late 1960s.

The main concern with lithium therapy is that it is relatively easy to build up a potentially fatal toxic level in the blood. To avoid this there must be regular monitoring. Symptoms of lithium toxicity include fatigue, muscular weakness, poor co-ordination, drowsiness, tremor, diarrhoea and vomiting. Other adverse reactions associated with the therapeutic use of lithium can include weight gain, nausea, diarrhoea, tremor and blurred vision.

Rates of non-compliance

As in all other areas of pharmaceutical care, reported rates of non-compliance in severe mental illness vary greatly. One recent review of the literature calculated an average rate of compliance from ten studies to be 41% — so 59% of patients were found not to be compliant (Dolder, Lacro, Leckband and Jeste 2003). In another review one-third of patients with schizophrenia were classified as non-compliant and one-third as partially compliant (Oehl, Hummer and Fleischhacker 2000).

Previous work by the authors of the first study reviewed 39 articles published since 1980, and estimated the mean non-compliance rate in patients with schizophrenia

to be just over 40% (Lacro, Dunn, Dolder, Leckband and Jeste 2002). Similarly, a large-scale survey of views on mental health medicines reported that 44% of patients said that they had at some point stopped taking their medication without the support of their doctor (Hogman and Sandamas 2000). A study of people with bipolar affective disorder being treated on an outpatient basis found 27% to be partially compliant, with 12.5% having poor compliance (Colom, Vieta, Martinez-Aran, Reinares, Benabarre and Gasto 2000).

A recent more comprehensive review calculated non-compliance rates among patients with psychoses using data from 86 studies published worldwide from 1980 onwards. The mean rate of reported non-compliance was just over 25% (Nosé, Barbui and Tansella 2003). This study also found that the figure tended to decrease with increasing sample size. This may partly explain the higher proportion in other studies, although variances in any form of medicine taking can also be expected to vary between different social contexts and care settings.

Very few studies have specifically looked at compliance with recommended lithium therapy among bipolar affective disorder patients. A review published in the 1980s reported rates of between 9% and 57% (Cochran 1986). More recently, high rates of compliance have been reported (Macleod and Sharp 2001), although the authors acknowledged that this may have been because their study's participants were recruited from a lithium maintenance clinic, which compliant patients would be more likely to attend.

Despite evidence of differences between the side effect profiles of typical and atypical antipsychotic drugs, there are mixed results from studies comparing compliance in these two medication groups. Some studies have found that patients taking typical antipsychotics tend to experience more severe side effects, and also to receive less information about their illness, medicines and side effects (Hogman and Sandamas 2000); unsurprisingly, they were also more likely to be non-compliant than those receiving atypicals. However, this is not necessarily attributable entirely to the properties of the medicines involved; other aspects of therapeutic quality may also have been involved.

Similarly, a study of 288 (war) veteran patients in the US showed that those receiving atypical antipsychotics were slightly more compliant than those taking typical antipsychotics (Dolder, Lacro, Dunn and Jeste 2002). However, a further review reported that only three out of five studies analysed showed a trend towards greater compliance in patients prescribed atypical antipsychotics. Of these, two found only a partial association or nonsignificant trend (Lacro et al 2002). No association was found between drug type and compliance in a study of patients with bipolar affective disorder (Colom et al 2000).

Adverse health outcomes

The extent to which early and sustained use of antipsychotic medicines protects against (or might cause) long-term neurological and allied brain changes in people with schizophrenia is unknown. There is as yet no substantive evidence to this effect. However, there are clear associations between compliance with medication regimens, and factors such as relapse rates, (re) hospitalisation rates, and the incidence of serious unwanted events including suicides, assaults and (very rarely) murders. One study estimated that non-compliant patients have a six-month to

two-year risk of relapse — on average, 3.7 times higher than the risk for compliant patients (Fenton, Blyler and Heinssen 1997).

It should not be uncritically assumed that the benefits identified above always result directly from compliance with antipsychotic drug treatment. In some cases, compliance may be an indicator, rather than a cause, of psychological competency and/or better underlying mental health. But there is no doubt that, in many cases, a combination of medicine taking and other forms of care and support does protect individuals with schizophrenia or bipolar affective disorder against relapses, which may personally endanger and disadvantage them and their families.

Increasing rates of compliance with antipsychotic treatment may also have benefits at a wider societal level. People with schizophrenia and other forms of psychotic illness are still often stigmatised and perceived as ‘violent’ and ‘dangerous’; improved compliance could help reduce community concerns and hence the social exclusion experienced by these people. Such progress might also go hand-in-hand with more productive patterns of working between the NHS and agencies such as the police. This could in turn reduce the amount of stigmatising, negative media coverage of severe mental ill health.

Factors affecting compliance

Several factors are known to affecting compliance with antipsychotic medication; these include:

- ***Patient-related factors***
 - lack of insight into the illness
 - co-morbid alcohol or substance abuse
 - poor social functioning
 - youth
 - male sex
 - presence or severity of symptoms
- ***Environment-related factors***
 - lack of social support
 - stigma of illness
 - living alone
- ***Healthcare professional-related factors***
 - poor therapeutic relationship
- ***Treatment-related factors***
 - presence or severity of side effects
 - delayed onset of therapeutic effects
 - complex treatment regimen

Patient-related factors

Several analyses have revealed patient-related factors consistently linked with non-compliance. These include lack of insight into the illness, co-morbid alcohol or substance abuse, and poor social functioning (Gray, Wykes and Gournay 2002; Lacro et al 2002; Oehl et al 2000; Nosé et al 2003). Attitudes towards medication

may also affect compliance. Some reviews have found that — as might be expected — people with mental health problems who perceive that they derive positive direct or indirect benefits from their medication (such as allowing them to make new friends, or keeping them out of hospital) are likely to achieve better compliance (Gray et al 2002).

Mixed results have been found in the contexts of patients' age and sex; typically, young males are relatively poor at compliance (Lacro et al 2002; Nosé et al 2003).

The presence and severity of ongoing symptoms such as delusions or feelings of persecution are also often associated with poor compliance (Lacro et al 2002).

Similar results have been found specifically in bipolar patients. A recent review reported lack of insight, substance abuse and relative youth to be predictive of non-compliance (Vieta 2005).

Environment-related factors

Recent literature indicates that lack of social support is consistently associated with non-compliance (Oehl et al 2000; Nosé et al 2003). Related risk factors include experience of stigma, and living alone (Oehl et al 2000).

Factors relating to healthcare professionals and quality of care

The available literature suggests that the quality and amount of contact with healthcare professionals influences medication taking, with inpatients tending to be more compliant than outpatients (Oehl et al 2000). This may well be due to increased supervision. Additionally, a good therapeutic relationship between the patient and the clinician, in which the clinician is seen to be interested in the patient as a person, has been found to be a strong predictor of compliance (Lacro et al 2002; Nosé et al 2003; Oehl et al 2000).

This is fully consistent with the concept of **concordance** — the view that decisions about medicine taking should be based on an informed and voluntary agreement between the prescriber and the user, and that such decisions are likely to result in improved compliance rates.

Treatment-related factors

Compliance is affected by the presence and severity of side effects, especially weight gain, sexual problems, delusions, paranoia, and the disturbances which may occur during the first few hours of therapy (Oehl et al 2000; Gray et al 2002). Other factors include delayed onset of therapeutic effect, and treatment efficacy not meeting patients' expectations

Patients receiving depot injections have been found (virtually by definition) to be better compliers, and simple regimens are reportedly easier to comply with than complex ones (Oehl et al 2000). This too is logical, and consistent with the evidence available in all other areas of medicine taking.

In a review of literature specifically looking at compliance in patients with bipolar affective disorder, poor compliance was linked to high rates of hospitalisation and to the side effects of lithium (Vieta 2005).

Interventions to improve compliance

There has been much research on interventions designed to improve compliance rates in patients taking antipsychotic medications. A major systematic review and meta-analysis of worldwide studies using controlled trials has recently been published (Nosé, Barbui, Gray and Tansella 2003). It reported that improved clinical practices can significantly improve compliance rates. Its authors found the strongest evidence of efficacy in studies recruiting homogenous populations of patients with schizophrenia. Other research, including patients with less precise diagnoses and those with disorders said to show 'psychotic features', was less conclusive.

Interventions aimed at coherently assessing medication compliance, rather than simply increasing the frequency of outpatient or post-discharge appointments, were found to be more effective. Interventions with a shorter follow-up period (less than six months) also tended to be more successful, indicating that the benefits of compliance support tend to decrease over time.

Nosé et al found robust data on the impact of educational interventions and the value of specific service policies such as pre-discharge contacts between patients and community teams. They therefore suggested that education about medication problems and benefits should be frequently and routinely repeated; and patients should be offered pre-discharge contacts with community based team members, even if they received such support during previous admissions.

Dolder and colleagues (2003) undertook a similar investigation, reviewing 23 research studies published since 1980. Four were classified as being based on educational strategies; two on behavioural reinforcement; and five on affective strategies, seeking to promote enhanced compliance through emotional support and social relationships. The other twelve involved combinations of these approaches.

In 15 of the 23 studies, antipsychotic medication compliance improved in the intervention group. These included one of the education-based interventions, four of the affective strategy-based studies, both the behavioural ones, and most of the combination strategies. In general, the education-only strategies mainly showed secondary gains in knowledge about and insight into treatment; interventions using combinations of educational, behavioural and affective components resulted in decreased hospitalisation rates, reduced psychopathology scores and increased social functioning.

Interventions involving more additional sessions tended to be more successful. This may have been due to patients taking a relatively long time to form good relationships with therapists, and so to gain from the intervention. However, it is unclear from this work which is more important over time — repetition of key messages, or a better relationship with the therapist.

The authors concluded that the active components of combination interventions are difficult to isolate, and commented that the use of multiple strategies may sometimes reduce the impact of the most effective elements of single-strategy interventions. The overall body of literature on compliance in medicine, and effective communication in healthcare more widely, generally supports combination approaches, involving multiple routes and frequent repetition of messages.

Psycho-education interventions aim to encourage compliance by informing patients about the nature of their (mental) illness and how it might impair rational judgements, and about the value of accepting ongoing treatments. They also try to increase insight and provide coping skills. In the context of bipolar affective disorder, research indicates that such programmes can enable patients to identify early signs of relapse, lengthen time to first manic relapse, improve occupational and social functioning, decrease the severity of depressive symptoms, and increase compliance (Vieta 2005).

Compliance therapy

One approach to improving compliance with recommended treatments for psychotic illnesses is known as *compliance therapy*. It was developed by Kemp et al (1996), with financial support from a major pharmaceutical company and other sources, and is mainly based on motivational interviewing and cognitive-behavioural techniques.

Compliance therapy involves three phases:

- During the first phase, patients review their illness history and their previous experience of medicines. This allows them to acknowledge their problems and concerns, and to explore and clarify their perception of these problems. It also uncovers potential barriers to treatment compliance. Talking about psychotic symptoms helps to ‘normalise’ them, reducing feelings of stigmatisation. Patients are also encouraged to think of times when treatment was useful, and to emphasise the benefits of being in control of treatment decisions.
- In the second phase the patient and therapist discuss patients’ reluctance to take medication, covering topics such as side effects and illness denial. The therapist should also clarify and correct misconceptions about treatment, and encourage consideration of the pros and cons.
- In the final phase, the therapist aims to reduce feelings of stigmatisation and alienation by highlighting the prevalence of mental illness and making comparisons with chronic physical illnesses. The concept of maintenance treatment is introduced, with emphasis on the importance of being stable and staying well in order to achieve certain life goals. By discussing the patient’s symptoms, the therapist aims to help them recognise signs of relapse.

The available research indicates that illness insight and medication compliance rates can be considerably improved by compliance therapy, and that its effects last for at least six months (Kemp, Hayward, Applewhaite, Everitt and David 1996). But it is unclear to what extent benefits endure for longer periods. One randomised controlled trial of the long-term effect of compliance therapy found that, at 12 months, it was no more effective than non-specific counselling in promoting compliance and stimulating positive attitudes towards treatment, insight, better levels of functioning or quality of life (O’Donnell, Donohoe, Sharkey et al 2003).

This relatively recent study involved only a small number of participants (26 in the intervention group and 24 in control group at the 12-month follow up) and recruited only those with a clear diagnosis of schizophrenia. Previous research showing the positive effects of compliance therapy, including that of Kemp et al, involved people with a more heterogeneous set of diagnoses. This might partly

explain variations in the reported findings, although such a conclusion appears to conflict with the findings of wider reviews. It is more likely that the effects of all forms of compliance support decrease over time (Nosé et al 2003), so careful attention needs to be paid to providing refresher and/or maintenance courses in community settings.

Compliance therapy may also be useful in encouraging compliance with lithium-based medication programmes by people with bipolar affective disorder. An exploratory study was conducted with eight participants by Scott and Tacchi (2002), who reported significantly improved attitudes towards lithium and compliance, as measured by both self-report and serum plasma levels. Such findings are encouraging, and deserve further validation among a larger sample.

The value of training health professionals in the delivery of compliance therapy has also been researched. Junior psychiatrists reported finding it useful and relevant to their work. It helped inform their awareness of the causes of non-compliance, such as the fear of stigma and desire for personal autonomy; and its personal costs in terms of phenomena such as decreased social functioning (Surguladze, Timms and David 2002). Training community mental health nurses in the use of compliance therapy has also been found to be valuable, and linked to significant improvements in their patients' psychopathology, attitudes towards medication and compliance rates (Gray, Wykes, Edmonds, Leese and Gournay, 2004).

Overall, compliance therapy appears promising. However, the exclusion of some patients in the available studies restricts the generalisability of study results. Those classified as 'non-English speaking' were often excluded from the intervention studies, so it's unclear how these patients would respond to the therapy. It may be especially important that these patients are counselled about their medication if language is a barrier to the understanding of their treatment regimen. Similarly, some studies excluded patients with co-morbid substance or alcohol abuse. As they are more likely to be non-compliant, it would be useful to know whether compliance therapy would be successful in these patients.

Discussion

Until relatively recently, it was commonly assumed that people with psychotic disorders could not gain insight into the nature of their illnesses, or take responsibility for controlling their own treatment. But just as the residential location of people with severe mental health difficulties has increasingly moved out of large confining hospitals into community-based settings, there is now a growing awareness that it is often possible for people who have experienced psychoses to be positively involved in their treatment, and to recover satisfactory lives.

Yet many challenges remain to be overcome, not least in relation to the variable efficacy and often unpleasant side effects of the medicines currently available. Present areas of concern include:

- The special needs of black and other ethnic community members, who are often relatively unwilling to seek professional help for mental health problems and so may remain untreated until severe symptoms become manifest. They may also be exposed to perceived and actual prejudice, and are more likely than other

population groups to suffer enforced rather than voluntarily agreed patterns of mental health treatment (Department of Health 2005).

- The recorded growth in illicit drug and alcohol misuse in modern Britain, and the special difficulties this is linked with in people with mental illnesses.
- The ongoing political debate about reforming mental health legislation, with ignorance and complex sectional conflicts making it difficult to achieve a fair and workable balance between the protection of public safety and public service efficiency, and the provision of high quality personal care, choice and human rights protection for people who develop severe mental health problems (Richardson 2005).

However, such issues should not detract from awareness of advances that have already been achieved in supporting appropriate medicine taking, or in providing further opportunities to help ensure that people suffering mental health crises are provided with appropriate pharmaceutical care, alongside other effective support. For example, advanced treatment directives are increasingly seen as an effective resource for enabling people with psychotic disorders to decide while they are well how they should be treated should they suffer a relapse. Linked with other advances in compliance support and concordance-based professional practice, such strategies have a substantial potential further to improve the effective, beneficial use of antipsychotic medicines in the 21st century.

Summary

Reported compliance rates with antipsychotic medicine regimens vary considerably. The available evidence indicates that around 40% of patients with severe mental illness do not take their medicines as prescribed.

The causes of non-compliance in antipsychotic medicine taking are — as in all other areas of pharmaceutical care — multifactorial, and complex. Interventions such as compliance therapy have been shown to be successful in improving medicine taking by people with diagnoses such as schizophrenia and bipolar affective disorder. They typically involve a combination of educational, cognitive and behavioural modification strategies.

But different sub-groups of antipsychotic medicine users may benefit from different components of such interventions to differing degrees, and the effects may in many cases be relatively short lived. These observations can partly be taken to highlight the need for sustained and well co-ordinated personal support in medicine taking and related issues for people with long-term mental health problems while they are well and living in the community.



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