# Schizophrenia?

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# SCHIZOPHRENIA

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# Office of Health Economics

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To collect data from other countries.
To publish results, data and conclusions relevant to the above.

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# Introduction

More people of working age who are in hospital or disabled in the community suffer from schizophrenic illness than any other potentially handicapping condition. In the UK approaching 150,000 people are affected at any one time. The annual cost of their health and social care alone is some £200 million.

Nevertheless, despite the importance of the conditions it encompasses the diagnosis schizophrenia remains in some respects poorly defined and public knowledge of and attitudes towards such psychiatric disturbances often appear ill informed. On the one hand, for instance, schizophrenia is still frequently confused with the rare (hysterical) 'Jekyll and Hyde' dual personality syndrome. On the other some people deny categorically the existence of schizophrenia as a disease, seeing it only as a socially defined or induced phenomenon.

To understand modern thinking about schizophrenia more fully it is helpful to look back to the late nineteenth century when the pioneer classifier of mental distress Emil Kraepelin first used the term dementia praecox to describe a group of related states he had observed in clinical practice. Their onset was early in adult life and they frequently involved hallucinations and delusions, although Kraepelin from the start argued that the basis of the conditions that he included under the umbrella of 'dementia praecox' was a disturbance of feeling rather than one of intellect. He also believed initially that they were characterised by a process of inevitable, long-term mental deterioration.

Subsequently Kraepelin himself and the Swiss psychiatrist Eugene Bleuler questioned this latter view. In 1911 Bleuler[1] used the word schizophrenia (split mind) in an attempt to describe more appropriately the essential elements of the psychiatric condition observed in many non demented, non manic-depressive individuals regarded as suffering from a psychotic illness.

In fact Bleuler's schizophrenia was a rather more inclusive concept than that of 'dementia praecox' in that it incorporated paraphrenic and paranoid conditions.[2] He saw it as a process of

1 Assisted in his work by students like Carl Jung who at the beginning of the twentieth century conducted a novel investigation into the thought processes of people diagnosed as having dementia praecox.

2 Kraepelin merged the pre-existing concepts of démence précoce, hebephrenia and catatonia. The latter is today rarely observed in the classic form in which patients show alternating periods of extreme excitement and then severely diminished movement. Hebephrenia, like paranoia is much more common. Both normally have insidious onset, with paranoia tending to affect older patients who develop grandiose ideas with varying degrees of persecutory delusion. Continental psychiatrists tend less than British ones to believe this last to be an essential aspect of paranoia.

personality disintegration (splitting) stemming from distortions and disorders in an individual's thinking and perceptions. Many modern commentators would accept this general view, although most see the breakdown of interactional skills and thus of social identity in a rather more sophisticated manner than did the early twentieth century theorists. However, it may be argued that by asserting that all schizophrenias are based on two essential elements – 'flatness' of affect (feeling and emotion) and loosening of association – Bleuler created a diagnostic category so vague that, if incautiously applied, it is of no more value than was the term 'fever' in the eighteenth and nineteenth centuries.

Much recent research has been aimed at firmly establishing the circumstances in which the label 'schizophrenia' may be legitimately applied to people displaying an unusual mental state. In general it may be said that in Britain today psychiatrists tend to stand more in the tradition of Kraepelin, using schizophrenia relatively narrowly to refer to a given set of observed 'signs and symptoms'. By contrast in countries such as the United States there is rather more sympathy with the broader, more theoretically based approach of Bleuler.

Another central theme of modern investigations has been to ascertain the degree to which social and other environmental factors external to the individual play a role in the genesis and course of schizophrenic illness. Although Scandinavian psychiatry has a relatively long tradition of accepting that nearly all forms of mental distress have causally significant reactive aspects this understanding has only become fully established in Britain in the last two decades or so.

This paper describes findings in these and other related areas and also examines developments in the system of care and treatment for people affected by schizophrenia. These include topics like the impact of modern psychotropic medicines in the field of mental health and the programme of 'running down' the traditional mental hospital system commenced at the beginning of the 1960s.

It should be stressed that many questions relating to the nature of schizophrenic conditions and the outcome of various forms of treatment are still unresolved. For instance, no biochemical factor basic to any form of schizophrenia has yet been proven to exist. The long-term value of some modern forms of psychiatric rehabilitation is unknown. And there is even a dearth of information about how the overall population of people affected by schizophrenia is faring within the present structure of health, social and allied services.

In the face of such fundamental uncertainties it is not possible to define clearly what would constitute a future ideal pattern of

support and treatment or to pin point accurately how current plans and levels of financial investment depart from those necessary to achieve such services. Rather the objective of this report is to present an overview of schizophrenia which highlights key topics but does not attempt to quantify precisely the costs, risks and benefits of the care approaches it outlines.

# The nature of schizophrenia

The confusion and conflict which can exist regarding the use of psychiatric diagnoses was illustrated by the mid 1970s film *One Flew Over the Cuckoo's Nest*. This portrayed the admission by order of court of a sane, albeit anarchic, individual to an American County Mental Hospital during the early 1950s. There 'treatment' by electro-convulsive therapy and brain surgery inflicted upon him as punishment for failing to comply with the norms imposed by the doctors and nurses eventually resulted in the destruction of his mental abilities and his merciful death at the hands of another patient.

That account was in some respects fictional and dramatised. However, the work of researchers like Scheff (1966) has indicated that many people in the past incarcerated in such institutions were not psychiatrically ill in todays terms. Some similar concerns are of more recent origin. Rosenhan (1973) described how eight volunteers presented themselves at American psychiatric hospitals complaining of hearing voices saying single words like 'hollow' or 'thud'. All were diagnosed schizophrenic even though the rest of their behaviour was entirely usual. Reports such as these, together with assertions that in the USSR 'schizophrenia' is a term too easily applied to individuals who express unwelcome political views, have led a few commentators to doubt whether 'schizophrenia' exists at all other than as a label used to identify and subsequently to denigrate or control socially deviant individuals. [3]

However, such views, based largely on retrospective analysis, could prove misleading as regards the situation of the great majority of people diagnosed as suffering from schizophrenic illness in Britain today. For many the key problem may lie in obtaining adequate recognition of the extent of their distress and mental disability, not in breaking loose from the restrictions imposed by overprotective patterns of care and support. To build

3 The American psychiatrist Thomas Szasz is perhaps the best-known exponent of this approach. He believes mental illness to be a myth created by those who provide its treatment and that everyone, however strange or bizarre their behaviour, should be regarded as equally subject to normal social controls like those applied through the judicial/prison system (Szasz 1962).

up an adequate picture of the nature of the suffering and limitations schizophrenia can impose it is necessary to examine recent investigations of the condition in further detail.

## Onset, acute distress and long-term impairment

Schizophrenic conditions usually become apparent early in life, the highest incidence rates being amongst men in their twenties. In females rates are a little lower and the average onset age rather later, particularly in the case of paranoid schizophrenia. In connection with the latter a recent study quoted by Hamilton (1978) found a median onset age of 37 years in women (29 in males). This finding confirms similar results published by Fish (1962). One possible explanation of this positive age skew towards paranoid states is that the effects of underlying schizophrenic disturbance on a person who has had time to develop to an adult personality may be less dramatically destructive than is often so in the case of less mature individuals. Instead of the very marked breakdown of normal social skills and thought processes often seen in the young, older persons tend to develop more coherent delusions and less generalised disabilities.

This hypothesis is complemented by the suggestion that complex delusions may be seen as logical attempts to understand bizarre sensory experiences which cannot be explained in everyday terms. The fact that deafness is related to a statistically highly significant extent with paranoid schizophrenia (Kay and Roth 1961) is evidence in favour of the view that sensory deprivation and or distortion may play a direct role in the genesis of delusions.

The rate of onset of a schizophrenic state is a factor believed by many authorities to be an indicator of the long-term prognosis although this remains largely unpredictable (Sartorius *et al* 1977). In general it seems that a swift decline into the acute illness, particularly if this is precipitated by some special external stress and is associated with affective symptoms like depression, is the pattern most commonly linked with full recovery.[4] Insidious onset in individuals with a marked flatness of affect is the least favourable pattern.

In modern psychiatry the diagnosis of schizophrenia is made in part on the grounds of whether or not what Schneider (1959)

4 Transient distress of this type is sometimes termed schizophreniform illness (Etinger *et al* 1958). Conditions involving a combination of schizophrenic and affective symptoms may be referred to as schizoaffective states. It is in the latter that, despite the overall relatively good prognosis, that the risk of suicide is greatest. Cohen *et al* (1972) in a study of twins found a suicide rate of almost a third in patients with this diagnosis, ten times that of other schizophrenia sufferers.

termed first rank symptoms are present. Described in Table 1 these include hearing voices discussing oneself in the third person and feelings that one's thoughts are being listened into by other people or have been placed in one's head by others. Delusions characteristic of schizophrenia often commence with a sense of revelation, the subject believing that he or she has suddenly understood a previously hidden truth.

In practice, however, diagnosis does not depend exclusively on observation of the above symptoms. Indeed, Schneider himself never suggested that it should. Other factors often taken into account include the subjects' pre-morbid nature – a withdrawn, 'shut in' personality is commonly believed to be associated with the condition – and his or her capacity to form a rapport with other people. The feeling on the part of the psychiatrist that 'the person is no longer there', that somehow the individual personality of the sufferer is beyond contact with the outside world, is often central to this approach to diagnosis. It is inevitably subject to considerable inter-therapist variation and there may even today be disputes as to whether patients who never exhibit first rank symptoms but nevertheless display allied or 'borderline' psychiatric states should or should not be labelled 'schizophrenic'. In recent years awareness of the social dangers inherent in such a

**Table 1** *First-rank symptoms of schizophrenia*

**Passivity experiences:**
Thoughts, emotions, impulses, or actions experienced by the individual as under external, alien control; these include the so-called 'made' experiences which the individual believes to be imposed upon him or in which his will seems taken away. Certain disturbances of thought control are included: thought insertion (the experience of thoughts being inserted into one's mind from outside and under external influence); thought withdrawal (the experience of thoughts being taken out of one's mind under external control); thought broadcasting (the experience of one's thoughts being broadcast to or otherwise made known to others).

**Auditory hallucinations in the third person:**
Hallucinatory voices heard discussing one's thoughts or behaviour as they occur (voices may maintain a 'running commentary'); heard discussing or arguing about one in the third person (ie, referring to one as 'he' or by name) or heard repeating one's thoughts out loud or anticipating one's thoughts. To be 'true' hallucinations, the hallucinated voices must be experienced by the person as alien and under the influence of some external source.

**Primary delusions:**
Delusions in which the primary meaning arises from perceptions which in themselves are normal. Also known as 'autochthonous' delusions, these cannot be understood in terms of preceding morbid experiences.

*Source* After Clare 1976.

step may account for declines in the numbers of people so diagnosed in this country.

Following an acute schizophrenic episode a proportion of sufferers, in the order of a third to a half, recover fully in social terms. Others may have a number of acute relapses (often related to the level of emotional stimulation a subject is exposed to) before recovering with perhaps partial impairments in, say, their capacity to form relationships or to concentrate on intellectual activities. Others, between twenty or thirty per cent of those experiencing acute symptoms, will go on to suffer prolonged, severe chronic illness with pronounced disabilities (Bleuler 1972, Sartorius *et al* 1977).

In such cases the symptoms suffered, usually referred to as negative schizophrenic defects, are quite different from the florid ones seen in the acute illness. They involve marked poverty of affect, slowness, apathy, incoherance of thought processes and inability to maintain normal social interaction patterns. Amongst the most badly affected mutism and total withdrawal may result whilst even in the less disabled long-term additional neurotic symptoms like worry and depression often accompany the condition. (Cheadle *et al* 1978). It is as yet uncertain whether the latter responses are directly related to the primary illness or whether they are reactions to the loss of status, self esteem and certainty as to the future often experienced amongst people diagnosed (and so labelled socially) as 'schizophrenic'.

The proportions of patients with various degrees of disability within populations of schizophrenics depend on the patterns of support and treatment available. Since the early 1950s medicines have been available which help to reduce florid symptoms and protect against relapse although they are of little proven value as regards chronic negative impairments. Since the same time efforts have also been made to improve hospital conditions and extend other services, including those aimed at rehabilitation. But it is not known what levels of success may ultimately prove attainable, even without any further advances in therapy, because development has been 'patchy' and in the main poorly monitored.

Further improvements in the overall prognosis of schizophrenia are thus possible. However, because this term still refers to a wide range of discrete medical and social states it is impossible to predict accurately from past trends the future results of service improvements. The groups of 'schizophrenics' successfully rehabilitated when traditional policies of mental hospital admission and subsequent long stay treatment were first changed may not have been suffering from the same condition(s) as the people who today are at risk of becoming long-term patients.

## Models of mental illness

In the absence of any definitive proof as to the causes of schizophrenia most British psychiatrists adopt what might be termed an 'eclectic medical' model of the condition. That is one which involves regarding schizophrenic states as illnesses in a broad sense but which draws pragmatically from a range of sources and is not committed to any one theoretical explanation of their nature.

Yet a number of alternative models exist. On the one hand there is the 'hardline' medical view which unquestioningly attributes schizophrenia to biochemical or related bio-physical abnormalities and sees treatment purely in terms of adjusting drug regimes and the use of physical techniques like ECT. On the other there are the exclusively social views of mental illness which look to liberation from allegedly repressive social systems and false intellectual constructs or which regard 'schizophrenia' as a form of deviance. In addition there is the approach of Laing and allied theorists who stress the interactional causes and outcomes of schizophrenia, albeit in a neomarxist framework which may cast the family unit as a key mechanism of oppression in capitalist societies.

Laingian and associated therapists normalise the condition in terms of stressing the intelligibility of much 'schizophrenic' behaviour, arguing that it might be seen as a strategy for living in exceptionally difficult circumstances and that many of the experiences of people 'in schizophrenia' have value for other members of society. They point to social and anthropological factors which may be of relevance, like the fact that in societies like modern Britain no clearly ascribed roles exist for 'good hallucinators', the seers and religious prophets of the past. But they do see people with schizophrenic symptoms as often being in need of help – treatment – and unlike commentators like Szasz do not totally discount disease models of the condition. Laing accepts that although those involved in psychiatric care currently have to rely on observations of their patients' behaviour and reported subjective experience rather than any evidence of proven biochemical defects it is quite possible that the central elements of schizophrenia will eventually be shown to have a partly 'medical' (ie, somatic) basis for their existence rather than an entirely social one (Laing 1978).

Wing (1978a) has argued that it is artificial to try to create separate or exclusive social and medical models of disease. And in practice it may be counterproductive. Conflict between groups ascribing to non-compatible explanations of conditions like the schizophrenias can sometimes generate fresh understandings and may undoubtedly be of significance in terms of individual and col-

lective professional attempts to gain status and influence within the health and social care field. But it should not be forgotten that such progress is often achieved at the cost of ignoring or disguising important aspects of the problems actually faced by the people suffering such illness or distress and their relatives. Thus in the light of current knowledge of the probably multifactorial aetiology of schizophrenia and the diverse social handicaps it may generate it would seem appropriate to adopt as flexible and catholic a model as is possible.

It would also seem logical to structure it in such a way as to allow maximum comparability between it and those of other potentially handicapping conditions like, say, mental retardation or rheumatoid arthritis (Taylor 1979a). Various commentators use terms like extrinsic and intrinsic handicap in what appears to be an idiosyncratic manner, or at least one which today would not be accepted by many people working in the field of non-psychiatric disability. Figures 1a and 1b outline an overall model of disablement which is gaining widespread acceptance and show how it might be applied to the specific example of schizophrenic illness. They are based on the work of Wood *et al* (1975, 1978).

# The occurrence of schizophrenia

The problems inherent in psychiatric epidemiology have been reviewed by many writers. For instance, Mechanic (1970) has pointed out that these relate not simply to defining the conditions to be studied in a satisfactory manner but also to the development of field techniques capable of allowing their full identification in given populations. The application of different theoretical approaches to the schizophrenias coupled with the effects of varying survey thoroughness means that cross study comparability in this field tends to be low. However, modern research methods may obviate some of these difficulties.

Discrepancies in recorded rates of schizophrenia between the United Kingdom and the United States may be used to illustrate the above points. Since the Second World War a number of commentators have pointed out that the chance of being diagnosed as schizophrenic is between two and three times greater in America than it is in Britain. In an attempt to clarify such observations a group of researchers started in 1965 a US-UK Cross National Project based on the use of a standardised diagnostic interview known as the Present State Examination (PSE). This provides a method of determining the presence or absence of a wide range of psychotic and neurotic symptoms.

**Figure 1a** *Disablement – the basic model*

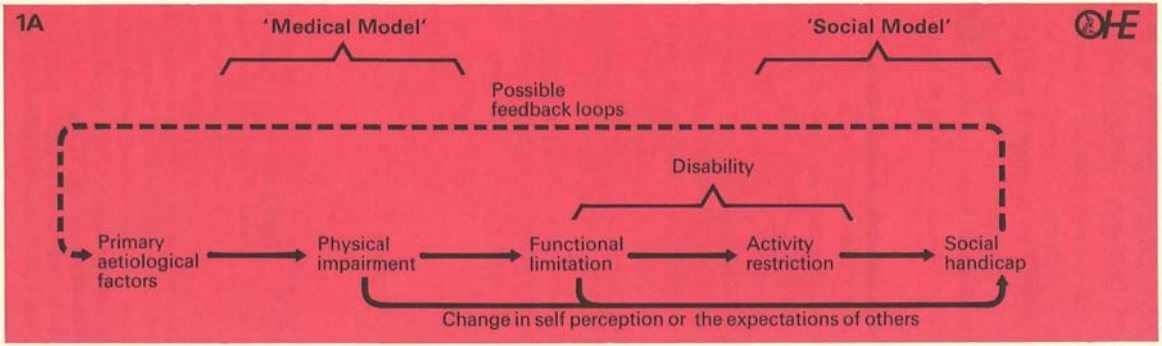
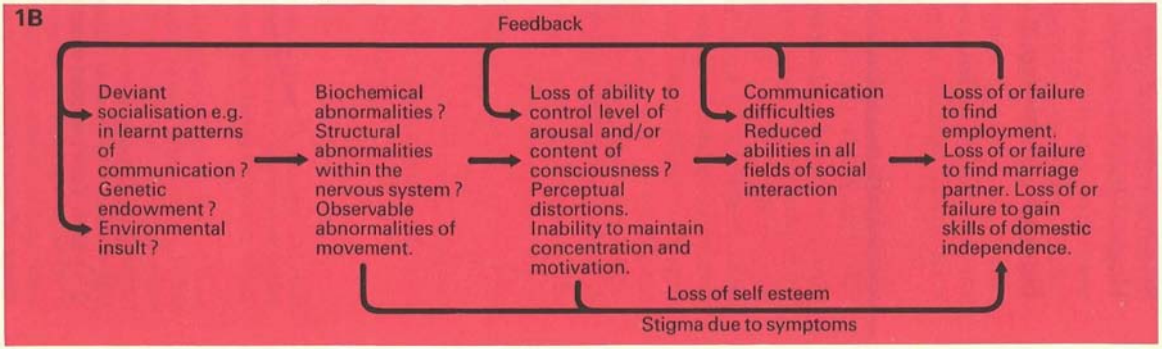
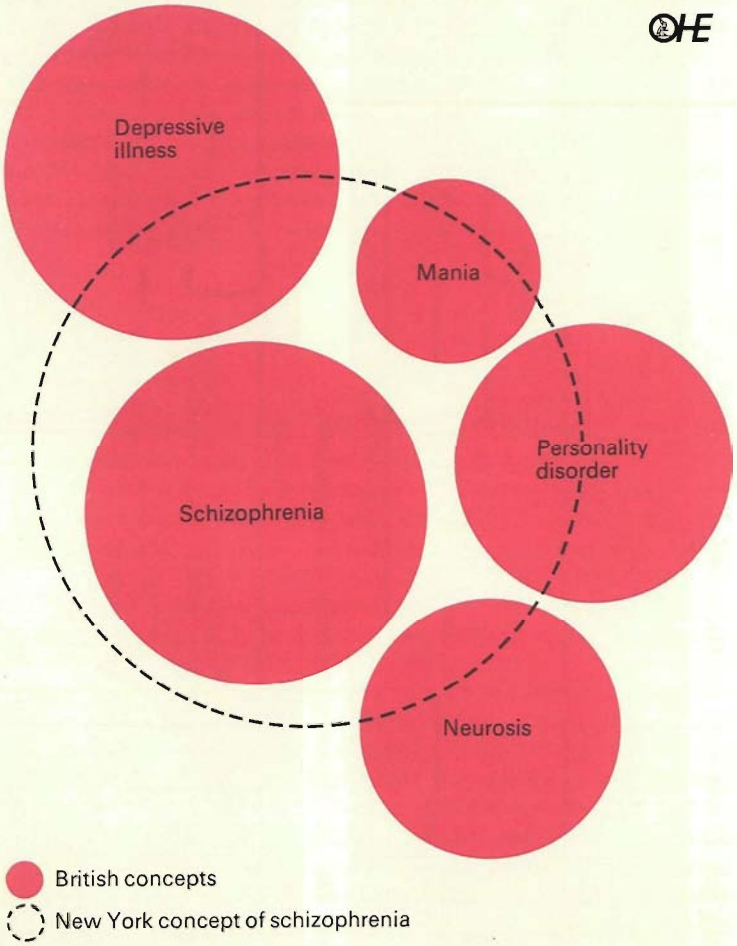



**Figure 1b** *An illustrative application to schizophrenia*



The investigation indicated that there was no underlying difference in the incidence of the disease in the two countries. Rather it showed that American psychiatrists tended to regard as 'schizophrenic' conditions which in the UK would be diagnosed as affective disorders, as illustrated in Figure 2. It also revealed major regional differences in psychiatric practice within the United States as compared to a more homogeneous pattern in Britain. Hospital based American doctors diagnose 'schizophrenia' more

**Figure 2** *Terminology of mental disorder*




*Source* Cooper 1975.

readily than their community based colleagues. Those on the East coast show a particular predilection for the term. (Cooper *et al* 1972, Professional Staff of the US-UK Cross National Project 1974).

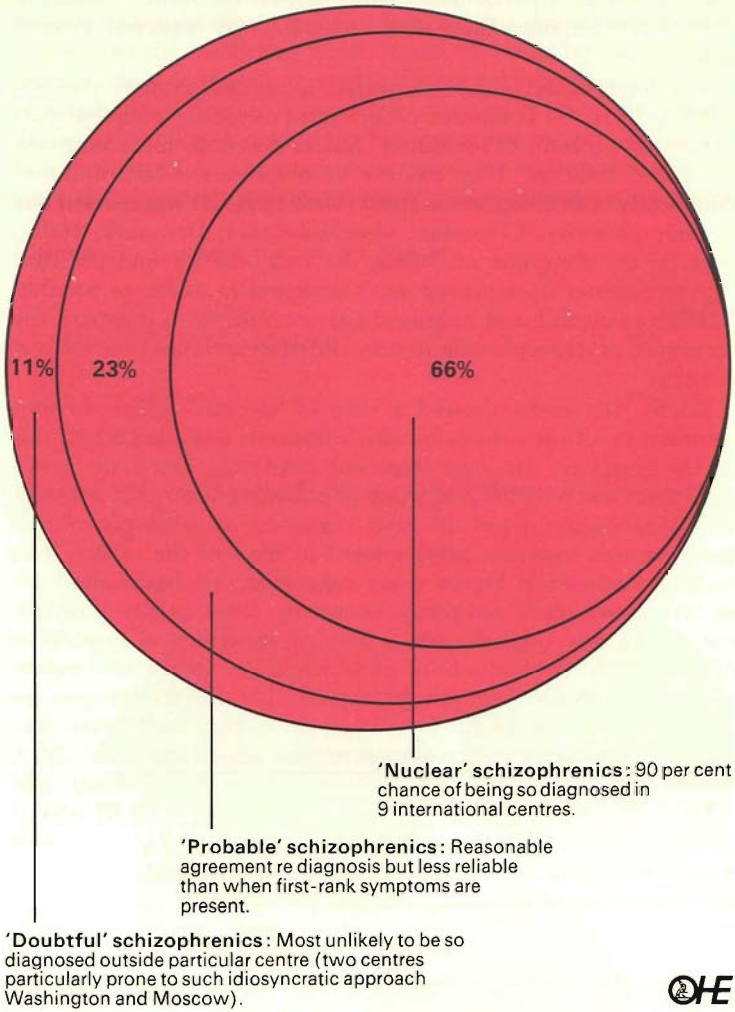
A second study which employed a revised version the PSE (analysed via the computer programme CATEGO)[5] coupled with additional procedures including clinical diagnosis has confirmed the above findings. This was the WHO sponsored International Pilot Study of Schizophrenia (IPSS) (WHO 1973). It was carried out in nine countries: Colombia, Czechoslovakia, Denmark, India, Nigeria, the Republic of China, the USSR, the UK and the USA. The techniques it employed were designed to as far as possible to bridge cultural and linguistic barriers and so to compare the occurence of schizophrenia in very different societies (Sartorius *et al* 1974).

Briefly, its results showed a core of 'nuclear' schizophrenics common to all the centres in which research was conducted. But on the periphery amongst those not displaying first rank symptoms there was a significant group of patients clustered in Moscow and Washington who although regarded as schizophrenic in those centres were not so diagnosed in most of the others. The findings outlined in Figure 3 are suggestive of a basic condition involving first rank symptoms occurring fairly evenly throughout the world coupled with a varying incidence of borderline diagnoses, the most doubtful of which occur in the two superpowers. It should perhaps be added that Soviet theories on schizophrenia stemming from the work of psychiatrists like Snezhnevsky at the Serbsky Institute differ markedly from those commonly expressed in the United States[6] and also that in terms of outcome the idea of a uniform core of schizophrenic illness is questionable. Recovery rates in the developing countries appear to be more favourable than those prevailing in the industrialised nations (Sartorius *et al* 1977).

5 In America another computer programme known as DIAGNO III was widely used (Spitzer *et al* 1974). This drew data from two key sources which included historical information. It has now been superseded by DSM III which uses a European approach.

6 Soviet theorists identify mild forms of schizophrenia which in the West would be considered to be neuroses or character related phenomena. It has been suggested that because Soviet commentators regard their social structure as fundamentally 'correct' they are biased against social explanations of mental ill-health in the USSR. Criticism of the social system in such circumstances may be taken as a sign of mental disorder. However, in balance it may be pointed out that only a very limited number of people in Soviet hospitals are likely to have been affected by such factors and that Soviet law allows political 'dissidence' to be controlled without any need for the use of psychiatric justifications.

**Figure 3** *International variations in the diagnosis of schizophrenia*




*Source* WHO 1973.

## Schizophrenia in Britain – the administrative prevalence

Extrapolations based on first admission rates to mental illness hospitals in England indicate a lifetime incidence rate for schizophrenia between 0.8 and 0.9 per cent. This figure is in line with most European estimates of the frequency of occurrence. It

suggests that there are over 300,000 people in Britain today who have had at some time a condition diagnosed as schizophrenic. Of the former total it is likely that in the order of 150,000 are still actively affected, although probably no more than 110,000–120,000 are regularly in contact with the health services (OHE estimates). The great majority of these people are of working age. In all there are today in the order of 40,000 individuals in UK mental illness hospitals at any one time who have a diagnosed schizophrenic state.[7] Probably another 60–70 thousand are in receipt of day care or attend outpatient clinics from time to time.

It must be stressed that these figures are estimates which may be subject to error. Diagnostic and admission practices have changed in the recent past. For example, first admission rates for schizophrenia have dropped some 30 per cent in England since the early 1960s (there are currently some 6,000 new cases diagnosed in the UK annually) although those for other categories, notably 'personality disorders', have shown possibly related increases. However, the comparability of these data is limited due to the impact of classification changes. Regarding the availability on the mental hospital inpatient population in England and Wales, the position is that the last comprehensive census was in 1971. *Estimates based on it are now of limited value.*

In the latter context it may be noted that in Scotland, where fuller figures are available, the overall level of hospitalisation for mental illness is almost twice that in England. And for schizophrenia Scottish readmission rates are some 20 per cent below those for England. Even so in both countries a pattern of 'revolving door' care has emerged hand in hand with attempts to avoid the permanent institutionalisation of patients. Also, readmissions for schizophrenia have if anything tended to fall in England in the last few years, even though they still account for well over 80 per cent of the total number of admissions under this diagnostic heading.

## Inner cities, class and immigration

Underlying the differences in the administrative prevalence of schizophrenia in various parts of the UK a number of investigators have reported apparent fluctuations in 'true' prevalence as revealed by epidemiological surveys. Both in this country and abroad a number of attempts have been made to explain such skews. For instance, efforts to understand apparent geographical

7 Estimate of English population based on reported median length of stay plus allowance for long-term residential population. Scottish data as published in Scottish Health Statistics, 1977.

variations in the occurrence of schizophrenia date back to the 1930s when Faris and Dunham found that rates were unusually high in the poor inner city areas of Chicago. At first these findings were assumed to have causal significance. It was thought that the poverty and social isolation of these localities were positively schizophregenic. But subsequent studies in Europe (Hare 1956) and America (Dunham 1965) cast doubt on this interpretation. It is today accepted that it is movement into such areas, either because subjects are positively seeking isolation or because they tend to be rejected by other more structured communities less tolerant of deviance, which results in such concentrations of individuals diagnosed as schizophrenic.

The influence of selective population movements on schizophrenia prevalence rates is well illustrated by inter- and intranational migration studies. For instance, Böök (1953) found the prevalence of schizophrenia in the north of Sweden to be some three times that shown by other studies in less harsh and isolated parts of Scandinavia. One explanation of this observation (other than that of methodological error) is that people less temperamentally suited to lives with relatively low levels of social contact tended to move away faster than did those with withdrawn, 'schizoid' personalities.

As an illustration of this possibility it may be noted that in Norway people who move from rural areas to cities other than Oslo have been found to be a 'low risk' population for schizophrenia (Astrup and Odegäärd 1960) although earlier Odegäärd had found an above average occurrence of the condition in Norwegian immigrants to the United States. In Eire schizophrenia rates appear high both absolutely (especially in the isolated west – Walsh 1971) and relatively to those amongst Irish immigrants to England (Clare 1974).

Parallel results have emerged from studies of social class and social mobility related to schizophrenia. Hollingshead and Redlich (1958) demonstrated a clear positive correlation between low social class and the incidence of diagnosed schizophrenia. Initially a causal relationship was again suspected but subsequent research revealed high levels of downward social mobility – as indicated by occupational status – amongst schizophrenic people (Goldberg and Morrison 1963). This can in turn be related to poor educational attainments, not simply because overt attacks may disrupt, say, a university career but because performance may be depressed before symptoms become manifest.

The suggestion of pre-morbid (or pre-diagnosis) effects on life events is also implicit in the data on marital status of people diagnosed as having schizophrenia. Recent figures indicate that over half of all males with such a diagnosis do not marry (Brown

*et al* 1966, Cheadle *et al* 1978). Although some two-thirds of female schizophrenic subjects do (a possible reflection of role differences in the formation of sexual contacts) their divorce and separation rates are well above national average figures. However, outcomes in terms of recovery or good rehabilitation from the disease are positively related to being married (Bland 1978) and very probably also to factors like higher educational attainments. This conjunction is not merely evidence that more severe cases fall into other categories. It may also be that such variables are significant in the process of recovery from if not in the initial aetiology of schizophrenia.

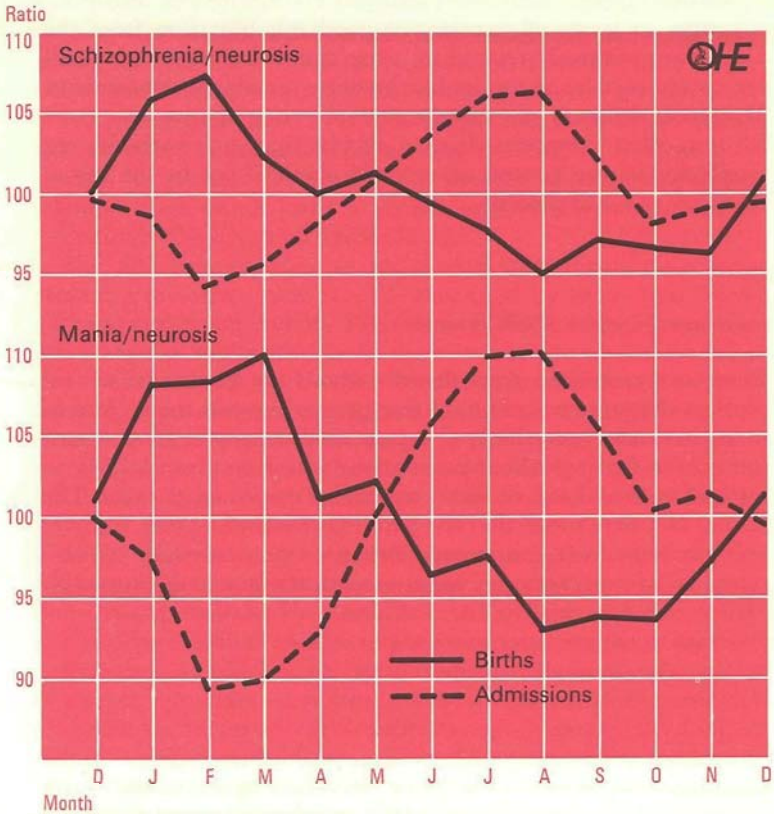
## Causes

There are numerous rival theories about the genesis of schizophrenia. Most have little hard evidence to support them. And in many instances even this is of a questionable nature, given that it stems from findings about populations who have lived largely in institutions and have received treatment over long periods. The former fact may mean that the patterns of infection, diet, activity and exposure to environmental hazards experienced by 'schizophrenics' are markedly at variance with those seen in 'normals'. Hence theories relating, say, evidence of unusual patterns of infection to the existence of schizophrenia are unlikely to be valid. Whilst the long-term consumption of medicines may alter individual biochemistry in such a way as to make the nature of the underlying condition very difficult to observe accurately.

Another problem, noted earlier, is that the effects of the disease(s) may involve changes of individual characteristics (and consequently social standing) which are then interpreted as part of the aetiological pattern. Depression of intellectual performance is one example of this, although some commentators have put forward a model which relates high intelligence plus schizoid traits to creativity and low underlying intelligence plus schizoid traits to overt mental illness. However, the value of this postulate is doubtful and there are numerous cases of formerly creative people who lost their mental abilities after developing a schizophrenic condition.

Yet some long established observations of schizophrenia may provide genuine clues to its causality. For instance, Ernst Kretschmer's work on physique and character in the 1920s associated thin, asthenic body builds with a raised risk of its occurrence. Subsequent work by authorities like Sheldon, Rees and Eysenck has supplemented this original observation, which is

**Figure 4** *Monthly births and admissions for schizophrenia and mania, expressed as a percentage of the number expected on the basis of births and admissions for neurosis: three-monthly running averages*




*Source* Hare and Walter 1978.

indicative of a possible link between genetic constitution and schizophrenia.

More recently researchers like Hare and Walter (1978) have linked data on abnormal patterns of seasonal birth distribution amongst people diagnosed as schizophrenic, who show an unusual peak in birth date around February, to recorded rates of hospital admission. The latter peak in June, which could be indicative of abnormally high levels of activity in schizophrenics in the late spring/early summer period leading to a concentration of births

in February. Figure 4 shows that similar patterns prevail in relation to manic states.

Various commentators have sought to link these apparently robust findings with other data such as observed abnormalities in circadian rythyms in schizophrenic subjects, the high rates of the condition recorded in areas with harsh climates and similar birth data skews noted in groups of professional musicians.[8] At present, however, none of the alternative explanations suggested for the figures on seasonal variations in birth date and rates of schizophrenia (which have also been shown to exist in the same manner in European populations in countries like New Zealand) are convincing.

The remainder of this section reviews broadly the three most important areas where there is evidence relating to the aetiology of schizophrenic illness. First, the significance of inherited factors. Second, the role of environmental influences like patterns of family life. And, third, biochemical research. Often findings gained from studies in one or other of these fields are presented in such a way as to question or contradict causal hypotheses derived from work conducted in another. But it is stressed that the approach adopted in this paper is based on the view that schizophrenic illness is, in its overt expression at least, multifactorial in origin and that on the whole the existing firm data in all of the above areas may be regarded as mutually complementary.

## Genetic heritage

Around 90 per cent of the people who have a parent, brother, sister or child diagnosed as schizophrenic do not themselves develop the condition, at least as any overtly recognised psychiatric abnormality. This fact is of significance for two main reasons. First, general awareness of it should help to dispel some of the alarm that people who have a relative diagnosed as schizophrenic sometimes feel. Second, from a technical viewpoint it indicates that models of single gene transmission of schizophrenia as a unitary entity are either untenable or that they have to be modified by ideas like that of genetic 'partial penetrance'.

However, this does not mean to say that all ideas of a genetic basis of at least some forms of schizophrenia should be abandoned. That there is some inherited association is demonstrated by the fact that studies show a very much raised incidence of the illness in children where both parents are affected, up to 40 per cent

8 The link between vulnerability to schizophrenic illness and musical ability is postulated rather than proven. It may be that a common factor is that both involve high levels of auditory imagination.

(Wing 1978a). Also recent research, the most important of which has been conducted in Denmark, has examined the experience of twins and adopted children in relation to schizophrenia. This indicates that concordance of psychiatric history is greater between genetically identical (monozygotic) twins than amongst others. And it has been found that the children of schizophrenic parents reared by non schizophrenics are at greater risk of developing the disease than are the adopted children of people who are eventually diagnosed as suffering the condition.

These research results carry with them a number of implications about the occurrence of schizophrenic states and the possibilities for their future treatment. For instance, those responsible for the Danish adoptive studies have been led to believe that there is a spectrum of conditions ranging across from chronic confirmed schizophrenia to schizoid traits in individuals capable of normal independent life which has its basis in genetic endowment (Rosenthal and Kety 1968). This might appear to support the type of broad clinical approach to schizophrenia adopted in some countries. Yet the prevailing British view is that although the spectrum concept is appropriate as a research tool its application to patients 'in the field' is likely to prove misleading. Differing individual treatment needs may be obscured and people could be needlessly stigmatised by the application of imprecise diagnostic terms.

As far as future therapeutic innovations are concerned the existence of discernable genetic influences in schizophrenia is indicative of the associated existence of potentially correctable biochemical mechanisms. In general it may be said that if some or all schizophrenic states can eventually be related to single gene abnormalities then the long-term outlook for a fully effective means of cure or prophylaxis is relatively bright. But if several genetic factors are involved then it is more likely that there will always be a need to combine the use of medicines for symptom prevention or alleviation with special forms of social care and support.

## Environment and experience

Theories relating external influences to schizophrenic illness are of two main types. Those usually psychoanalytically oriented ones which hypothesise that such factors are of significance in the genesis of schizophrenia: and those which indicate that their primary impact relates to the course and outcome of the condition.

The former normally centre on patterns of intra-family interaction. Their origin dates from a seminal paper on 'schizophregenic mothers' by Fromm-Reichmann in 1948. Since

that time elaborations on the basic theme then suggested include in America the work of Lidz (Lidz *et al* 1965), Bateson (Bateson *et al* 1956) and Wynne and Singer (1963). In Britain the contributions of Laing are the best known (Laing and Esterson 1964).

Amongst the concepts generated by these researchers is the idea that conflicts and struggles for dominance within families lead to 'schisms and skews' in the relationships between parents and their children which may deprive the latter of the skills and or emotional security needed to attain normal independence. Subjects may be 'smothered' or 'engulfed' by one or the other parent (Laing 1959).

Linked to such suggestions is the postulated influence of the 'double bind', first described by Bateson. This involves presenting individuals with a constant series of irresolvable paradoxes. Coupled with this is the view that other types of conflicting or ineffective communication and/or problem solving are characteristic features of the familial environments of people who become schizophrenic. Individuals who undergo critical stages of personality development under such circumstances are by some theorists thought to develop an initial schizophrenic reaction as a defence against uncertainties and self doubts.

Other psychiatrists see schizophrenic breakdown and the establishment of subsequent role patterns which perpetuate the illness state of the victim as being in part at least a consequence of the need to maintain a tenable structure of family relationships. That is to say the 'sick' person is trapped in a situation of being obliged to accept the label of deviance and 'sickness' imposed on his or her attempts at self expression or to reject the family's authority and risk its total destruction (Scott 1975).

Such theories may have attractive and informative elements within them. Yet they are in most instances based on observations of small numbers of families. Where efforts to reproduce key findings have been made they have in many instances proved unsuccessful. For example, Hirsch and Leff (1975) attempted to confirm in Britain some of the results of both Lidz's and Wynne and Singer's American work. They concluded that all that could be firmly said was that although families of schizophrenic people show raised levels of conflict, distress and disharmony there was no clear evidence for attributing a causal role to such tendencies.

Such observations counsel caution in the application of family based approaches, especially as there is a danger that people might be wrongly blamed for the illness suffered by their relatives. The enquiry into Napsbury Hospital (HMSO 1973) indicated the possibility of such a hazard even in regulated environments. Whilst Clare (1976) has summarised a number of distressing experiences suffered by parents exposed to scape-goating or

otherwise unsympathetic treatment.[9]

By contrast the evidence that external factors can influence the course and symptomatic expression of both acute and chronic schizophrenia is of unquestionable strength. For example, the MRC Social Psychiatry Unit has provided impressive data on the relationship between overtly expressed criticism and critical emotion within families and the probability of subsequent recurrence of acute relapses (Brown *et al* 1962, 1972). This research also revealed the importance of factors like the amount of time relatives spent in face to face contact. More than 35 hours a week was the cut off line identified by the team as being indicative of increased risk of relapse in a critical atmosphere. Significantly Brown and his colleagues found that it was amongst those patients subjected to high levels of critical emotion that major tranquillisers were of most value in preventing psychiatric crises.

Vaughn and Leff (1976) independently confirmed these results. Their figures indicated that nine out of ten patients diagnosed as schizophrenic going from hospital to homes with high levels of expressed emotion (EE) without protection from medicines or controlled levels of face to face contact would have an acute relapse within nine months. Only around half of those either on medicines or with limited levels of family contact did so. With both protections the risk was down to between one in five and one in ten.

As regards the course of the chronic illness modern British research suggests that in schizophrenia acceptable levels of social stimulation are reduced to a very narrow spectrum as compared to the wide tolerance of normal subjects. In this 'tightrope' situation too little stimulation may lead the subject to sink swiftly into a negative, withdrawn state; the classic 'back ward' syndrome. Too much will generate florid schizophrenic symptoms. Such a model applies to work environments such as rehabilitation centres (Wing *et al* 1964) although the protective effects of drugs relative to acute relapse do not appear to have been rigorously tested in normal working contexts. It may be added that although critical emotion in a family setting seems to be the most potent precipitator of such distress other types of stimulation, from falling in love to intrusive social work interventions, can be similarly catastrophic (Goldberg *et al* 1977).

Taken together these important findings of scientifically conducted social research create a picture of schizophrenia as a state of vulnerability in which the mechanisms controlling the

9 The fact that the Schizophrenia Association of Great Britain is committed to a biochemical understanding of schizophrenia is an understandable reaction. The National Schizophrenia Fellowship's approach is more eclectic.

arousal level of the subjects are excessively influenced by external factors. As a result of such a functional limitation disabilities and handicaps occur. It is of note that recently Tarrier *et al* (1978) have shown that the presence of 'low emotion' relatives reduces the arousal levels of schizophrenic patients as measured by physiological tests such as skin conductivity. Critical or otherwise 'high emotion' relatives have no effect on patients' abnormally high rest arousal levels. Such findings have led to considerable interests in the possibility that appropriate education may help relatives to adjust their manner towards patients and so have a positively therapeutic effect on them. Research aimed at evaluating the possibilities in this area is currently being conducted by the MRC Social Psychiatry Unit.

## The biochemistry of the schizophrenias

Early ideas about underlying biochemical impairments which promote schizophrenic illness often involved the belief that abnormal toxic substances may be formed in the bodies of people subject to the condition(s). For instance considerable interest focussed on the reported finding of a mescaline-like substance in the urine of people diagnosed as schizophrenic. This came to be known as 'pink spot' after the test used to identify it. But subsequent investigations failed to show any clear link with the schizophrenia. This is an example of the fact that simply because a patient group may display some particular biochemical abnormalities[10] it should not be blindly assumed that they are causal factors. Rather they may be the result of secondary physiological reactions to social stress and psychological distress.

Perhaps the most significant evidence in favour of the toxic metabolite view of schizophrenia is the observation originally made by Kety (1961) and his colleagues that some 40 per cent of schizophrenic patients react in clinical terms adversely to the amino-acid methionine. The latter acts as a 'methyl donor' which means that it is possible that schizophrenia may at least in some cases be related to the production of or abnormal reactions to substances such as dimethyl tryptamine (DMT), a potent hal-

10 A further example of a biochemical abnormality known to exist in association with schizophrenia is trans-3-methyl-2-hexenoic acid, a malodourous substance found in the sweat of some subjects. Others include unusual nicotinamide metabolism and abnormal blood histamine. The latter apparently relates to two distinct sub-groups, one with raised levels and the other with very low levels. Trace metal (such as zinc) and vitamin deficiencies related to abnormal metabolism may also be aetiologically significant; they are certainly of importance in some diseases which may mimic aspects of schizophrenia. Other theories postulate that a sensitivity to wheat may be involved in some cases, that schizophrenic states might be associated with hyperallergic reactions and that abnormalities in melatonin synthesis could be relevant.

lucinogen derived from naturally occurring tryptamine. However, this hypothesis remains unproven and methionine can influence body biochemistry in many ways. Most authorities hold the view that a process more complex than the occurrence of endogenous psychotogens must be involved in most cases of schizophrenic illness.

A more important line of research has been into the biochemistry of neuro-transmission and how abnormalities in this area could relate to schizophrenia. Such theories stem from the discovery in the early 1950s that chlorpromazine may control acute symptoms of schizophrenia and the subsequent observation that this medicine has the capacity to block the receptors of both dopamine and noradrenaline (the catecholamines). These substances facilitate the passage of nerve impulses across the synaptic gaps between nerve cells. The belief that dopamine associated factors may in particular be critically involved in the biochemistry of schizophrenia has been supported by experiments involving the use of amphetamine induced model psychoses in men and animals and by sophisticated experiments using drugs which selectively block single transmitters.

Yet even in this area simplistic interpretations of findings, such as the view that schizophrenia stems from 'too much dopamine', are of negligible value. Complications include the fact that dopamine itself may have a variety of facilitatory and inhibitory functions and that its effect may vary considerably in relation to the status of the dopamine receptors. It has been speculated, for instance, that receptor hypersensitivity may sometimes be involved whilst very recently MRC backed investigators have apparently identified specific areas in the brains of some younger people with diagnosed schizophrenia which have significantly raised numbers of dopamine receptors (Crow 1978, Iverson 1977, 1979).

Two other important considerations in the context of theories relating to schizophrenia and dopaminergic neuro-transmission are, first, that there are now known to be at least two different types of dopamine receptor; and, second, that there is a considerable delay between the administration of an antipsychotic drug and its therapeutic effect. Both observations are indicative of the need for more research and of the possibility of more appropriate treatments in the future. For instance, the time taken for medicines like chlorpromazine to start working (up to a fortnight) could mean that their useful effect is only indirectly related to dopamine receptor blockade. It is interesting to note that this will, after about a week, cause increased levels of release of the pituitary hormone prolactin. This in turn leads to tertiary phenomena like a raised level of prostaglandin production. The idea that schizophrenia is somehow linked to a prostaglandin de-

ficiency may be reconciled with several other key explanations of the condition.

Regarding other biochemical factors which may be related to schizophrenic illness some researchers have drawn attention to the possible role of another neurotransmitter known as GABA (gamma amino butyric acid). The activity of this substance in the brain is affected by some of the medicines used to treat schizophrenia. Some theorists have linked its possible (but questionable) depletion to its inhibitory functions and psychophysiological observations to the effect that schizophrenic people tend to be unable to 'screen out' unwanted stimuli (resulting in high arousal levels) or to block inappropriate responses (leading to bizarre behaviours and disordered thought patterns.)

In conclusion it appears that although some commentators seem unwilling to accept that biochemical investigations and interventions are likely to be important in solving the problems created by schizophrenic illness the reality is that in the future an increased medical facility for the correction of underlying biochemical impairments may well pave the way for the reduction of mental disabilities and social handicaps. The fact that the current range of medicines available has a variety of unpleasant side effects, some of which may be permanent, and that they are of relatively little use in treating negative schizophrenic defects, is evidence of the need for a greater concentration of resources in this field.

For example, one of the most encouraging developments of recent years was the discovery in 1975 of a family of neurotransmitters known as enkephalins and endorphins. These are 'natural opiates' in that they act on the same sites as do morphine and related drugs and it now seems that in addition to regulating pain pathways they may also be involved in the pathogenesis of some aspects or forms of schizophrenia. Experiments with morphine antagonists like naloxone as well as with beta endorphin (produced naturally in the pituitary) support this view. They also give credence to the hypothesis (Comfort 1977) that in some instances the illegal use of morphine may be an attempt to gain relief from distressing psychotic symptoms not offered by conventional therapy. Such observations suggest the possibility of new treatments for schizophrenia the direct action of which may involve entirely novel therapeutic approaches.

# The provision of care

The pattern of mental health care which developed during the nineteenth century and first half of the twentieth century was one based primarily on isolated institutional support. Despite the

humane approach adopted by some early advocates of 'moral' treatment of mentally distressed people – the Tukes of York, Philippe Pinel in France and John Conolly, physician at the Hanwell Asylum, are three examples – many of those responsible for the care of 'the insane' were concerned only with ensuring custody and control, often by crude physical restraint.

The Victorian and Edwardian publics' interest in the field was ambivalent. It swung from a desire to see 'madmen' safely locked away at little cost to the rates (although asylums were more expensive than workhouses) to a morbid horror of the possibility that 'sane' men might be wrongly incarcerated. These dual focuses of attention were reflected in the legalistic rather than medical emphasis which characterised mental health care up until the 1930s.

From that time onwards the separation between the services for the mentally and the physically ill began to break down. This process was in part initiated by the work of a Royal Commission on Lunancy and Mental Disorder (the MacMillan Commission 1924–26) which defined mental illness as 'the inability of patients to maintain their social equilibrium' but also argued that it was essentially a 'public health problem'. In so doing the Commission was in part endeavouring to reduce the stigma and isolation which had come to surround admission to an asylum. The 1930 Mental Health Treatment Act which followed made possible the admission of mentally ill people to ordinary hospitals and permitted the development of some out-patient services.

However, the success of these measures was limited. In retrospect the medical approach to conditions like schizophrenia in 1930s may be seen to have shifted from largely administrative concerns to over-simplistic treatments ('attacks') on a somatic level. Insulin shock therapy, electro-convulsive therapy and destructive surgical techniques like leucotomy all originated at that time. Yet their employment did little to reduce the impact of schizophrenia (even at the end of the decade less than one person in every three admitted to a mental illness hospital was discharged after two years stay) and public and professional attitudes towards the condition remained fearful and ill informed. As Laing (1959) has warned understanding of complex mental distress like schizophrenia cannot come from attempts to reduce people to a series of 'it-processes', that is depersonalised biological systems, any more than it can from mysticism or superstition.

Following the formation of the NHS the introduction of the first major tranquillisers, chlorpromazine, combined with new thinking in fields like psychiatric rehabilitation led to a further wave of reforms in the provision of support for mentally disturbed or impaired people. After the 1954–57 Royal Commission on

Mental Illness, the 1959 Mental Health Act made possible the informal admission of psychiatric patients on the same basis as physically ill individuals. This paved the way for the 1962 Hospital Plan which envisaged the dissolution of the traditional pattern of mental hospital care and its replacement by a system of psychiatric units attached to each District General Hospital.

In the climate of time, which was strongly influenced by publications such as Goffman's 'Asylums' (1961), the work of individuals such as Querido (1955) McKeown (1958) and Baker (1961) on alternatives to the old pattern of admission and care and statistical projection's such as those of Tooth and Brook (1961) showing a falling 'need' for inpatient beds, the Hospital Plan was widely welcomed. Yet the British governments' plans for closer association between psychiatric and other forms of medicine varied significantly from those of many of the commentators who had advocated new patterns of care.

For example, an important WHO Expert Committee Report (WHO 1953) had specifically pointed out that 'psychiatric wards of general hospitals are often forced by the expectations of hospital authorities to conform to a pattern harmful to their purpose'. Authorities in some other countries adopted a rather different approach as in the case of the United States which in 1963 introduced the radical Kennedy Community Mental Health Centre Programme. Although the United States lacks the capacity to provide the overall pattern of services theoretically possible in Britain it is of the note that the CMHCs were clearly intended to be independent of other health facilities. And the contributions and authority of psychiatrists were from the start strongly balanced by those of other professional groups such as psychologists and social workers.

There are several linked criticisms of the pattern of mental health care currently being developed in Britain which have special relevance to the interests of patients with schizophrenia. For instance, it has been suggested that in England the level of long-term residential hospital or allied provision for those chronically disabled by the condition may be being reduced too rapidly and or too great an extent. Also, regardless of whether or not it is accepted that the number of long-term inpatients should be cut to the absolute minimum possible, many authorities argue that adequate resources have not been put into alternative 'community based' forms of support. And it is widely thought that coordination between the various services actually available from the NHS, the local authorities and other state agencies is so poor as to significantly reduce their value to their potential consumers. The remainder of this section examines aspects of such questions in further detail.

## Objectives and attitudes

Unlike the field of physical disablement, where studies like the OPCS survey 'Handicapped and Impaired in Great Britain' and the improved local authority identification of people in need of support have provided much valuable information, little good data is available about the mentally disabled population in the community. Even today there is relatively little research into how those who have been ill fare after discharge from hospital and in what circumstances they live (Freeman 1976). Case register studies, such as those at Camberwell and Salford, do not necessarily give a national picture, particularly regarding patients who 'drop out' of care.

Thus in relation to schizophrenia only approximate estimates of the numbers living at, say, home with their parents or spouses or in various types of hostel can be made. Roughly it would seem that there are some sixty thousand appreciably affected people suffering a chronic schizophrenic condition who live outside any form of residential accommodation provided by the NHS or local authorities. Around the same number again are either temporarily ill or can cope fairly satisfactorily. The majority of those who are highly dependent are with their families. Some, perhaps as many as 5,000, are destitute or survive in facilities like Salvation Army Hostels (Tidmarsh *et al* 1972, Tidmarsh 1972). And at any one time in the order of 500–1,000 people with schizophrenia are in prison, although those who do not have florid symptoms and who have simply become withdrawn may well not be identified as mentally ill.

In the face of figures like these it is scarcely surprising that some commentators take the view that legislators and service planners have reacted to scandalous revelations of poor quality care for people with chronic psychiatric illnesses in hospitals by simply using 'the community as a dustbin' (Clarke 1976). Such critics believe that although the 1975 White Paper 'Better Services for the Mentally Ill' (HMSO 1975) emotively claimed that 'psychiatry had (in 1962) come in from the cold' many people with conditions like chronic schizophrenia have since that date done precisely the reverse. Psychiatrists like Early (1975) have estimated that the need for long-term hospital places may be over five times greater than some frequently quoted statistic may suggest.[11] Naive extrapolations relating a falling 'need' for beds

11 In an influential study Wing estimated that (for one particular study population) the need for 'new' long-stay beds for people under 65 would be 0.17 per 1,000 population. Eason and Grimes (1976) projected that current trends mean that in 1981 these will be 0.19 per 1,000 'new' long-stay mental illness patients aged under 65 and 0.14 per 1,000 aged over 65.

in the past to projected future reductions are not likely to be accurate.

However, in balance it should be pointed out that at national level at least attitudes towards the long-term future of existing mental illness hospitals have become more flexible. If it should prove that demand for residential places is greater than expected they could be provided. For the present it may be better to emphasise the fact that relatives and (through self-help) schizophrenic patients themselves usually play the main role in providing care and support. In the past a lack of insight into the nature of the conditions involved may have led professionals to underestimate the extent to which people with schizophrenia can with the aid of their families and, where appropriate, modern medicines come to terms with their disabilities and lead a relatively satisfactory life.

Indeed, it could be argued that to some degree concern over topics like hospital *or* community care has served to conceal the more important underlying issues of attitudes and objectives in relation to mental disability and distress. More attention paid to practical measurements of the quality and outcome of health and social service interventions rather than to theoretical debates over the site of care could have helped to avoid the poverty of support families actually coping with schizophrenia face today. Creer and Wing (1974) found only one family in five to be satisfied with the services available. They highlighted the isolation and lack of information encountered by many people in this situation. Wing (1978b) has described the areas where appropriate advice can help patients and their relatives to help themselves. These are shown in Table 2 whilst Table 3 lists some of the difficult behavioural characteristics of significantly affected schizophrenic subjects living at home.

However, the translation of hopes in this field into a reality will require much educational effort as to the purposes of mental health care within the health and personal social services. For example, relatively few service providers as yet seem to have a clear idea as to the relationship between mental disabilities and social handicaps or to fully understand that a satisfactory life style for someone with chronic schizophrenic illness may be very different from a 'normal' life style. In the context of the latter point attempts at psychiatric rehabilitation which place too much emphasis on achieving what to middle class professionals appears a satisfactory degree of independence and social interaction may be behind suboptimal usages of resources.

Hewett and Ryan (1975) in a study of local authority residential provisions found that many seemed reluctant to admit people likely to want to stay for prolonged periods. Hostels are seen by

**Table 2** *Managing schizophrenia. Areas for advice and self-help*

**a) The person with the condition may usefully learn:**

When it is appropriate to take medication
How to recognise and avoid triggering situations
Techniques of specific and restricted social withdrawal
Methods of dealing with primordial symptoms
To find work with competence, given the state of the employment market
To find companions who are not intrusive
To help others to understand the condition.

**b) Objectives for their relatives and friends include:**

Creating a non-critical, accepting, environment
Providing the optimal degree of social stimulation
Keeping aims realistic
Learning how to cope with fluctuating insight
Learning how to respond to delusions or bizarre behaviour
Making use of whatever social and medical help is available
Learning to use welfare arrangements
Obtaining rewards from the patient's presence
Helping patient's attitudes to self, to relatives, to medication, to work.

*Source* After Wing 1978.

**Table 3** *Behavioural characteristics of patients in rank order of frequency*

| *Characteristic* | % |
|---|---|
| Social withdrawal | 74 |
| Underactivity | 56 |
| Lack of conversation | 54 |
| Few leisure interests | 50 |
| Slowness | 48 |
| Overactivity | 41 |
| Odd ideas | 34 |
| Depression | 34 |
| Odd behaviour | 34 |
| Neglect of appearance | 30 |
| Odd postures and movements | 25 |
| Threats or violence | 23 |
| Poor mealtime behaviour | 13 |
| Socially embarrassing behaviour | 8 |
| Sexually unusual behaviour | 8 |
| Suicidal attempts | 4 |
| Incontinence | 4 |



*Source* Creer and Wing 1974.

their administrators as 'half-way' houses in a process of rehabilitation from hospitals to 'the community'. Yet Apte (1968) has shown that many of those entering them after a period of schizophrenic illness do not wish to leave. This may partly help to account for the fact that a proportion of the hostel places available are, despite their limited numbers, unfilled. Authorities are unwilling to risk their being blocked by 'unsuitable' residents.

## Fragmented services for fragmented people?

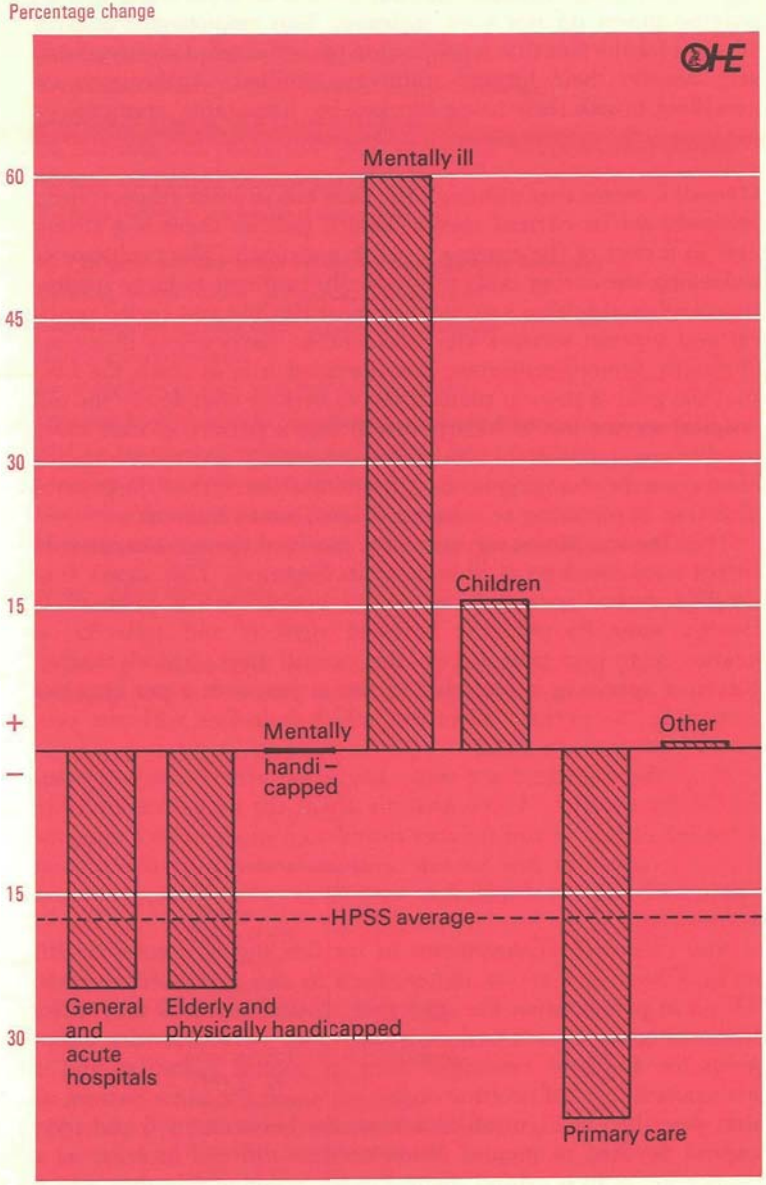
Overall it seems that although the DHSS has in some respects been criticised for its current mental health policies there is a strong case in favour of the current English approach. The problems of unlocking the caring skills traditionally confined to large institutions and establishing a network of more flexible and varied medical and support services are considerable, particularly in a time of strictly limited resources. But provided it is in truth the case that the goal of present plans is not to destroy completely the old hospital service but to incorporate it into a pattern of care more open to contact with the rest of the community and more capable of meeting the changing needs of individual users, then the general direction of planning at a national level seems rational.

That mental illness services have received special attention in recent DHSS thinking is illustrated in Figure 5. This shows that English capital spending on mental health care is planned to rise by some 60 per cent between 1976–77 and 1981–82, as against a 17 per cent fall in the overall HPSS capital budget. Revenue spending is intended to rise at just over 2 per cent per annum in the period concerned, which is in line with the projected HPSS average trend.

Nevertheless, there are some key areas where there is good reason for concern. Those anxious about the actual rather than intended effects of the policies introduced in the 1960s can, for instance, point to low morale and uncertainty in the mental illness hospitals which still deal with 70 per cent of all psychiatric admissions.

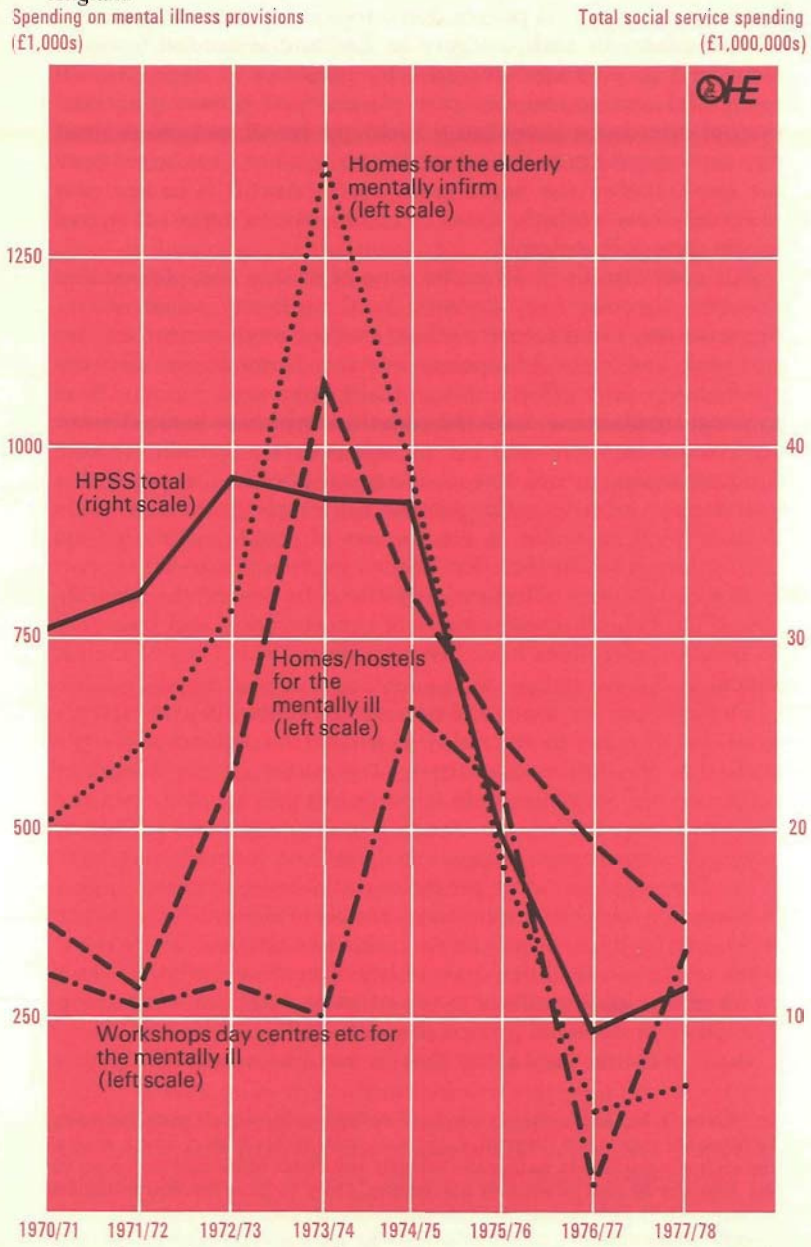
Also intended improvements in the funding of mental health services have not as yet materialised in the published records. This is in part because the aggregate of local decisions may differ from the guidelines issued centrally. The 1976 priorities document for England envisaged rises in capital spending and a maintained level of revenue outlay on much the same pattern as that described in Figure 6. But in reality between 1976 and 1977 capital devoted to mental illness services did not increase as a proportion of HPSS capital spent. On the revenue side that which went to mental illness fell as a proportion of total outlay. Figure 6 shows disturbing trends in the local authority sector.

**Figure 5** *Projected trends in HPSS capital spending by client group 1976–77 to 1981–82*




*Source* DHSS.

**Figure 6** *Social Services capital spending requiring loan sanction expressed in constant 1970 prices. Selected areas 1970–71 to 1977–78. England*




*Note* Sites, equipment and other capital costs not requiring loan sanction fell from £18.3 million in 1973–74 to £6.7 million in 1977–78 (1970 constant prices).

A third point is that the rate of progress envisaged in current plans is very slow. The 1975 White Paper stated that over 60 local authorities lacked either day care and/or hostel accommodation for mentally ill people. Even today the estimated number of such places in each category in England is around 6,000 as compared to estimated eventual requirements of about 12,000 residential and 30,000 day care places.[12] At present projected rates of investment (intended to yield 350 hostel and about 1,200 day care places annually) target figures will not be reached until the latter half of the 1990s (DHSS 1976). And it is in any case uncertain how realistic these estimates are in terms of actual future consumer demand.

But most serious of all is the issue of liaison and cooperation between agencies like the NHS, local authority social service departments, social security offices and the employment services provided under the Manpower Services Commission. Between the first two, some effort has been made at an organisational level to integrate planning, both through the institutions created in the 1974 reorganisations and by the subsequently introduced joint funding arrangements. But, as is argued later in this paper, the philosophy underlying the provision of employment services in Britain is questionable in the context of people suffering from schizophrenia whilst the effort needed to obtain financial support from social security offices may sometimes be beyond the capabilities of individuals whose powers of concentration and resistance to personal intrusions have been limited by this form of mental illness.

Furthermore the pattern of professional authority and expectations which exists in the fields of psychiatric and social care is such that the future emergence of genuinely more integrated services is not entirely certain. Groups like psychiatric nurses and social workers may resist a blending of their skills and the breakdown of demarcations between hospital and 'community' work. Uncertainties over career prospects could be one reason for this. Amongst psychiatrists, who since the formation of independent social service departments have tended to have been restricted to work inside NHS facilities, fears of loss of medical authority could to an extent inhibit efforts to compromise with and work alongside other professional groups (Bennet 1978).

Such pressures may mean that factors like a lack of adequate

12 Overall the need for longer-stay local authority places of all types, including facilities like supervised lodgings, may prove to be rather higher. There were at the start of 1979 still 11 authorities without any direct residential provision for the mentally ill and 36 without day centres. Only 31 have reached minimum DHSS standards with regard to residential provision and only 3 have done so in respect to day care.

record linkages will continue to hinder the development of mental health care. However, the picture is not entirely negative. For example, there are today some 1,500 qualified community psychiatric nurses working in the NHS. There seems little doubt that the development of such specialisms can contribute much to the emergence of genuinely effective after care services for people who have had schizophrenia and who subsequently suffer long-term limitations or are at risk of another acute episode (Hunter 1978). And the few localities where teams combining psychiatric, nursing and social work skills are available for rapid intervention in cases of sudden emergency related to mental disturbance provide an illustration of the means by which handicapping effects of schizophrenia may be prevented at an early stage (Rees 1979).

Adequate knowledge may not only ensure that medical treatment is initiated promptly. Measures can also be taken to avoid the emergence of social phenomena like the inappropriate labelling or stereotyping of distressed individuals as permanently handicapped. Although reformers like those who created the 1959 Mental Health Act envisaged a key role for general medical practitioners in this context it is generally accepted that the complexity of the issues surrounding schizophrenia is such that specialist community teams are needed.

# Issues for the future

In the overall field of disablement few people would deny that significant advances have been made since the passing of the Chronically Sick and Disabled Persons Act in 1970. In respect to people with limitations of intellect, normally referred to as 'mental handicap', there can be no doubt that public opinion is slowly becoming more informed and less hostile. In the area of physical disability new forms of financial support, growing media sympathy, more awareness of special needs in relation to essential activities like mobility and improved services generally have all started to emerge in the past decade. But regarding those with psychiatric disabilities and consequent social handicaps the attitudes of and forms of help offered by the community have not changed to such a marked degree.

The possible reasons for this lag are numerous. One factor is that it is even more difficult to measure and quantify objectively mental impairments such as those encountered in the schizophrenias than is so in the case of intellectual or physical limitation. Another is that in its very nature such illness undermines the sufferers' capacity for social interaction and so tends to cut him or her off from the sympathy of the surrounding community. And a

third is that the difficulty of defining comprehensively schizophrenic conditions may paradoxically result in well-meaning people denying that others suffer an unpleasant and potentially handicapping form of illness; in a way they can add to the latters' problems through attempts to accept their eccentric behaviour.

Phenomena of this last type are particularly apparent in relation to debates on whether or not 'society' has a right or duty to limit the freedom of mentally ill people with the intent of protecting either them or others. Clare (1978) has cogently argued that civilised societies must attempt to draw a line, difficult though it may be to establish, between those able to choose whether or not to commit unlawful or otherwise undesirable acts and those who by reason of mental disorder must be considered unable so to do in meaningful sense of the word 'choice'.

But MIND has pointed out that individuals diagnosed as mentally ill may as a result of medical or related legal controls be deprived of the civil rights enjoyed by other members of the population. Few people would go as far as authorities like Thomas Szasz who advocate that everybody, whatever their mental state, should be subject to the same legal controls and enjoy the same freedoms. Yet many do feel concern regarding the possibility that some mentally disturbed people are compulsorily detained for behaviour which would stimulate little comment if displayed by individuals not bearing a psychiatric diagnosis.

The possible ramifications of this debate are extremely extensive. At present the main focuses of attention are on the reform of the admission and detention procedures provided for in the 1959 Mental Health Act and the development of Regional Secure Units. The latter are intended to allow the management of patients said to be difficult for normal hospitals to manage but not in need of the type of high security available in the Special Hospitals like Broadmoor. Linked with this is the long-standing problem of mentally ill people in prisons, who may on the one hand be living in anti-therapeutic conditions but on the other cannot be found places in health service facilities.

These issues are complex[13] and are not examined in detail in this paper. However, in specific relation to schizophrenia two

13 See, for example, Orr (1978) on the imprisonment of mentally disturbed offenders and Bluglass (1978) on the development of Regional Secure Units. The problems encountered in the latter area may be used to illustrate the difficulty that central government has in ensuring that RHAS and local NHS administrators comply with the national policy decisions even when special funding is made available. Also the influence of sectional interest groups including the trade unions and 'spontaneous' local protest organisations has proved powerful in this context. If press and allied reporting on mental health issues is genuinely to contribute to public understanding it may be in this type of area that 'in depth' studies could prove worthwhile.

points are worth stressing. First, it is inherently likely that mental illness of this type will decrease an affected individual's social competence, his or her ability to live at a normal level of independence in a community and within that communitys' laws and informal regulations. Where protective or supportive care is only available to a limited degree the risk of people with schizophrenic illness committing an imprisonable offence is consequently raised. The degree to which this is so depends on the level of tolerance within society and the flexibility of the medico-legal system (Tidmarsh 1978).

As long ago as the 1930s Penrose surveyed the relationship between prison, mental illness and mental handicap populations in a series of European countries (Penrose 1939). He concluded: 'there is a definite incompatibility between the development of mental health services and the need for accommodation in prisons'. Modern replications of this work might help to provide some measures of the success or failure of Britain's new policies in psychiatric care. However, it may also be added that the Royal College of Psychiatrists has recently described the separation between the prison medical service and the NHS as anachronistic and has called for their integration. This is in part because the Royal College believes that doctors working in isolation in prisons may sometimes be subject to pressures which, in the eyes of medical colleagues, could distort clinical judgement.

Second, although 'civil rights' and allied matters are obviously of importance in the field of mental health care it is likely to be counterproductive to concentrate exclusively or even mainly on such topics. Obviously it is disturbing that mental illness patients are not yet free as of right to receive in or send out from hospitals mail without it being subject to official control. More seriously, perhaps, the 1978 White Paper on the reform of the 1959 Act makes no move to restrict the Home Secretary's power to hold mentally abnormal offenders in special hospitals indefinitely, regardless of the nature of their violation of the law. And currently proposed patients' advisor schemes are much weaker than reformers had hoped, apparently because of the influence of medical and nursing interests.

But against concerns like these it should be noted that nearly 90 per cent of all mental illness admissions are voluntary. A strong case can be put to the effect that it is the quality and quantity of medical and social care available, not the legal controls surrounding this small proportion of admissions, which are the key issues of the day (Jones 1978). If psychiatric disablement is to become understood by the general public in the same way that physical limitations and to an increasing extent intellectual retardation now are then perhaps more effort should be devoted

to communicating the positive needs for care and help of people with conditions like schizophrenia. In Britain today it may well be the shortage of all types of caring resources, not the danger of wrongful detention in a hospital, which the public needs to be made most aware of.

## The economics of care and rehabilitation

The available data suggest that the total cost to the UK NHS and social services of treating and caring for people with schizophrenia was in the order of £200 million in 1978 (OHE estimate). Lost earnings and kindred costs incurred by patients themselves and their relatives are very difficult to identify accurately, especially in a time of high unemployment. But conservatively this figure can be put at an at least equivalent level to the direct care outlay involved. This means that the overall economic loss imposed on the community by schizophrenic illness was over £400 million in 1978, about twice that attributable to more frequently publicised conditions like back-pain. These calculations are in line with epidemiological investigations showing the schizophrenias to be the most prevalent seriously disabling group of conditions amongst people of working age.

There are two ways in which this heavy burden on the community can be minimised. First, by ensuring that medical treatment and social support is delivered in a cost effective manner. Second, by making every effort to see that people disabled by schizophrenia are provided with appropriate opportunities to gain productive employment. This is linked to the former goal in as much as it demands that rehabilitive care should be as efficient as possible. But on examination it also raises important questions about the use of labour in mixed economies like Britain. In essence these relate to whether the role of employment services is solely to 'lubricate' the working of the labour market in the traditional sense of exchanging information with the purpose of providing employers with the right type of workers or whether and to what extent the creation of the right type of job for people with special disabilities should be actively encouraged.

The latter approach entails regarding jobs as in part commodities or services produced for groups of disabled consumers as well as the means of producing valuable goods and services. Some recent policy initiatives may be thought consistent with this approach. Yet on the whole employment rehabilitation services in Britain act only in a conventional role, the number of sheltered work places provided being very small indeed. Authorities like Morgan and Cheadle (1975) have shown successful work rehabilitation rates for schizophrenic subjects to be inversely related to the general unemployment rate, a clear indicator of the

lack of special protection. Wing (1978a) has noted the considerable advantages for schizophrenic patients of some aspects of employment provision for the mentally ill in the USSR where there is a greater facility for direct job creation associated with the medically controlled rehabilitation services.

However, should such policies become widely advocated in Britain they may raise a number of potentially sensitive political questions (Taylor 1979b). And the possibilities for change in the present divided pattern of part medically supervised NHS and part Employment Services Division provided rehabilitative care and training are also limited by sectional professional and civil service interests. Thus all that can be said at present is that neither side appears to be meeting the needs of psychiatrically disabled patients optimally (see Morgan 1976, Sedgwick 1977, PRA 1977) although a NACEDP report on how services might be improved is expected soon. The straight line, gradual learning 'curve' of people with schizophrenia and their special vulnerability to intrusive behaviour as well as environmental understimulation are examples of factors which should be taken into account (Wing *et al* 1964, 1972). Yet it must also be stressed that many less badly affected or better informed and motivated schizophrenic subjects can and do hold down employment in the open market despite the occasional recurrence of symptoms.

Turning briefly to the possibility of cost reductions in the NHS and social services a key area where savings may be generated is in further reductions in the length of hospital stays. Studies in both Britain and America may indicate that provided adequate support services are available brief admissions of only nine days median length (around a quarter of the current duration) are sufficient to give good recovery rates at no raised cost to patients or their families (Hirsch *et al* 1979, Herz *et al* 1977). Indeed, work rehabilitation rates appear to be improved although it should not be assumed that populations of schizophrenics are homogenous. Different samples might give different results.

Also OHE (1977) has pointed out that, in relation to services for physically disabled people, the process of transition from a pattern of large institution based support to a more plural network of provisions is one which tends to demand temporary increases in both revenue and capital outlay. Well before savings can be reaped from reductions in the old type of care new facilities have to be made available. It is thus in the short-term unlikely that hospital stay durations in many localities can be significantly decreased without lowering standards of patient care. Adequate alternative support facilities do not yet exist.

In relation to this point, it should also be stressed that crude estimates of the savings to be made by initiatives like reductions

in the length of stay can be misleading. In fact the unit costs of adequate 'community' care may well approach those of a hospital place. This is particularly apparent if marginal rather than average expenses are compared. The cost of one extra person attending facilities like a day hospital can sometimes exceed that of one extra person entering or staying in a part empty hospital, particularly if travel expenses are accounted in.

Although in the future there is some hope that preventive measures for those at special risk of developing schizophrenia will be developed (WHO 1975), perhaps opening the way to significant cost savings, the reality is that at present all forms of care involve high ratios of service-providing-people to service-receiving-people and thus have high unit costs. There is only one field where treatment can be extended indefinitely at little expense. That is the use of pharmaceutical products which have low marginal costs of production relative to the fixed costs involved in their development, manufacture and market distribution.[14]

## The role of medicines

Of the £200 million spent on services for schizophrenic patients in 1978 about £7.5 million, a little under 4 per cent, went on major tranquillisers ('neuroleptics'). This cost was divided roughly half and half between those taken orally and injectable long-acting preparations. Even allowing for the expense of other medicines which might be used in the direct or indirect context of schizophrenic patients less than one pound in every twenty spent by the health and personal social services in this sphere went on pharmaceuticals. This surprisingly low proportion may be used as evidence to support the view that the limitations to the use of currently available medicaments (see Table 4) in the treatment of schizophrenia are not essentially economic. Rather they relate to the balance between risk and experienced benefit in their consumption.

There can be no doubt that side effects like tardive dyskinesia, a sometimes permanent affliction characterised by involuntary movements of the neck and lower face muscles, can be very undesirable. Also used inappropriately and/or in excessive amounts major tranquillisers can dull the senses of already withdrawn and understimulated schizophrenic individuals. Even

14 This remark is predicated on the belief that the Pharmaceutical Price Regulation Scheme works in such a way as to ensure that purchases made by the NHS at the margins of its consumption cause centrally incurred costs to rise at a rate nearer to the marginal than the average cost of most established medicines' production. In many instances this is the case even though the experience of local budget holders within the NHS will not reflect this fact.

**Table 4** *The main groups of neuroleptics used in the treatment of schizophrenia. (These medicines may also be referred to as major tranquilisers, antipsychotics or ataractics)*

| Group | Examples | Comments |
|---|---|---|
| Butyrophenones and related compounds | Haloperidol<br>pimozide | The action and side effects of this group are similar to those of the piperazine phenothiazines. Pimozide in particular has been promoted for its stimulating effects and is said to be useful for alleviating stereotyped symptoms. |
| Phenothiazines | | |
| a) With a dimethylaminopropyl side chain (sometimes referred to as the aliphatic series) | Chlorpromazine<br>fluopromazine | These have marked sedative effects and may be used to help relieve agitated disturbance. |
| b) With a piperidine side chain | Pericyazine<br>thioridazine | This group of drugs is less likely than other neuroleptics to cause extrapyramidal side effects like involuntary movements. |
| c) With a piperazine side chain | Fluphenazine<br>perphenazine | More stimulating in their action than other phenothiazines. Long-acting products in this group helped to revolutionise aspects of drug therapy in the community. |
| Rauwolfia alkaloids and benzoquinalozones | Reserpine | Now very little used because of the time they take to act and the risk of inducing depression. |
| Thioxanthenes | Chlorprothixene<br>flupenthixol | These provide a series parallel to the phenothiazines. Flupenthixol has antidepressant properties. |

those who recognise their benefits report disturbing, dulling sensations caused by antipsychotic medicines (Wing 1975).

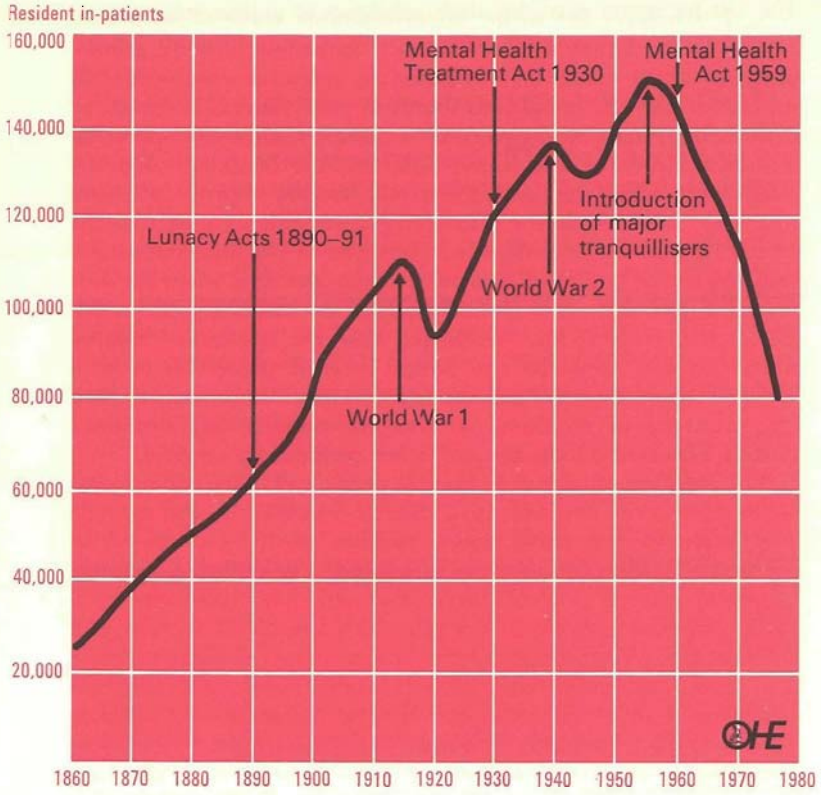
However, in balance there is strong evidence that the major tranquillisers protect many people who are at risk of acute schizophrenic illness from experiencing distressing relapses. One way of understanding their action is that if schizophrenia is seen as a special vulnerability to too much or too little stimulation then major tranquillisers limit excessive arousal (Wing *et al* 1973). If misused then they can serve simply as modern-day equivalents of the chains used to restrain mad (or sane) men in the worst Victorian asylums. But potentially at least they offer people with this type of disability the opportunity to experience a relatively active life with a degree of confidence which would not otherwise be possible. Hence they may avoid social handicaps in their own eyes and those of their acquaintances.

To commentators who see conditions like schizophrenia as purely symptoms of a sick or sickening society this explanation of the role of medicines may be unacceptable, whatever the empirical evidence in its favour. But to observers who accept that the aetiology of schizophrenic illness is probably in most cases multifactorial it offers an interesting and plausible example of the impairment-disability-handicap chain applied to psychiatric disablement. And an examination of the past impact of the current generation of neuroleptics on patterns of care also suggests a number of exciting opportunities regarding the future role of new pharmaceutical products in this field.

Figure 7 shows that the start of the decline of the mental illness hospitals' population in England was closely associated with the introduction of major tranquillisers. Other factors, like economic pressures on the NHS and the effect that wartime experiences had on attitudes to mental illness, were very important. But the close conjunction of the availability of the major tranquillisers and falls in the numbers of people in hospital both in this country and abroad is reasonably firm evidence in favour of the hypothesis that medicines were of considerable significance around the start of this transition from closed to open care. It may be that in less progressive environments especially they helped to change attitudes as well as to alleviate symptoms.

In the future the existence of more effective medicines may help to remove further prejudice against and misunderstanding of mentally distressed and disabled people. Ideally they will be sufficiently specific to remove the need for other forms of psychiatric or social support completely, as pioneers in the field of mental health like Sigmund Freud hoped would eventually be possible. But even if this goal proves elusive better medicines should still serve to reduce the costs of care and/or ensure that the oppor-

**Figure 7** *In-patients resident in mental illness hospitals, England and Wales 1860–1978*




tunities for successful social interventions are increased. No other field of research relevant to schizophrenia holds out the prospect of economic and social cost benefit returns equivalent to those likely to be generated by a fuller understanding of the biochemistry of the condition(s).

# Conclusions

The advent of new medicines and patterns of care and rehabilitation in the early 1950s led to a realisation that for many people the long-term effects of schizophrenia need not be as severe or as enduring as was once, and sometimes still is, feared. Today in the order of half those diagnosed as suffering from schizophrenia recover. This is a dramatic and encouraging contrast to the days

of only 40–50 years ago when entry into a mental hospital with such illness usually led to long-term incarceration in an institutional environment likely to prove positively anti-therapeutic.

Such advances led to an understandable wave of optimism. Some observers may have even come to believe that all schizophrenic illness could be attributed to negative environmental influences like the conditions found in poor mental hospitals or disturbed families. And government planners, although operating within a more realistic framework, became confident that the outlook regarding the condition would steadily improve. It seems probable that one factor underlying their calculations was the steady flow of new neuroleptics introduced by the pharmaceutical industry in the late 1950s and early 1960s, the time when the outline of a new pattern of mental health care was being prepared. The 1962 Hospital Plan envisaged that the traditional mental illness asylums could be run down. In their place was to be a diffused, open system of general hospital psychiatric units backed by an array of facilities like hospital-hostels, day hospitals, hostels, supervised lodgings and other community services.

The creation of such a pattern of psychiatric care still appears to be a generally desirable goal. But in retrospect it also appears that some of the early 1960s enthusiasms which existed in relation to schizophrenia were misplaced. For example, extreme uni-polar models of this illness may sometimes have served to limit cooperation between the post-Seebohm social services and the NHS. It is a disturbing fact that many social workers trained in the 1960s and early 1970s were actually taught that medical treatment had no place in the care of schizophrenic subjects (Brown 1978). Similarly it is distressing that even today some psychiatrists have little awareness of the contributions that disciplines like psychology, sociology and epidemiology have to make.

The reality is that the basic mechanisms and causes of schizophrenic illness remain unknown. And although MRC-backed research in Britain has helped to determine the appropriate use of medicines and the types of social support most likely to prove beneficial there are still up to 100,000 individuals in this country who are significantly disabled by the condition whilst half as many again may suffer some symptoms. Many are as a result handicapped in their social lives. The present partly developed system of care frequently does not offer them and their families sufficient opportunities and facilities to live satisfactorily within their own set of desires and abilities. Failure to recognise the plight of these chronically distressed people has led some commentators to suggest bitterly that 'community care' has proved nothing more than a 'sociological conjuring trick' designed to hide rather than help the mentally ill. They emphasise the

continued need of a large number of people with schizophrenia for asylum in the sense of shelter and protection from some forms of social stress and competition. It is argued that if no genuine alternative is available then the 'run down' of the old mental illness hospitals system must be stopped and perhaps reversed.

Yet on close examination the plans of the DHSS and equivalent agencies in other parts of the UK seem to be based on firmer ground than is sometimes suggested. National programmes, as presented in the 1976 HPSS priorities document and the subsequent 'Way Forward', tend to gloss over the weakness of much of the data on which they are based and may fail to reveal the full extent and significance of local variations from national objectives. But there can be no doubt that they are grounded on informed and fundamentally humane premises. The main danger seems to be that disillusion and discontent amongst working groups and consumers could prevent them coming to fruition in the future.

One possible hazard is that sectional pressure groups within the overall population of mental illness service consumers will emerge and use pressure group tactics to advocate developments which may disbenefit others. Consequent political pressures could create imbalances in mental health planning, particularly if media influences begin to swing public opinion away from the idea of a more open system of support. Shocking stories about inadequate care 'in the community' could increasingly replace those about inadequate care in hospitals.

This analysis suggests that there is now a clear need for specific interim policies designed to ensure that care standards for people suffering long-term schizophrenic symptoms are maintained during the process of transition going on in psychiatric care generally. Failure to maintain the morale of those providing services and the confidence of consumers could lead to a crisis in some ways parallel to that which recently threatened the nation's vaccination programme. The latter could conceivably have been predicted and avoided (OHE 1974).

An example of an appropriate initiative might be the formation of a body equivalent to the national development group for the mentally handicapped to monitor and advise on the care of those suffering long-term psychiatric disablement (National Schizophrenia Fellowship 1977).[15] Another might centre on measures

15 Brown (1973) reviewed the social organisation of care facilities for chronically disabled psychiatric patients. His conclusions regarding the management structures and procedures needed to protect care standards are strikingly similar to the measures advocated more recently in the field of severe mental handicap.

designed to involve voluntary groups like the National Schizophrenia Fellowship more in care planning and provision. Projects like the 'Crossroads Care Attendance Scheme' could perhaps be appropriate in some instances, although the special needs of the client groups concerned would have to carefully be considered.

A third possibly suitable area for national and local initiatives is that of gathering fresh information on the living conditions and present needs of chronically mentally ill people living alone or with their relatives. Surveys like that of the OPCS work on physical disablement may be methodologically difficult in relation to psychiatric conditions but the problems should not prove insuperable.

To sum up it would therefore seem that although ultimate solutions to the social and economic difficulties created by severe types of schizophrenia may in the perhaps not too distant future come from biochemists and other scientists working in academic and pharmaceutical industry laboratories immediately forseeable advances rest on a more effective combination of social support and existing medical treatment. In Britain the long-term plans of the NHS and social services are likely in theory to achieve this goal. But the problems of resource shortages and low morale currently being encountered to reduce their practical chance of success. Official acceptance of this fact and recognition of the need to co-ordinate 'care transition' in mental illness more effectively seems lacking. This is perhaps due to fears that any form of action will further stimulate demands for services. Thus whether the current situation will prove to be the start of a disappointing reaction to the perhaps over-optimistic hopes of the 1950s and early 1960s which will usher in a new period of negativism in the treatment of conditions like schizophrenia or whether it is merely a pause in the continuous process of service planning and goal redefinition is at present an open question.

# References


Apte R Z (1968). Halfway Houses: A New Dilemma in Institutional Care. Occasional Papers on Social Administration, No 27. Bell, London.

Astrup C, Odegäärd O (1960). *Psychiat Quart*, 34, Supplement p 116.

Baker A A (1961). *Lancet*, 2, 656–57.

Bateson G, Jackson D, Haley J and Weakland J (1956). *Behavioural Science*, 1, 251.

Bennet D (1978). *Brit J of Psychiat*, 132, 209–20.

*Better Services for the Mentally Ill* (1975). Cmnd 6233.

Bland R C, Parker J H, Orn H (1978). *Arch of Gen Psychiat*, 35, 72.

Bleuler M (1972). Die Schizophrenen Geistesstorungen im Lichte langjahriger kranken und Familiengeschichten. Thieme, Stuttgart.

Böök J A (1953). *Acta genet* (Basel), 4, 1.

Bluglass R (1978). *Brit Med J*, 1, 489.

Brown G W, Monck E M, Carstairs G M and Wing J K (1962). *Brit J of Prev and Soc Med*, 16, 55.

Brown G W, Bone M, Dalison B and Wing J K (1966). Schizophrenia and Social Care. OUP, London.

Brown G W, Birley J L T and Wing J K (1972). *Brit J of Psychiat*, 121, 241–58.

Brown G W (1973). Personal communication.

Cheadle A J, Freeman H L and Korer J (1978). *Brit J of Psychiat*. 132, 221–27.

Clare A W (1974). *Irish Med Ass*, 67, 20–24.

Clare A W (1976). Psychiatry in Dissent. Tavistock, London.

Clare A W (1978). *Lancet*, 1, 1197–98.

Clarke M (1976). *New Society*, 37, 234.

Cohen S M, Allen M G, Pollin W, Hruber Z (1972). *Arch of Gen Psychiat*, 26, 539.

Comfort A (1977). Lancet, 11, 448.

Cooper J E, Kendall R E, Harland B J, Sharpe L, Copeland J R M and Simon R J (1972). Psychiatric Diagnosis in New York and London: A comparative study of mental hospital admissions. OUP, London.

Creer C and Wing J K (1974). Schizophrenia at Home. Institute of Psychiatry, London.

Crow T J (1978). *Brit J of Hosp Med*, 20, 5, 532–44.

DHSS (1976). Priorities for Health and Personal Social Services in England. HMSO, London.

DHSS (1977). The Way Forward. HMSO, London.

Dunham H W (1965). Community and Schizophrenia: An Epidemiological Analysis. Wayne State University Press, Detroit.

Early D F (1975). Schizophrenia in the community. In Studies of Schizophrenia (Ed Lader) *Brit J of Psychiat*, special publication 10.

Etinger L, Laane C L, Langfeldt G (1958). *Acta psych et neurolog Scand*, 33, 33.

Faris R E L and Dunham H W (1939). Mental Disorders in Urban Areas. Hafner, Chicago.

Fish F J (1976). Fish's Schizophrenia, 2nd ed (Ed Hamilton). John Wright, Bristol.

Freeman H (1976). *Int J of Ment Health*, 5, 3, pp 3–13.

Goffman E (1961). Asylums. Essays on the Social Situation of Mental Patients. Anchor, New York.

Goldberg E M and Morrison S L (1963). *Brit J of Psychiat*, 109, 785–802.

Goldberg S C, Schoder N R, Hogarty G E and Roper M (1977). *Arch of Gen Psychiat*, 34, 2, pp 171–84.

Hamilton M (1978). *Brit J of Hosp Med*, 20, 5, p 545–48.

Hare E H (1956). *J Ment Sci*, 102, 349.

Hare E H and Walker S D (1978). *Brit J of Epidem and Com Health*, 32, 1, pp 47–52.

Hertz M I, Endicott J and Spitzer K L (1977). *American J of Psychiat*, 134, 502.

Hewett S and Ryan P (1975). *Brit J of Hosp Med*, 14, 1, pp 65–70.

Hirsch S R, and Leff J P (1975). Abnormality in Parents of Schizophrenics. OUP, London.

Hirsch S R, Platts, Knights A, Weyman A (1979). *Brit Med Journ*, 1, pp 442–46.

Hollingshead A B and Redlich F C (1958). Social Class and Mental Illness. Wiley, New York.

Hunter P (1978). Schizophrenia and Community and Psychiatric Nursing. National Schizophrenic Fellowship, Surbiton.

Iverson L L (1977). *Proc of Roy Soc Med*, 70, Supplement 10, pp 1–13.

Iverson L L (1979). Personal communication.

Jones K (1978). Personal communication.

Kay D W K and Roth M (1961). *Journ of Mental Sci*, 100, 990.

Laing R D (1959). The Divided Self. Penguin, Harmondsworth.

Laing R D and Esterson A (1964). Sanity Madness and the Family. Penguin, Harmondsworth.

Laing R D (1978). Personal communication.

Lidz T, Fleck S and Cornelison A R (1965). Schizophrenia and the Family. IUP, New York.

McKeown T (1958). *Lancet*, 1, 701–04.

Mechanic D (1970). In 'An International Symposium on Psychiatric Epidmiology' (Eds Hare and Wing). Nuffield Provincial Hospitals Trust and OUP, Oxford.

Morgan R and Cheadle A J (1975). *Soc Psy*, 10, pp 63–67.

Morgan R (1976). Address to a symposium in Exeter. National Schizophrenia Fellowship, Surbiton.

National Schizophrenia Fellowship (1977). Memorandum to the Royal Commission on the NHS.

OHE (1974). Vaccination. OHE, London.

OHE (1977). Physical impairment: Social handicap. OHE, London.

Orr J H (1978). *Brit Journ of Psychiat*, 133, 194.

Penrose LS (1939). *Brit Journ of Med Psych*, 181, pp 1–15.

Professional Staff of the US-UK Cross National Project (1974). *Schizophrenia Bulletin* (Experimental Issue 11).

Psychiatric Rehabilitation Association (1977). Not the Same as You? PRA, London.

Querido A (1955). *Proc of Roy Soc Med*, 48, 741–44.

Rees W L (1979). Address to the All Party Parliamentary Mental Health Group.

*Report of the Professional Investigation into Medical and Nursing Practice on certain wards at Napsbury Hospital* (1973). HMSO, London.

*Review of the Mental Health Act 1959* (1978). Cmnd 7320.
Rosenhan (1973). *Science*, 179, 250–58.
Rosenthal D and Kety S S (1966). The Transmission of Schizophrenia. Pergamon, London.
Sartorius N, Shapiro R and Jablensky A (1974). *Schizophrenia Bulletin* (Experimental Issue 11).
Sartorius N, Jablensky A and Shapiro R (1977). *Psych Med*, 7, 529.
Scheff T J (1963). *Sociometry*, 26, 436–53.
Schneider K (1959). Clinical Psychopathology (5th ed trans Hamilton M). Grune and Stratton, New York.
Segwick P (1977). St Wulstans and the Battle for Rehabilitation. National Schizophrenia Fellowship, Surbiton.
Spitzer R L, Endicott J, Cohen J and Fleiss J L (1974). *Arch Of Gen Psychiat*, 31, pp 197–203.
Szasz T S (1962). The Myth of Mental Illness. Secker and Warburg, London.
Tarrier N, Vaughn C, Lader M H and Leff J P (1978). *Arch of Gen Psychiat.*
Taylor D G (1979a). Changing Patterns of Disability. In 'Medicines for the Year 2000' (Eds N E J Wells and G Teeling-Smith). OHE in press.
Taylor D G (1979b). The Economics of Rehabilitation. In press.
Tidmarsh D, Wood S and Wing J K (1972). Summary of Research Findings and Recommendations. Institute of Psychiatry.
Tidmarsh D (1972). Psychiatric Disorder in a Population of Homeless Destitute Medn. MD Thesis.
Tidmarsh D (1978). Personal communication.
Tooth G C and Brooke E M (1961). *Lancet*, 1, 710–13.
Vaughn C E and Leff J P (1976). *Brit J Clin Soc Psychol*, 15, pp 157–65.
Walsh D (1971). *Brit J of Psychiat*, 118, 617.
WHO (1953). Expert Committee on Mental Health – 3rd Report. *WHO Tech Rep Series 73.*
WHO (1973). The International Pilot Study of Schizophrenia. WHO, Geneva.
WHO (1975). Primary Prevention of Schizophrenia in High-Risk Groups. WHO, Copenhagen.
Wing J K, Bennet D H and Denham J (1964). MRC Memo No 42. HMSO, London.
Wing J K, Birley J L T, Cooper J E, Graham P and Isaacs A (1967). *Brit J of Psychiat*, 113, 499.
Wing J K and Brown G W (1976). Institutionalism and Schizophrenia. Cambridge University Press, London.
Wing J K, Leff J P and Hirsh S R (1973). In 'Phsychopathology and Psychopharmacology' (Eds Cole, Freedman and Friedhoff). Johns Hopkins University Press, Baltimore.
Wing J K (Ed). Schizophrenia from Within. National Schizophrenia Fellowship, Surbiton.
Wing J K (1978a). Reasoning about Madness. OUP, Oxford.
Wing J K (1978b). Schizophrenia and its Management in the Community. National Schizophrenia Fellowship, Surbiton.
Wood P H N (1975). Document presented at the WHO internal conference for the ninth revision of the international classification of disease.
Wodd P H N and Badley E M (1978). *Int Rehab Med*, 1, 1, 32–37.
Wynne L C and Singer M T (1963). *Arch of Gen Psychiat*, 9, 199–206.