SOCIAL CLASS AND PROGNOSIS IN SCHIZOPHRENIA. PART I

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Three main theories have been advanced to explain the social class gradient in schizophrenia:

1. That persons who develop schizophrenic illness have suffered from some pre-psychotic abnormality or inadequacy of personality which has resulted in their taking progressively less responsible and remunerative jobs and so sinking in the social scale before the onset of frank psychotic symptoms.

2. That advanced by Hollingshead and Redlich (1958) that the findings are due to the less prompt and adequate treatment and rehabilitation of patients from the lower social groups.

3. That persons in the lower social groups are subjected to greater social and economic stress, and that this stress is causally related to schizophrenic illness.

If the "drift" theory as originally postulated is correct, one would expect a number of concomitant findings. First, schizophrenic patients would be found to have descended the social scale before the onset of their psychosis, to be more "socially mobile" than average. Secondly, associated with this, they would be geographically more mobile, tending to move residence and place of work periodically in their downward drift. Thirdly, if the individual's social decline is due to his own inadequacy rather than to external factors, one would expect to find the social class level of any large group of schizophrenic patients lower than that of their parents.

Hollingshead and Redlich found that the patients of lower social class in their investigation were not more "geographically transient" than the others; indeed, a higher percentage of their Class V cases than of their Class I and II cases had been life-long residents of the community. Furthermore, most of the Class I and II patients had lived in the better residential areas, and most of the Class V patients in the slum areas, all their lives. They concluded that there was no significant evidence of a drift to the slums with the onset of schizophrenia.

Similarly, Lapouse, Monk, and Terris (1956), from a survey of 587 schizophrenic patients in New York, concluded that their concentration in low economic areas was not the result of downward drift, nor of recent migration into these areas of socially mobile men living alone.

On the other hand, work in progress in Great Britain (Morrison, 1959) suggests that there is a random social class distribution among the fathers of male schizophrenic patients, despite the excess of lower social class individuals among these patients. Morrison and his colleagues believe that, while there is no individual downward drift in schizophrenia, there may be a downward drift from one generation to another, due to genetic factors and to environmental influences operating in childhood, such as broken homes and maternal deprivation. These results, if verified, contradict those of Hollingshead and Redlich; whether they represent a real difference in incidence between Great Britain and the United States is not clear. Harris, Linker, Norris, and Shepherd (1956) found a significant fall in social class in one generation only for patients whose fathers were in Social Class I or II.

The second theory suggests that the incidence of schizophrenia is not in fact higher in the lower social grades, but that persons in these grades who develop a schizophrenic illness are less likely to have prompt and effective treatment; in consequence they do not make so good or permanent a recovery, and are more likely to go on to develop a chronic illness, thus producing a higher prevalence of schizophrenia among the lower social grades.
Hollingshead and Redlich elicited a good deal of evidence to show that this hypothesis was true in the community studied by them. Their findings may be summarized briefly as follows:

(a) Higher social class patients are usually treated by private practitioners or in private hospitals, lower class in state hospitals. This applies to schizophrenics as to other categories.

(b) Higher social class patients are much more likely to receive psychotherapy; lower social class patients are rather more likely to receive organic therapy, but a high proportion receive only custodial care.

(c) Lower social class patients are more likely to remain continuously in mental hospitals for long periods.

These findings may not, however, apply in Great Britain, where the pattern of psychiatric treatment is different. Under the National Health Service, free treatment is available to all, and the great majority of psychiatric cases are so treated; particularly in the case of schizophrenia only a small minority of patients are dealt with by private practitioners. Secondly, the use of psychotherapy for psychotic states is less in vogue here than in the United States, and differences in the social class distribution of this mode of treatment are therefore less probable.

Thirdly, the average patient in an English mental hospital is less likely to be isolated from his own community than one in a large American state hospital, and there may not be the same tendency for chronicity to develop more readily in a state hospital than in a private institution (Pratt, 1948).

Even if significant differences do exist in the standard of treatment for the different social classes, this cannot wholly explain the social class gradient. Assuming that some approximation to the true incidence of schizophrenia can be obtained from hospital first-admission rates (the only reliable data at present available), any bias produced by differences in treatment must occur before the patient’s first admission to hospital; in view of the fact that in-patient treatment has been orthodox to all cases of early schizophrenia, at least until the last few years, this seems highly improbable.

Investigations based on first-admission rates confirm the social class gradient (Brooke, 1959a; Stein, 1957; Registrar General, 1958). Brooke (1959b) has pointed out that mental hospital statistics can give only a rough approximation to the true incidence of mental illness in a population, and that for any individual patient a first admission to a mental hospital may not correspond with the first episode of mental illness. Nevertheless, first-admission rates remain the best available gauge for measuring the incidence of psychotic illness and provide perhaps the best arbitrary criterion for a “case” of schizophrenia (Milbank, 1953; Dunham, 1953). It seems reasonable to assume, therefore, that there is a true social class gradient in the incidence of schizophrenia, and that this cannot be explained by differences in treatment of the illness after diagnosis.

The third theory, that the social class gradient in schizophrenia reflects the varying stress of social and economic conditions in the community, is in some ways the most satisfactory. It offers analogy with the distribution of other diseases, such as pulmonary tuberculosis, chronic bronchitis, and rheumatic heart disease (Registrar General, 1954), where aetiological factors are better established. It does not require any proof of “drift”, social mobility, or bias in treatment. It is compatible with the findings of Hollingshead and Redlich, that the incidence among persons born in slum areas is higher than in those born in good areas.

On the other hand, Hare’s survey in Bristol (Hare, 1956a, b) suggested that the distribution of schizophrenics in that city could be correlated not entirely with social class distribution, but with the number of persons living alone in each district. This is the concept of “social isolation”, and there exists a considerable body of evidence for the importance of this factor (Gerard and Houston, 1953; Hare, 1956a, b; Stein, 1957).

A study of the subsequent outcome of schizophrenic psychosis in the different social classes might well throw more light on the theories of causation. It seems likely that the same social and economic factors which may be implicated in producing the disease, may also have a role in its later development. Downward social and occupational drift might be seen to continue after discharge from hospital, and on subsequent readmissions; differences in management and treatment might result in an increased proportion of prolonged stay in hospital among lower class patients; social isolation might lead to failure of rehabilitation and a higher relapse rate among patients discharged to such conditions.

Once again the study of Hollingshead and Redlich seems the most comprehensive; yet again it is doubtful if their conclusions can be applied to conditions in Great Britain. They found that lower class patients had on average a longer continuous duration of stay, a longer period of psychiatric treatment, and a higher rate of re-entry into treatment. However, as has been mentioned, these differences are at least in part explicable by a bias in treatment—or lack of treatment—administered, and may not obtain in Great
Britain. Moreover, the categories of social class employed by Hollingshead and Redlich are not strictly comparable with the classification used in most British investigations (General Register Office, 1951). They used an "Index of Social Position", derived partly from an occupational scale, but also in part from a residential scale based on the type of district in which the patient lived, and in part from an educational scale. The "Index of Social Position" may yield results rather different from those obtained with the Registrar General's classification, e.g. it may produce findings weighted more in favour of social isolation, and less related to occupational status.

In Great Britain, Carstairs, Tonge, O'Connor, and Barber (1955) carried out a census of all patients resident in four London mental hospitals on a day in 1954. They found a social class distribution for schizophrenia comparable to the results obtained by other workers, but when the "long-stay" and "short-stay" patients (that is, those in hospital for more than and less than 2 years) were separated, the proportion of long-stay patients was found to be relatively higher in Social Class III, and the proportion of short-stay patients relatively higher in Social Classes IV and V. This suggests a correspondingly better prognosis for Class IV and V than for Class III, and is at variance with the American study.

More recently, however, Brooke (1959a) has investigated a much larger series consisting of all male schizophrenic patients over age 20 first admitted to English mental hospitals over a 6-month period. By analysing the number of these patients still in hospital at the end of each quarter for a total period of 2 years, she was able to demonstrate a clear social class gradient, for both single and married men, in terms of duration of hospital stay.

Wing, Denham, and Munro (1959), in comparing cohorts of schizophrenic patients discharged over two separate periods of time, noted that patients whose previous occupations had been unskilled did not carry a worse prognosis than others, in terms of duration of hospital stay. Moreover, the prognosis for unskilled labourers had improved significantly between 1950–1 and 1955–6.

Of other criteria of outcome, little is known. Harris and others (1956), in a follow-up survey of patients who had received insulin coma therapy at the Maudsley Hospital, found that over a 5-year period after discharge the majority of patients remained in the same social class as that to which they had belonged before admission—a finding which does not support the "drift" theory of schizophrenia. Markowe, Tonge, and Barber (1955), in a survey of psychiatric patients registered as disabled persons, concluded that successful rehabilitation largely turned on whether the individual had previously had a stable personality and a satisfactory work record; this survey was not limited to psychotic patients, and the patients' work records were not related to class status.

So far then, the available evidence is inconclusive and to some extent contradictory. In the present study an attempt is made to determine the relation between social class and the outcome of schizophrenia, by investigating a series of male first-admission cases.

**METHOD**

(1) A case was defined as "the first mental hospital admission of a male patient suffering from a schizophrenic illness". Cases were limited to those admitted to Bristol Mental Hospital (now Glenside and Barrow Hospitals) from 1949 to 1953 inclusive. This period was chosen for a number of reasons: it coincided with that used by Hare in his Bristol survey (Hare, 1955, 1956a, b); it centred in the 1951 Census; the psychiatric facilities in Bristol remained constant during that time; it allowed a 5-year follow-up for all patients from the date of first admission.

(2) The present series includes all cases from the Bristol area admitted to mental hospitals, except those which went to private mental hospitals outside the city, or to the one private nursing home which at that time dealt mainly with psychiatric cases. The number of cases thus missed could only be small. Hare (1955) attempted to trace all privately-treated cases, and of a total of 1,264 male cases of all diagnoses admitted during the relevant period, found only 32 privately treated.

(3) Diagnosis was obtained from the Mental Health Index Card file and was then checked with the patient's casenotes. The diagnostic categories used were based on those of the International Statistical Classification of Diseases, Injuries, and Causes of Death (World Health Organization, 1949).

The uncertainty of psychiatric diagnosis is one of the chief stumbling-blocks in all epidemiological research in this field. This is particularly true in the case of schizophrenic illness; the outer limits of the condition are ill-defined, and there appears to be little uniformity of diagnosis in different parts of the country, as shown for example by the Registrar General's regional figures.

In the present series every attempt was made to obtain as accurate a diagnosis as possible. Hare (1955) commented that the conditions obtaining in Bristol over the relevant period might be expected to lead to greater uniformity of diagnosis than in the country as a whole; the cases were diagnosed by a
group of psychiatrists working together in a single hospital with frequent opportunities for the interchange of clinical opinion. A review after an interval of from 5 to 10 years from the date of first admission threw a good deal of light on the patients' subsequent progress, and it seems reasonable to suppose that if a mistaken diagnosis had been made at the first admission, this would have become apparent during the subsequent progress of the illness, or at subsequent re-admissions to hospital.

To provide a check on the diagnosis obtained from a study of the case notes, in 48 cases of the present series (all patients discharged during the period 1953-7) a follow-up inquiry was made, including in each case a visit to the patient's place of residence, and whenever possible an interview with the patient himself. In addition, 36 patients currently under treatment were interviewed in hospital or at out-patient or follow-up clinics, in an attempt to confirm the stated diagnosis. In over 90 per cent. of the cases so interviewed and discussed with the consultant psychiatrists, the correct diagnosis could be ascertained by a perusal of the case notes.

The most difficult problem in diagnosis was that offered by the cases diagnosed as "paranoid state". The decision to include them as cases of schizophrenia in any survey must be somewhat arbitrary, since they represent a continuous gradation from undoubted paranoid schizophrenia to transient delusional states of good prognosis. In practice, no rigid rule was adopted, but the general principle accepted that the paranoid group of psychoses should be included in the main body of schizophrenia (Mayer-Gross, Slater, and Roth, 1954) and each case then considered according to the presenting clinical picture and later development of the illness.

(4) The patient's social class was determined in accordance with the Registrar General's "Classification of Occupations" (General Register Office, 1951), his occupation being recorded on the Mental Health Index Card, and on the first sheet of his case notes. A social worker's report was also included in the case notes in most cases; this was based on an interview with the patient's next-of-kin, either in the hospital or at home. A standard proforma was used, which included space for a brief account of the patient's work record.

From these three sources it was possible to ascertain the patient's previous occupation, and two further methods of checking were also used. First, the occupation listed could be compared, in most cases, with that obtained by Hare in his original survey. Secondly, in 84 cases the patient or a member of his household was interviewed. This cross-check demonstrated that the social class grading from the records was extremely accurate, and in only three cases did the information from the records prove to be misleading.

Certain types of case presented special difficulty in social class grading. Students and schoolboys were given the class of their fathers. Patients who, because of personality disorders or developing mental illness, had had no fixed occupation during the 12 months or more before the first admission, were regarded as having the occupation which they had held longest since first starting work. In three cases the patient had never pursued any gainful occupation, because mental abnormality had been apparent from the time of leaving school. These patients, like the schoolboys, were given the same grading as their fathers. No retired men were included in the series.

The Registrar General's five social classes are based on "general standing within the community, economic circumstances not being taken into account except insofar as they are reflected in the Occupational Classification . . . assignment to an occupational group automatically attracts the social class grading appropriate to that occupational group" (General Register Office, 1951).

This classification has its limitations (Logan, 1954) and may be misleading in individual cases. It does not make use of place of residence, and so cannot be employed in evaluating "social isolation", nor can it be strictly compared with the "Index of Social Position" (Hollingshead and Redlich, 1958). It is, however, widely accepted that, in this country at least, occupation provides the best index of social status (Moser and Hall, 1954).

Employing the criteria described above, a series of 224 cases was obtained. Of these, five were excluded because the patients had died within 2 years of first admission. A further three patients who had died more than 2 years but within 5 years after first admission, were included in some of the analyses.

A proforma containing twenty items was now completed for each, using information obtained from the case notes, together with any out-patient or follow-up clinic notes. The items recorded were chosen as relevant to assessment of the following points:

(a) Age at first admission.
(b) Marital status at first admission.
(c) Address from which admitted.
(d) Diagnosis.
It was hoped to obtain from this information a guide to three main indices of prognosis: the length of stay in hospital, the outcome of treatment, and the readmission rate.

Results

Social Class Distribution, Marital Status, and Age at First Admission.—The results are shown in Table I.

<table>
<thead>
<tr>
<th>Social Class . . .</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>4</td>
<td>11</td>
<td>71</td>
<td>12</td>
<td>45</td>
<td>143</td>
</tr>
<tr>
<td>Ever Married</td>
<td>2</td>
<td>8</td>
<td>41</td>
<td>5</td>
<td>20</td>
<td>76</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>19</td>
<td>112</td>
<td>17</td>
<td>65</td>
<td>219</td>
</tr>
<tr>
<td>Mean Age (yrs)</td>
<td>33·6</td>
<td>34·8</td>
<td>33·3</td>
<td>30·9</td>
<td>31·7</td>
<td>32·7</td>
</tr>
</tbody>
</table>

Here there is no significant correlation between marital status and social class ($\chi^2 = 1·129; d.f. = 2; p > 0·05$); marital status can therefore be ignored in calculating the effects of the social class distribution.

Age at first admission is another factor which may influence prognosis, but there seems to be no simple relationship (Parnell and Skottowe, 1959). Hollingshead and Redlich (1958) found that the age at which patients first came under psychiatric treatment was lowest in Social Classes I and II and highest in the lower social classes. Assuming the age at onset of the illness to be the same in all classes, this implies a delay in starting treatment for the lower class patients; if this is the case it would tend to worsen the prognosis for the latter.

In the present series there is no relation between social class and age at onset. The mean age at onset is actually slightly lower in Class IV and V than in Class I and II (31·5 as against 34·5 years). A $t$-test for the significance of difference between means, however, shows that this is not significant (Standard Error of Difference = 2·51; Difference between Means = 3·0). Age at first admission can also be ignored, therefore, in assessing the effects of social class distribution.

Duration of Hospital Stay.—This is now widely accepted as one of the most reliable indices of prognosis (Harris and Lubin, 1952; Orr, Anderson, Martin, and Philpot, 1955; Harris and others, 1956). It has been found repeatedly that a patient's chances of discharge decrease rapidly after he has been in hospital for 2 years continuously. A continuous stay in hospital of 2 years or more is now frequently used as a criterion in defining the chronic patient (Cross, 1954; Brown, Carstairs, and Topping, 1958; Brown, 1959; Wing and others, 1959). While the pattern of the mental hospital population is now undoubtedly changing, it seems likely that patients with the longest hospital stay will continue in the future, as in the past, to carry the worst prognosis. Certainly the ominous significance of a 2-year stay would have held true during the period of the present survey.

The relationship between duration of hospital stay and the patients' social status has been investigated by a number of workers, usually as one aspect of a more general investigation. Hollingshead and Redlich (1958) found that the duration of stay was longer in the lower social classes; the proportion of psychotic patients in their census who had been under continuous hospital care from first admission was 15·4 per cent. for Class I and II, as opposed to 56·3 per cent. for Class V patients. These authors also concluded that class differences in duration of hospital stay had not become any less marked in recent years, despite the introduction of modern methods of treatment.

In Great Britain, Carstairs and others (1955) came to a different conclusion, finding a higher percentage of long-stay cases among Class III than among Class V patients (50·9 per cent. compared with 31·6 per cent.). They suggested that the disparity between their figures and those of the American workers might be explained by the greater availability of treatment in Great Britain since the introduction of the National Health Service. Brooke (1959a), on the other hand, dealing with a larger series, found a positive correlation between social class and duration of stay.

The findings in the present survey (Table II, overleaf) were roughly in agreement with Brooke's. Because of the small number of cases in this series, Classes I and II and Classes IV and V are grouped together for all statistical calculations.

Furthermore, of a total of 26 patients who remained in hospital continuously for over 5 years,
none was from Class I and II, eight were from Class III, and eighteen from Class IV and V.

We can say, therefore, that in the present series social class is clearly related to duration of hospital stay, and that the lower the social status of an individual patient the greater the danger of his becoming a chronic hospital case.

A second important criterion in assessing prognosis is the total amount of time spent in hospital during a given period. The majority of psychiatric cases are now dealt with on a voluntary basis, and one result of this is that many leave hospital after a short stay, sometimes before their illness has been adequately treated. Moreover, the use of modern methods of treatment often produces rapid relief of the disturbing symptoms, yet leaves the patient prone to early relapse. The present tendency, therefore, is for schizophrenic patients to have a shorter stay in hospital after first admission than formerly, but to have a high readmission rate. Often, too, the second or third spell in hospital may be more prolonged, and the patient may lapse into a chronic hospital case at this stage. For these reasons it is helpful to consider the total amount of time spent in mental hospitals by a patient in the period of 2 years or more after first admission.

Harris and others (1956), in a follow-up survey of schizophrenic patients, compared the total time spent in hospital during a period of 5 years, with the patients' clinical and social condition at the end of the 5 years. They found that there was a highly significant relationship, and concluded that assessment of prognosis by duration of hospital stay did, in fact, give reliable results.

Brooke (1959a) calculated the total percentage of time spent in hospital in the 2 years after the first admission, and concluded that patients from Classes IV and V spent a greater proportion of the 2 years in hospital than those from Class III; or, in other words, patients in Classes IV and V made a greater claim on hospital time than those in Class III. The results of the present inquiry bear this out (Table III).

These results are not entirely reliable, since they were obtained mainly from a study of hospital records. A certain number of patients who had no record of readmission may have left the Bristol area and have been readmitted to other mental hospitals. That this was so in some cases was deduced from the case notes, and the mental hospitals concerned were asked about the subsequent progress of these patients, but other readmissions outside the area may not have been recorded. It seems unlikely that upper social class patients would be more migrant than lower, and that a bias might thus have been introduced; nevertheless, the need for a more conclusive follow-up led to the study of the "Discharge Series", to be described later.

Readmission Rates.—This may be a significant pointer to the subsequent outcome of a series of cases. Brown and others (1958) noted, in their follow-up series of schizophrenic male patients who relapsed over a period of 6 years after discharge, that 74 per cent. did so in the first year.

In the present study the same criticism holds true for readmission rates as duration of stay, namely that a number of readmissions to other hospitals may have been missed; nevertheless, the patients in this series as a whole remained surprisingly static geographically, and the readmission rates obtained probably give a good approximation to the true picture (Table IV, opposite).

It seems, therefore, that patients in lower social classes are not only more likely to remain in hospital longer, but also tend to be readmitted more quickly than those from the upper social classes, and that both these factors lead to the lower class patients spending a longer time in hospital.

The third section of Table IV includes patients who have remained in hospital continuously for 2 years since the date of first admission and others who have been readmitted once or more. This convenient, if somewhat arbitrary, guide to prognosis emphasizes the social class gradient. A check of patients known to be in hospital 5 years from the date of first admission gave similar results: Class I and II three cases
TABLE IV
READMISSION OF PATIENTS DISCHARGED AFTER LESS THAN 2 YEARS, BY SOCIAL CLASS

<table>
<thead>
<tr>
<th>Readmission</th>
<th>Social Class</th>
<th>I and II</th>
<th>III</th>
<th>IV and V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>In First Year</td>
<td></td>
<td>No. ..</td>
<td>0</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Per cent.</td>
<td>0-0</td>
<td>22-3</td>
<td>22-0</td>
</tr>
<tr>
<td>Within 2 Years</td>
<td></td>
<td>No. ..</td>
<td>2</td>
<td>34</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Per cent.</td>
<td>8-0</td>
<td>30-4</td>
<td>28-0</td>
</tr>
<tr>
<td>In Hospital 2 Years from Date of First Admission</td>
<td>No. ..</td>
<td>1</td>
<td>23</td>
<td>28</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Per cent.</td>
<td>4-0</td>
<td>20-5</td>
<td>34-1</td>
</tr>
<tr>
<td>Total Number of Patients</td>
<td>25</td>
<td>112</td>
<td>82</td>
<td>219</td>
<td></td>
</tr>
</tbody>
</table>

**Clinical Condition at Discharge.**—This is important in assessing prognosis. For a number of reasons, patients may leave hospital with persisting mental disturbance. Voluntary patients may discharge themselves against medical advice, sometimes before completing treatment. Certified patients may abscond or may be taken out of care by a relative against medical advice. In addition, some patients are discharged with medical concurrence, when treatment has failed to produce any improvement and it is felt that further hospital care is unlikely to be beneficial. Other patients improve to a moderate extent with treatment, but continue to show more or less mild residual symptoms, or an underlying abnormality of personality which is held to make the prognosis less hopeful.

More detailed information can often be obtained from a study of the case notes, but the simplest and most readily available indication is the classification as “Recovered,” “Relieved,” or “Not Improved” noted on the patients’ case-sheet and on the Mental Health Index Card on discharge. The value of this classification is limited, since it gives only a rough idea of any individual patient’s condition and is decided by individual psychiatrists who may apply different standards to the three categories. Nevertheless, it has been used frequently in follow-up studies, as a recognized method of assessment. In the present series a rough check was carried out by assessing twenty cases from a study of the case notes, as “Recovered”, “Relieved”, or “Not Improved”, and comparing the results with the assessment given on the Mental Health Index Card: a discrepancy was found in only two cases (10 per cent.). Table V, which excludes three patients who died while still in hospital, each after a stay of over 2 years, shows a higher proportion of Class IV and V patients either not improved at discharge or still in hospital. On the other hand, the proportion of Class IV and V patients rated as “Recovered” is higher than that of Class III patients. The possible significance of this is not clear, but may be related to the higher proportion of certified patients in the lower classes; these patients are generally not discharged until they are regarded as recovered. If we consider only patients discharged from hospital, no significant relationship is found between condition at discharge and social class ($\chi^2=9-366$; $d.f.=4$. This is not quite significant at the 0·05 level of probability).

TABLE V
CONDITION AT DISCHARGE, BY SOCIAL CLASS

<table>
<thead>
<tr>
<th>Condition at Discharge</th>
<th>Social Class</th>
<th>I and II</th>
<th>III</th>
<th>IV and V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovered</td>
<td></td>
<td>No. ..</td>
<td>10</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Per cent.</td>
<td>60-0</td>
<td>19-1</td>
<td>22-2</td>
</tr>
<tr>
<td>Relieved</td>
<td></td>
<td>No. ..</td>
<td>13</td>
<td>63</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Per cent.</td>
<td>52-0</td>
<td>57-3</td>
<td>35-8</td>
</tr>
<tr>
<td>Not Improved</td>
<td></td>
<td>No. ..</td>
<td>2</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Per cent.</td>
<td>8-0</td>
<td>17-3</td>
<td>22-2</td>
</tr>
<tr>
<td>Still in Hospital</td>
<td></td>
<td>No. ..</td>
<td>0</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Per cent.</td>
<td>0-0</td>
<td>6-4</td>
<td>19-8</td>
</tr>
</tbody>
</table>

When, however, patients not improved at discharge are grouped with those still in hospital, the proportions of such ‘treatment failures’ are 8 per cent. for Social Classes I and II, 23·6 per cent. for Class III, and 42 per cent. for Classes IV and V. Grouped in this way Table V shows a highly significant relationship between response to treatment and social class ($\chi^2=18-793$; $d.f.4$; $p<0-01$).

There are several possible explanations. First, patients in the lower social classes may begin treatment at a later stage in their illness, and hence present more intractable therapeutic problems. Secondly, they may receive less effective and vigorously administered treatment. Thirdly, they may be less cooperative in treatment, regarding the hospital regime as authoritarian rather than therapeutic, and terminating treatment as soon as possible.

The first possibility is outside the scope of the present investigations, although it has been noted already that the average age of patients in the different social classes at first admission is not significantly different, which is against the hypothesis that the lower groups start treatment at a later stage of illness.
B. Cooper

The second possibility, that of differences in treatment, will be discussed later.

The third possibility, that the patients' co-operation in treatment may vary with social class, can be checked to some extent by considering the number of patients who discharge themselves, or are discharged at the request of their relatives, against medical advice. This information is readily obtained from the patients' case notes, since for medico-legal reasons it is standard practice to record the fact when a patient leaves against advice. Clearly, departure against medical advice is likely to be closely correlated with poor clinical state at the time of discharge and with a bad prognosis; in almost every case the psychiatrist's reason for advising against discharge is that the patient is mentally unfit to leave, or that the environment to which he will return is unsuitable.

A review of the case notes confirmed this; in almost every case the condition at discharge of patients departing against medical advice was recorded as "Not Improved". In the few cases given as "Relieved" the improvement over their clinical state at admission was only very slight, and their course of treatment was not completed when they left.

In Table VI, "left against medical advice" includes voluntary patients who discharged themselves against medical advice, certified patients who absconded and remained out of hospital for over 14 days, and certified patients taken out by relatives under Section 72 of the Lunacy Act, despite medical warning that this was unwise. The proportion of patients who left hospital in these circumstances is lowest in Social Classes I and II and highest in Social Classes IV and V.

### Table VI

<table>
<thead>
<tr>
<th>Patient Discharged</th>
<th>Social Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I and II</td>
</tr>
<tr>
<td>Against Medical Advice</td>
<td>2</td>
</tr>
<tr>
<td>With Medical Agreement</td>
<td>23</td>
</tr>
</tbody>
</table>

Possible Causes of the Social Class Gradient

So far the findings indicate that length of stay in hospital, condition at discharge, probability of relapse, and over a given period of years the total amount of time spent in hospital, are all to some extent related to social class. At this point it may be convenient to consider some of the possible causes, and these may be classified as follows:

1. The mode of referral to hospital.
2. The patient's status in hospital.
3. The type of treatment given.
4. The attitude to treatment of the patient and his relatives.
5. The arrangements for follow-up supervision and treatment.

(1) Mode of Referral.—Broadly speaking, an individual may seek psychiatric treatment for one of two reasons: either he wants relief from distressing symptoms, and believes that a psychiatrist can provide this; or he is persuaded, or coerced, by those around him—relatives, friends, colleagues, employer, social agency—who recognize, better than he does himself, the need for treatment. But the belief, or recognition that a particular symptom, or a particular abnormality of behaviour, is psychologically determined, may require a certain level of sophistication; lacking this, a variety of other explanations may be invoked. In such cases the path by which the patient eventually arrives at the psychiatrist may be a long and devious one, and the mental illness may be well established before treatment is started.

It is also possible that the patient's willingness to submit to psychiatric treatment may vary with his position in the class structure. The stigma attaching to mental hospital treatment is gradually diminishing but is more likely to persist among poor, uneducated people, for whom the psychiatrist and the hospital are to some extent symbols of authority and, as such, viewed with suspicion. Members of the lower social classes may thus tend to avoid the psychiatric services open to them, and come into contact with them only when the worsening of mental illness has led to harmful or anti-social behaviour and they are compulsorily brought into hospital. Conversely, members of the upper social classes are more aware of modern concepts of mental illness and neurosis, and of the possible treatment agencies, and are not so awed by authority nor so suspicious of treatment. They may be able to afford private consultation and psychotherapeutic sessions not available to others, and may be more willing and able to take time from work than those holding insecure or casually paid jobs.

This hypothesis was tested by Hollingshead and Redlich, and was found to correspond with the mode of referral of patients in New Haven. Thus, of schizophrenic patients entering treatment for the first time, all those in Class I and II were referred either by
private physicians or by family and friends; while 52.3 per cent. of those in Class V were referred by the police and courts, and 17.6 per cent. by social agencies.

The methods of referral employed are obviously dependent upon the local facilities provided. The psychiatric services in Bristol during the period under survey were probably fairly typical of those in most English industrial cities at the time. These are listed in Table VII, together with the cases in each social class.

### Table VII
**Method of Referral to Hospital, by Social Class**

<table>
<thead>
<tr>
<th>Method of Referral</th>
<th>Social Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I and II</td>
</tr>
<tr>
<td>Private Consultation</td>
<td>6</td>
</tr>
<tr>
<td>Domiciliary Visit (National Health Service)</td>
<td>1</td>
</tr>
<tr>
<td>General Hospital Out-Patient Department</td>
<td>14</td>
</tr>
<tr>
<td>General Hospital In-Patient</td>
<td>1</td>
</tr>
<tr>
<td>Direct from Gen. Practitioner</td>
<td>2</td>
</tr>
<tr>
<td>Observation Ward or Duly Authorized Officer</td>
<td>1</td>
</tr>
</tbody>
</table>

In the social class distribution shown in Table VII, two salient features can be observed. The first is the relatively high number of private consultations for the Class I and II patients. The total number is small, but the proportion among the Class I and II group is quite high (24 per cent.) and significantly greater ($p < 0.01$) than that in Classes III, IV, and V combined, i.e. 2 per cent. A much larger series of cases would be required, however, to investigate the social class distribution, and effect on outcome, of private treatment.

The second striking feature is the high proportion among the lower social classes of patients admitted via the Observation Ward or Duly Authorized Officer. The preponderance in Classes IV and V of this type of case is more clearly seen in Table VIII. This confirms the hypothesis already stated, that members of the lower social classes are more likely to be unwilling or reluctant hospital patients, with a concomitantly unco-operative attitude to treatment. It also indicates that on average they may be more severely mentally disturbed, or have a mental illness of longer standing than members of the upper social classes at the time of admission.

### Table VIII
**Admissions on Statutory Orders, by Social Class**

<table>
<thead>
<tr>
<th>Method of Referral</th>
<th>Social Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I and II</td>
</tr>
<tr>
<td>Observation Ward and Duly Authorized Officer</td>
<td>1</td>
</tr>
<tr>
<td>All Other Sources</td>
<td>24</td>
</tr>
</tbody>
</table>

$\chi^2 = 14.124; d.f. = 2; p < 0.01$

(2) **Patient Status.**—The considerations mentioned in discussing Observation Ward cases also applied largely to those who were admitted to mental hospitals under certificate. Certified status may be related to an unfavourable prognosis, for several reasons. First, it may be argued that only the more severe cases will be likely to warrant certification, and that these may be expected to carry a worse prognosis. Secondly, the stigma of certification may have an adverse effect on the patient's morale, and so reduce his chances of speedy recovery. Thirdly, the processes of medico-legal machinery may prove slow and cumbersome, serving to lengthen the interval between the patient's recovery or improvement and his discharge from hospital. Fourthly, hospital status, like the mode of referral, may be regarded as an index of the type of relationship existing between the patient and the treatment agency. In almost every case, a patient is not certified unless he has expressed himself as unwilling to undergo voluntary treatment; while a voluntary patient is in the same position as any other individual freely seeking medical treatment, a certified patient, particularly in the early stages of his hospital stay, is compulsorily detained and unwelcome treatment is thrust upon him for an illness to which he may not admit. It seems reasonable to suppose that the certified patient will be less co-operative in treatment, and less likely after discharge from hospital to retain grateful or happy memories of his stay. This in turn may lead to a less satisfactory follow-up and to further difficulties should readmission later prove necessary. On the other hand, since certified patients are usually kept in hospital until they are thought to have made a fair improvement, there is less danger with them than with voluntary patients of discharge before treatment is completed, or while the mental balance is still seriously disturbed; this may make for a better prognosis for the certified patient.
In the present study, the incidence of certification was found to be related to social class (Table IX).

**TABLE IX**

IN-PATIENT STATUS, BY SOCIAL CLASS

<table>
<thead>
<tr>
<th>In-Patient Status</th>
<th>Social Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I and II</td>
</tr>
<tr>
<td>Certified</td>
<td>3</td>
</tr>
<tr>
<td>Voluntary or Informal</td>
<td>22</td>
</tr>
</tbody>
</table>

Moreover, when in-patient status was compared with duration of hospital stay, it was found that a considerably higher proportion of certified patients became long-stay cases. In Table X the mean duration of stay is limited to the period of 5 years after the first admission. Clearly, the certified patient carries a considerably poorer prognosis, and the preponderance of patients from the lower social classes among the certified cases is related to their worse prognosis.

**TABLE X**

DURATION OF HOSPITAL STAY, BY IN-PATIENT STATUS

<table>
<thead>
<tr>
<th>Duration of Stay (yrs)</th>
<th>Certified</th>
<th>Voluntary or Informal</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 2</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Less than 2</td>
<td>29</td>
<td>156</td>
</tr>
<tr>
<td>Mean Duration of First Hospital Stay (mths)</td>
<td>25.9</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Moreover, when in-patient status was compared with duration of hospital stay, it was found that a considerably higher proportion of certified patients became long-stay cases. In Table X the mean duration of stay is limited to the period of 5 years after the first admission. Clearly, the certified patient carries a considerably poorer prognosis, and the preponderance of patients from the lower social classes among the certified cases is related to their worse prognosis.

(3) Methods of Treatment.—The type of treatment administered is an important factor in assessing prognosis. The existence of a relationship between the patient’s social status and the type of treatment employed would do much to explain the differences, so far discovered, in the outcome of the illness. While the American work is impressive, one cannot assume that the same findings would hold true in other countries. In particular, the existence in Great Britain of the National Health Service, which in theory makes available to every member of the community, free of charge, every orthodox form of treatment, might be expected to avoid the anomalies of the American system, whereby the type of treatment the patient receives is largely determined by his ability to pay for it.

Again, the same social class significance cannot be attached to the type of “treatment agency” used by patients in Britain. In England the great majority of all mental hospital patients are treated under the National Health Service, and the English state hospital does not carry the same stigma of social inferiority as its American counterpart. Nor is the average patient in an English mental hospital so likely to be isolated from his family and his community as a patient in an American state hospital, which is often a very large institution serving a huge catchment area.

During the period under survey, it was orthodox practice in Bristol, as in most parts of Great Britain, to advise in-patient treatment for all cases of schizophrenia. The treatment administered to the patients in this series is thus representative of the treatment of schizophrenia in Bristol during the period under survey. The number of cases treated by each of the chief recognized methods is listed in Table XI for each social class. The nature of the treatment was obtained from a study of the case notes. For long-stay patients, only treatment administered during the 2 years after admission was recorded.

**TABLE XI**

TREATMENT GIVEN, BY SOCIAL CLASS

<table>
<thead>
<tr>
<th>Type of Treatment</th>
<th>Social Class</th>
<th>I and II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep Insulin Coma</td>
<td>No.</td>
<td>7</td>
<td>43</td>
<td>8</td>
<td>17</td>
<td>75</td>
</tr>
<tr>
<td>Per cent.</td>
<td></td>
<td>28.0</td>
<td>38.0</td>
<td>47.0</td>
<td>26.0</td>
<td>34.2</td>
</tr>
<tr>
<td>Electro-Convulsive</td>
<td>No.</td>
<td>8</td>
<td>42</td>
<td>6</td>
<td>25</td>
<td>81</td>
</tr>
<tr>
<td>Per cent.</td>
<td></td>
<td>32.0</td>
<td>37.5</td>
<td>35.2</td>
<td>38.4</td>
<td>36.9</td>
</tr>
<tr>
<td>Other organic methods</td>
<td>No.</td>
<td>2</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Per cent.</td>
<td></td>
<td>8.0</td>
<td>8.0</td>
<td>5.9</td>
<td>3.1</td>
<td>6.4</td>
</tr>
<tr>
<td>Psychotherapy</td>
<td>No.</td>
<td>3</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Per cent.</td>
<td></td>
<td>12.0</td>
<td>7.1</td>
<td>0.0</td>
<td>3.1</td>
<td>5.9</td>
</tr>
<tr>
<td>No systematic treatment</td>
<td>No.</td>
<td>8</td>
<td>34</td>
<td>5</td>
<td>27</td>
<td>74</td>
</tr>
<tr>
<td>Per cent.</td>
<td></td>
<td>32.0</td>
<td>30.4</td>
<td>29.4</td>
<td>41.5</td>
<td>33.7</td>
</tr>
</tbody>
</table>

Prefrontal leucotomy had been performed in only six cases, and its use was not related to social class. The rather surprisingly small number of leucotomies is explained by two facts: first, prefrontal leucotomy was not in favour for cases of schizophrenia in this hospital group, even during the period under survey (1949–53); secondly, it was unusual for leucotomy to be advised during a patient's first mental hospital admission.

Sedation with barbiturates, paraldehyde, or other drugs was not classed as a major method of treatment. All cases not included in one of the first four categories were classed as having no systematic treatment.
The term "psychotherapy" was reserved for cases in which a formal and systematic psychotherapeutic approach had been made by a senior psychiatrist. As has been mentioned, this form of treatment was not in wide use for cases of schizophrenia, and the total number of cases is small. In practice the cases so listed were almost exclusively ones in which group psychotherapy was employed, in conjunction with or subsequent to organic therapy, and they were almost entirely cases in which paranoid features predominated.

The total number of individual courses of treatment recorded is higher than the number of patients, since a number of individuals received more than one form of treatment.

A brief inspection of Table XI reveals that there was no clear relation between treatment and social class. Deep insulin coma therapy, at that time the treatment of choice in early schizophrenia, was given as often to patients of Class V as to those of Class I and II. So was electro-convulsive therapy, which was evenly divided among the social classes. Only two findings appear to differ from a random distribution of treatment: the small number in Class IV and V who received psychotherapy, and the large number in Class V who received no systematic treatment.

There is an observable trend for upper class patients to receive psychotherapy more often than lower class patients ($\chi^2 = 5.34; d.f. = 1; p < 0.05$). The number is too small, however, for any definite conclusions to be drawn; a larger series would be required, and preferably one in which diagnoses other than schizophrenia were under consideration. Among patients receiving no systematic treatment, there is no social class gradient: Classes I to IV fall slightly below the expected frequency, and Class V has a higher frequency than expected, but the number of cases is too small for this to be significant.

In general, there is no definitely established relationship between the patient's social class and the type of treatment administered. Even if a much larger sample of patients was considered, it seems very unlikely that anything like the New Haven findings would be observed. Whatever the underlying causes behind the less favourable outcome for lower class patients, it does not seem that this can be attributed to any gross differences in the methods of treatment used in hospital. Whether other less tangible factors in treatment, such as the attitude towards the patient of medical and nursing staff, the thoroughness with which treatment is pursued, the degree of improvement required before treatment is stopped, the patient's concept of the treatment process—whether these play any part in determining outcome, is a subject which requires investigation but is outside the scope of the present study.

(4) Attitude to Treatment.—This has already been discussed in considering those patients who left hospital against medical advice and the class distribution of certified patients. One has the impression that the upper class patient and his relatives establish better rapport with the hospital community than those of lower social status. Hollingshead and Redlich emphasize the importance in this of the psychiatrist's own social prejudices and lack of understanding of his lower class patients. Other possible factors may be equally important, however; for example, the attitude of nursing staff towards a patient of higher social standing than their own, or the effect on a patient of one social class being placed in a ward of patients mainly from a different class.

(5) Follow-up Arrangements.—On leaving hospital a patient could be referred to one or more possible agencies for after-care and supervision and this would normally be recorded in his case notes. At the same time, a discharge-summary or letter would be sent to each patient's general practitioner, and a copy of this would be filed with the case notes. Whenever a patient remained under psychiatric surveillance, a record of his attendances with clinical progress notes would be kept on a special card. From those sources it was possible to discover in almost every case what follow-up supervision, if any, the patient had received after discharge.

Psychiatric supervision was taken to include:

(a) Patients referred back to the psychiatrist who had seen them in private consultation before admission to hospital.
(b) Patients referred back to the general hospital out-patient clinic from which they had been admitted to hospital.
(c) Patients referred to a special "follow-up clinic" maintained and staffed by the mental hospital group.
(d) Patients referred to the Bristol Day Hospital for a period of daily attendance and possibly further psychiatric treatment.

Patients not included as having psychiatric supervision included:

(a) Those discharged to the care of their general practitioners.
(b) Those recommended for supervision by the Local Authority Mental Welfare Department, but without other supervision.
(c) Those visited at home by the hospital social workers, but without other supervision.

(d) Those for whom no arrangements were made. This included patients who had absconded, or who were about to leave the area.

In Table XII patients are listed as having follow-up supervision, if arrangements were made for it and if they attended for a follow-up interview at least once. Follow-up arrangements were made in over two-thirds of all cases discharged, but the period of follow-up varied considerably and on average, patients did not attend more than three times before either defaulting or being discharged. It seems doubtful therefore, whether follow-up supervision played an important role in the patient's subsequent progress. Table XII demonstrates a tendency for a social class gradient in follow-up supervision, but this is not statistically significant.

### Table XII

<table>
<thead>
<tr>
<th>Psychiatric Supervision</th>
<th>Social Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I and II</td>
</tr>
<tr>
<td>Given</td>
<td>20</td>
</tr>
<tr>
<td>Not Given</td>
<td>5</td>
</tr>
</tbody>
</table>

\[\chi^2 = 3.24; \text{ d.f.} = 2; p < 0.05\]

### Social Isolation

The influence of "social isolation" on prognosis was examined by a separate analysis of those patients who were found to have been living out of their family setting immediately before admission. Patients living with parents, spouses, siblings, or children were regarded as having "in a family setting", and patients living alone or in lodgings were regarded as "out of a family setting". No patient was included in the latter category unless he was known to have been living away from his family for at least one month before admission, and no patient admitted from another hospital or institution was included. A study of the case notes and social workers' reports yielded thirty patients who were out of a family setting. These thirty cases were then checked for three of the main points in assessing outcome: the number who became long-stay patients; the number regarded as "treatment failures" (i.e. discharged "not improved", or still in hospital); the mean length of time spent in hospital during the 2 years after admission. From Table XIII, in which the resulting figures are compared with those already obtained for the whole series, a number of points emerge:

1. There is a preponderance of cases from Social Class IV and V in the group designated out of family setting. Seventeen out of thirty (56.7 per cent.) are drawn from Class IV and V, as compared with 82 out of 219 (36.4 per cent.) in the whole series. This excess of lower class cases is significant \(\chi^2 = 5.484; \text{ d.f.} = 1; p < 0.02\). This finding is not unexpected. The hypothesis of "social isolation" has already been put forward as one explanation for the social class gradient in schizophrenia. Hare (1956b), in his Bristol survey, found that both social class and "family setting" were related to the incidence of schizophrenia; the two were to some extent correlated, for a high proportion of the cases out of family setting came from the poor central area of the city; but a number were also drawn from the "good" central area in which there were a large number of lodging-houses and persons living alone. Conversely, few cases of schizophrenia were drawn from the council housing estates, although these housed a large proportion of lower class persons. The most significant factor correlated with the incidence of schizophrenia in the different wards of the city was not the mean rateable value but the proportion of single-person households in each ward.

Stein (1957), in her London survey, carried this line of investigation a step further, for she found the maximum incidence of schizophrenia among patients in Class V living in the London boroughs with the highest number of "non-private households" and "one-person households"—that is, the incidence was highest when the two precipitating factors of low social class and "social isolation" were found in conjunction. This is in keeping with the observation that the highest incidence rates for schizophrenia are found among kitchen hands, domestic servants, and casual labourers (Brooke, 1957; Registrar General, 1958).
(2) The prognosis is worse for patients out of family setting than for others. Nine out of thirty (30 per cent.) remained in hospital for over 2 years, compared with 34 out of 219 (15·5 per cent.) in the whole series. This is a significant excess ($\chi^2 = 5·554; d.f. = 1; p < 0·02$). Fourteen out of thirty (46·7 per cent.) were classed as “treatment failures” compared with 62 out of 219 (28·3 per cent.) in the whole series. Again, this is a significant excess ($\chi^2 = 5·771; d.f. = 1; p < 0·02$). Finally, the mean total time spent in a mental hospital during the 2 years after admission is 13·1 months for the patients out of family setting and 9·2 months for the whole series.

These results also are not surprising. The schizophrenic patient living alone, often out of touch with his relatives, with few close friends or none, often drifting from one casual job to another, is less likely to be persuaded at an early stage of his illness to seek medical aid, or to persevere with treatment once it has started. His abnormalities of behaviour are more likely to be tolerated, or to pass unnoticed, in the milieu in which he lives. Moreover, he tends to become more isolated from the community more rapidly once he has entered hospital. There is no pressure from relatives for his discharge, and the lack of any home-address to which he can be discharged or of a job to which he can return, may render him a social problem of disposal even when his mental symptoms have abated.

(3) While the prognosis is appreciably worse for patients out of family setting, in the present series it appears to be worst of all for patients from Social Class III, but the few close friends or none, often drifting from one casual job to another, is less likely to be persuaded at an early stage of his illness to seek medical aid, or to persevere with treatment once it has started. His abnormalities of behaviour are more likely to be tolerated, or to pass unnoticed, in the milieu in which he lives. Moreover, he tends to become more isolated from the community more rapidly once he has entered hospital. There is no pressure from relatives for his discharge, and the lack of any home-address to which he can be discharged or of a job to which he can return, may render him a social problem of disposal even when his mental symptoms have abated.

The geographical distribution of patients of bad prognosis was consistent with the social class gradient. Of 28 patients admitted from private addresses within the City of Bristol who remained in hospital continuously for over 2 years, fourteen came from the poor central area (the lodging-house and slum area), eight from the peripheral council housing-estate areas, and six from the “good” residential and heterogeneous areas. Of 51 patients listed as “treatment failures”, 21 came from the poor central area, sixteen from the council housing-estate areas, and fourteen from the residential and heterogeneous areas.

**SUMMARY**

The relationship between social class and prognosis has been studied for 219 male schizophrenic patients first admitted to a mental hospital during a 5-year period. The following conclusions were reached:

1. The proportion of patients who became long-stay cases was related to social class, being significantly higher in the lower social classes.

2. The mean duration of stay in hospital was related to social class, and was longer for the lower classes.

3. Response to treatment, as measured by the rate of discharge and clinical state at discharge, was related to social class, and was less favourable among the lower classes.

4. These findings could not be explained by correlation with age at admission or with marital status.

5. There was no significant relationship between social class and the normal treatment provided in hospital, nor between social class and follow-up supervision.

6. There was a significant relationship between social class and mode of referral to hospital, between social class and in-patient status, and between social class and co-operation in treatment.

7. “Social isolation” was related to prognosis, and also to some extent to social class, but the latter had a prognostic influence independent of the patient’s family setting.

**TABLE XIV**

<table>
<thead>
<tr>
<th>Social Class</th>
<th>I and II</th>
<th>III</th>
<th>IV and V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-stay Cases</td>
<td>22</td>
<td>102</td>
<td>65</td>
<td>189</td>
</tr>
<tr>
<td>Treatment Failures</td>
<td>2</td>
<td>21</td>
<td>25</td>
<td>48</td>
</tr>
</tbody>
</table>

**REFERENCES**


—— (1956b). Ibid., 102, 753.