INTRODUCTION

A paper based on the study of highly selected cased material drawn from private specialist practice has its short coming. However, there seems little doubt that clinical studies in general practice are of potential value in the study of mental disorder in community and in particular they may help to throw light on the presentations and contribute to the diagnosis and management of this group of illness.

DEFINITION

'Schizophrenia', as defined by Birley, includes a range of conditions which vary both in symptomatology and outcome. It generally implies that at some time in the course of illness some of the following symptoms have been present; disturbances in thinking (a confusion or interruption of usual trains of thought and the formation of delusions); disturbances in perception (particularly auditory and visual hallucinations); disturbances in motor performance (excitement, retardation and abnormal gestures); and disturbances in emotional response (emotional blunting, shallowness and emotional incongruity). A definite diagnosis should be based on positive evidence of abnormal thinking and perception as judged by patient's own account and behaviour, and reports of others; and not on just quality of rapport or blunting of affect, which are extremely unreliable.

It is recognized that these symptoms may take some time to appear so that early diagnosis may be difficult and cannot readily be made by using these criteria. Such strict criteria however are required because of lack of objective method in diagnosis. In this study, patients where the diagnosis is in doubt and where the disease is not established, are labelled as 'borderline' cases; and are excluded.

THE PRESENT STUDY

Is a study on 100 patients suffering from Schizophrenia, observed and treated by the author during the last two years as out-patients in a private clinic. In most cases, it was possible to interview both the patients and their relatives. No age limit is imposed. Patients suffering from epilepsy, mental subnormality, organic cerebral disease and physical illness or with history of taking hallucinogenic drugs or alcohol are excluded.

GENERAL FINDINGS

The incidence of Schizophrenia rising from different age group is shown in Table 1. It can be seen that 71 patients have the age of onset of illness in age-range of 13-29, which indicates that the main varieties of Schizophrenia begin within this age-range.

<table>
<thead>
<tr>
<th>Age of Onset of Illness</th>
<th>No. of Male Patients</th>
<th>No. of Female Patients</th>
<th>Total No./%</th>
<th>Control*</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-14</td>
<td>1</td>
<td>1</td>
<td>18.9</td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>14</td>
<td>15</td>
<td>29</td>
<td>15.9</td>
</tr>
<tr>
<td>20-29</td>
<td>27</td>
<td>14</td>
<td>41</td>
<td>20.2</td>
</tr>
<tr>
<td>30-39</td>
<td>11</td>
<td>11</td>
<td>22</td>
<td>16.5</td>
</tr>
<tr>
<td>40-49</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>12.1</td>
</tr>
<tr>
<td>Over 50</td>
<td>1</td>
<td>—</td>
<td>1</td>
<td>17.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>55</td>
<td>45</td>
<td>160</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*A comparison of age of onset of illness with the mid-1968 Singapore population control.

The youngest patient seen, had her onset of illness at age of 13, which agrees with the statement that the incidence of 'adult type' Schizophrenia in young rises from puberty about 13 (Warren). In youth with disturbed behaviour, one therefore has to constantly keep in mind the possible development of Schizophrenia (Case 1).

Bleuler called Schizophrenia which occurred for the first time after age of 40 'late Schizophrenia'. In this study, in 6 patients, the age of onset was over 40 and 1 patient over 50. These figures are very low when compared to those of Bleuler's 15% and 17%, and those of Fish's 20.7% and 9%. It is likely that this group of patients studied is biased in favour of younger schizophrenies.
Schizophrenia commencing after the age of 60 called 'late paraphrenia' by Kay and Roth forms a group with well-organized symptoms of paranoid delusions with or without auditory hallucinations occurring in a setting of well-preserved personalities. The oldest patient would fall into this group of illness (Case 2).

Case 1

A 14-year-old female student, of average intelligence, failed her school examination one year ago. She was noticed to cry at first but later began to smile and laugh for no good apparent reason. She refused to help in the house and became very inconsiderate. On interview, she was found to be hallucinated and incongruous in mood.

Case 2

A 69-year-old male retired electrician, with no previous history of mental illness or poor physical health, presented with paranoid psychosis of some twelve months' duration. He was suspicious, agitated and irritable. He believed that his neighbours were consistently applying 'black magic' on him and claimed that they were sending radio-waves to interfere with the reception of his radio. He became very agitated and irritable. Later, he believed that his own relatives were in league with them and were poisoning his food. On examination, he showed no evidence of clouding of consciousness but was suspicious, angry and hostile. He lacked insight.

Table II shows the marital status of patients compared to control. The total number of single patients is about one and a half times that of the expected. The total number of married patients is however much lower than that of the expected. This indicates that the incidence of Schizophrenia is higher in single than in married which can be explained in terms of selection—those who remain single will include persons with constitutional traits causing them to be unfit for marriage and making them prone to Schizophrenia.

The patients are categorised in Table III according to their educational level. Categories 1 and 2 can be regarded in Singapore as 'higher educational level'. This level is attained by 24 patients showing that Schizophrenia is not unknown among those with tertiary or postgraduate education.

The patients are assigned into six classes according to the occupations of the head of the family. 63 patients belong to social Class I, II, and III, which can be regarded as higher social class in Singapore. An over-representation of patients of upper social group is expected in this study.

A study by Grunfeld in Oslo revealed that the social background of schizophrenics (their fathers' occupational status) did not differ significantly from that expected in a general population. Schizophrenics themselves however showed a marked social status decline or social 'downrift'.

### Table II

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>19</td>
<td>20</td>
<td>39</td>
<td>54.8</td>
</tr>
<tr>
<td>Single</td>
<td>35</td>
<td>22</td>
<td>57</td>
<td>35.6</td>
</tr>
<tr>
<td>Widowed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>8.5</td>
</tr>
<tr>
<td>Divorced</td>
<td>—</td>
<td>1</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>55</td>
<td>45</td>
<td>100</td>
<td>100.0</td>
</tr>
</tbody>
</table>

$X^2 = 17.3$ P < 0.5%

This shows a breakdown of marital status compared with data obtained from a 1966 Singapore Sample Household Survey.

### Table III

<table>
<thead>
<tr>
<th>Category</th>
<th>Educational Level</th>
<th>No. of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>University</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Pre-U 1 &amp; 2, College</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>Secondary I-IV</td>
<td>37</td>
</tr>
<tr>
<td>4</td>
<td>Primary I-VI</td>
<td>27</td>
</tr>
<tr>
<td>5</td>
<td>No formal education</td>
<td>12</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

### Table IV

<table>
<thead>
<tr>
<th>Social Class</th>
<th>Occupation</th>
<th>No. of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Managerial, professional</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Semi-managerial, semi-professional</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Skilled worker, clerical</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Semi-skilled worker</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>Unskilled worker</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>Unemployed</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

A study by Grunfeld in Oslo revealed that the social background of schizophrenics (their fathers' occupational status) did not differ significantly from that expected in a general population. Schizophrenics themselves however showed a marked social status decline or social 'downrift'.
Disturbances in Thinking

According to Fish, these can be divided into 4 groups:

(a) Formal thought disorder

Bleuler (1924) considered that the basic disorder was a disorder of association of ideas. Formal thought disorder was present in 48 of patients seen. The most common form of presentation was incoherent and illogical speech (Case 6). Occasionally, the patients might talk on and on without getting to a point (vague, woolly and circumstantial). As a symptom, formal thought disorder has received the top symptom rating importance in the diagnosis of Schizophrenia (Willis and Bannister).

(b) Disorder of stream of thought

Thought blocking was the most common complaint of disorder of stream of thought and it occurred in 5 patients seen.

(c) Disorder of control of thought

In this disorder the patients may suffer from thought insertion, thought broadcasting e.g. the belief that one’s thoughts are being read (Case 3); and passivity feelings (Case 4). Schneider believed that these symptoms: thought broadcasting—Gedankenlautwerden—and passivity feelings, defined as a belief that patient’s thoughts, motor actions and feelings were being influenced by outside forces, were diagnostic of Schizophrenia if organic disease could be excluded (Fish).

(d) Disorder of contents of thought—delusions

Delusion is defined as a false belief that cannot be corrected by argument and logic and is not appropriate with the patient’s educational or cultural background. In our multi-cultural society where suspicions and fears about ‘black magic’ and where doubts about being ‘charmed or harmed’ by neighbours are widely held, ideas of reference and persecutory ideas are common symptoms. When they reach the level of delusional phenomena, the contents of such beliefs are usually grossly bizarre. The patients’ reactions may also be very intense and they may act on their delusions. Paranoid delusions are the most common delusions seen in Schizophrenia.

Delusions of grandeur, delusions of religious or mystical contents (Case 5), and morbid jealousy are not uncommon in Schizophrenia. One patient had a delusion that the end of the world was at hand. This delusion had been
claimed as characteristic of Schizophrenia by some and not others. Delusions although common in Schizophrenia may occur in other psychiatric conditions.

Case 3

A 35-year-old male account-clerk, complained of difficulty in thinking for the last few years. In spite of this difficulty, he was able to continue working but his wife noticed that he had become more irritable. On examination, he was found to be tensed, perplexed and worried. He said that he was all confused because there were all sorts of thoughts in his mind. He felt that others could sense and read his thoughts. At times his thoughts were able to speak aloud.

Case 4

A 39-year-old male clerk, with a complaint that he could not think properly for the last 3-4 months, was unable to continue working in his office. He became very worried and could not sleep at night. On examination, he was found to be very depressed and anxious. He spoke of someone controlling his mind and was forcing him to say and do things against his will. He said that it might be the 'devil' and he felt that the devil was stuck to his brain.

Case 5

A 29-year-old male cashier-clerk became depressed and anxious over a matter of a few weeks. He was convinced that he was the child of a 'sun-god' and had to bathe frequently because of the excessive heat in him. He refused to sleep at night but would sit up reading his prayer books and writing prayers for strangers. On examination, he was very agitated and talked incoherently on religious matters.

Case 6

A 51-year-old male teacher, who had been learning yoga for past four years, was convinced that his yoga teacher had applied electric current to his brain and destroyed it. On examination, he was found depressed and agitated, and he talked incoherently on cell-current, sun-energy, metabolism of cells, electro-magnetism and electro-physiology.

Disturbances in Perception

Hallucinations may be defined as auditory, visual, olfactory or tactile sensations without any corresponding external stimuli. Auditory hallucinations in form of voices are common schizophrenic symptoms and are often diagnostic of Schizophrenia (Case 7). Visual hallucinations are less common. Patients usually complain of seeing devils, spirits, old women with long hair and dead relatives. One young patient said that she saw devils, fire and seven dwarfs.

Case 7

A 21-year-old female teacher became nervous and tense because of the impending visit of the school inspector. She could not sleep at night and began to hear persecutory "voices". They were the voices of 2 ladies and 1 man. She wrote, "Reasons why I hate the voices: they call me a drug addict, they say that I put on an act no matter what I do, they watch me constantly, they make me restless and nervous, they control my mind at times, they are inquisitive, they caused me to have a breakdown, they irritate my nerves constantly day and night, once I take the medicine the voices disappear".

Other Symptoms

Depression is common in early state of Schizophrenia but it may occur later, secondary to distress caused by schizophrenic symptoms. Anxiety is usually associated with hallucinations, persecutory delusions and occasionally with the problems of continuing further employment.

Behaviour of Schizophrenia

The behaviour of schizophrenic patients may be divided for practical purposes into two types: (1) abnormal behaviour and (2) grossly disturbed behaviour.

(1) Abnormal behaviour

This abnormal behaviour, possibly attributable to Schizophrenia, includes marked social withdrawal, poor personal hygiene, mannerism, posturing, facial grimaces, wandering and bizarre behaviour (Brown et al). Such abnormal behaviour though creating no immediate danger will cause much embarrassment and hardship to the relatives.

In this study, 32 patients were found with episodes of giggling or inappropriate smiling and laughing, and 27 patients with odd behaviour (Case 8). 18 patients when first seen were markedly withdrawn socially and neglected their personal hygiene. Disorders of motor performance occur in all forms of Schizophrenia but they are most marked in catatonic Schizophrenia. This form of Schizophrenia is rarely seen in private practice (Case 9).
Case 8
A 38-year-old male clerk had a previous mental breakdown 18 years ago. His present relapse started with a bout of crying, and restless and disturbed behaviour. He refused to eat and to sleep at night. He told his wife that he saw the Lord Buddha who had asked him to be a priest. He would kneel down two to three hours on each occasion to pray. His wife also described various odd behaviour. For example, he would sweep the drains in the estate; collect stones home, wrap them up with newspaper and hide them in the house. On several occasions, he would steal a fish from the kitchen and bury it in the garden. He lacked insight into his illness and refused to consult a doctor or to take medicine.

Case 9
A 16-year-old female student was noticed by the mother to be unusually withdrawn and stubborn. She refused to talk, to eat, to bathe, to dress and to take care of her personal hygiene. She told her mother that she had several visions of the devils. There were periods of very aggressive and unmanageable behaviour. On examination, she was poorly nourished. She remained mute and inaccessible and grimacing frequently. She was found very resistive and retained the posture into which she was passively impressed (flexibilitas cerea).

(2) Grossly disturbed behaviour
This includes suicidal attempts and threats, threatened violence, violent and destructive behaviour, shouting or markedly noisy behaviour, markedly excited or restless behaviour.

TABLE VII

<table>
<thead>
<tr>
<th>Grossly Disturbed Behaviour</th>
<th>No. of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markedly excited and over-active behaviour</td>
<td>54</td>
</tr>
<tr>
<td>Markedly noisy behaviour</td>
<td>35</td>
</tr>
<tr>
<td>Threatening and harmful behaviour</td>
<td>24</td>
</tr>
<tr>
<td>Suicidal attempts</td>
<td>9</td>
</tr>
<tr>
<td>Violent, destructive behaviour</td>
<td>17</td>
</tr>
</tbody>
</table>

It can be observed from Table VII that schizophrenics do present frequently with episodes of very agitated and noisy behaviour. Such patients however can still be managed as out-patients though the tolerance of the relatives may often be stretched to the limit. But those patients who are of danger to themselves and others are best treated initially in hospital. The problems often are (1) to persuade and convince the relatives to send them to hospital and (2) to get them to hospital. In the latter case, with very aggressive patients, the help of the police may be necessary.

MANAGEMENT

The treatment of Schizophrenia has undergone changes for the better during the last 30 years largely because of the discovery of new physical methods of treatment—drug and electro-convulsive-therapy (E.C.T.).

(1) Drug therapy
Phenothiazine are drugs of choice in treatment of Schizophrenia. Drugs are used as empirical and symptomatic treatment and the aim is to control disturbed behaviour and associated symptoms. In correct dosage, they are effective in minimizing symptoms and disability; and in keeping the patients out of hospital.

Schizophrenia has a tendency of running a relapsing course and thus every case should be on long term medication with regular supervision to prevent further relapses. Unfortunately, it is very difficult to get patients to take continuous medication especially when they start feeling generally well (Freeman). Of 33 patients, observed for a period of six months to two years: 5 had frequent relapses, 3 had two relapses, 6 had only one further relapse and 19 had no further relapse. All the 33 patients were treated with phenothiazine and only 13 of the 33 patients were required to be treated with Modified E.C.T.

(2) Modified E.C.T. is used in:
(a) catatonic states;
(b) where the depressive component is marked;
(c) in acute and very disturbed schizophrenic illness to cut short the attack;
(d) in combination with drug-therapy when the response to drug-therapy alone is unsatisfactory.

(3) Other treatment
For short term or early treatment, drugs and E.C.T. are of prime importance. However, the longer the duration of illness, the prominent are the needs for social and rehabilitative measures to ensure reasonable degree of symptoms relief and social adjustment (Cawley).
SUMMARY AND CONCLUSION

A study was made of 100 patients suffering from Schizophrenia, seen and treated over a period of two years (1968 and 1969) in a private psychiatric clinic. All the patients were seen as out-patients. 71 of the 100 patients had the age of onset of illness in the age group of 13-29. Comparing with the control, the incidence of single was shown to be much higher than that of the married. In this group, the illness was shown to occur in patients of rather high social background and with high educational level. Ethnically, the Malays were under-represented.

Diagnosis of Schizophrenia was made on the basis of abnormal psychological symptoms and abnormal behaviour. There were no abnormal physical signs. The data obtained on the symptomatology and abnormal behaviour of 100 patients were analysed and discussed.

In management of early stage of illness, drugs and E.C.T. were of prime importance. However, in chronic patients, the greater were the needs for social support and rehabilitation.

REFERENCES