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Undiagnosed Psychiatric Patients* Part II: Follow-up Study

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In a previous report records were studied of 256 in-patients who were discharged as undiagnosed, i.e. in-patients who at the time of discharge did not have a definable psychiatric illness (Welner, Liss, Robins and Richardson, 1972). In that study it was shown that when rigorous criteria for psychiatric research (Feighner, Robins, Guze, Woodruff, Winokur and Munoz, 1972) were used 68 per cent of these patients met the criteria for an established psychiatric disorder. It was concluded that: (1) The chart review diagnoses for a population of undiagnosed patients consisted of a variety of established psychiatric disorders and the population was not homogeneous. (The chart review diagnosis is a diagnosis obtained by review of the patients' hospital records and evaluating the information by using diagnostic criteria for psychiatric disorders.) (2) The most efficient way to arrive at a diagnosis was by structured rather than conventional narrative interview. This study is a follow-up study of these patients and attempts to evaluate the validity of the chart review diagnosis. A concordance between the chart review diagnosis and follow-up diagnosis supports the above conclusions. The follow-up study also served to establish diagnosis in patients who had too few symptoms initially to meet the criteria for a diagnosis.

Material and Method

All patients who at the time of follow-up were residents of St. Louis and St. Louis County were included in this study. As for the record study, a list of items was prepared using previous studies, interviews and information in hospital charts, and was used to prepare a structured interview consisting of: (1) a list of 223 symptoms and signs alphabetically arranged; and (2) information about marital status, physical illness, non-psychiatric admissions to hospital, operations, psychiatric admissions to hospital, occupation, change in socio-economic status, evidence of remission, chronic illness, and death. The symptoms and signs were recorded as occurring before or during index admission, after discharge from hospital, at the time of the follow-up, or a combination of time of occurrences. Sources of information were patients, relatives, doctor, record, or combinations of these. All follow-up interviews were conducted blind, except for three patients whose follow-up was by record only. The recorded information was checked with the diagnostic criteria designed for research for the following disorders: depression, mania, schizophrenia, hysteria, alcoholism, antisocial personality, anxiety, phobic and obsessive compulsive neuroses, drug dependency, mental retardation, organic brain syndrome, and homosexuality. Our criteria for schizoaffective illness were the same as in the record study. These follow-up psychiatric diagnoses were compared to the ones of the record study and were divided into the following groups:

(1) Follow-up diagnoses which were the same as the chart review diagnoses (including patients whose diagnosis was 'undiagnosed').

(2) Follow-up diagnoses which were different than the chart-review diagnoses.

(3) Follow-up diagnoses of patients in which chart review contained insufficient information to make a diagnosis.

(4) Follow-up diagnoses of patients termed 'undiagnosed' at follow-up or changing to schizoaffective illness in whom chart review met

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the criteria for a diagnosis. (Note that 3 and 4 are opposite.)

The 79 patients in Group 1 included: patients whose follow-up diagnosis was identical to the chart review diagnosis; whose follow-up diagnosis was manic-depressive bipolar and chart review diagnosis was depression (probable or definite); whose follow-up diagnosis was definite depression and chart review diagnosis was probable depression; whose follow-up diagnosis was definite antisocial personality and chart review diagnosis was probable antisocial personality; and whose follow-up diagnosis was chronic organic brain syndrome because of alcoholism and whose chart review diagnosis was chronic organic brain syndrome.

Included in Group 2 were all the patients whose follow-up diagnosis was different from the chart review diagnosis, even though the two diagnoses might be regarded by some to be related in the presentation of the illness or the natural course, e.g. a patient whose chart diagnosis was depression and whose follow-up diagnosis was probable or definite hysteria with secondary depression, or a patient whose chart diagnosis was antisocial personality and whose follow-up diagnosis was schizophrenia.

Included in Group 3 were all patients who could be diagnosed at follow-up but had remained undiagnosed after their record study charts were reviewed. In this group the chart symptoms were re-evaluated to see if they were suggestive or not of the follow-up diagnosis. The method used to determine if the chart symptoms in this group were suggestive of the follow-up diagnosis was by submitting the list of symptoms and signs for each patient to three psychiatrists and asking them to make the most probable diagnosis, knowing only that a diagnosis had been made.

Included in Group 4 were patients whose follow-up diagnosis was either undiagnosed or schizoaffective illness and whose chart diagnosis was any of the established diagnoses except schizoaffective illness. The reason for including in this group patients with a follow-up diagnosis of schizoaffective illness was because a change in clinical symptoms had occurred and because there is no generally accepted classification agreement for this disorder.

Results

A total of 115 patients were included in this study. Of these, 109 (95 per cent) were followed up; the remaining 6 could not be located. In one case of these 6 the location of the patient would not be released by a relative, who alleged that the patient refused to be interviewed. Of the 109 patients 92 (84 per cent) were personally interviewed. In some of these additional information was obtained from relative, doctor, and/or records. Of the remaining 17 who were not personally interviewed, 5 had died, one was critically ill, and 11 for various reasons were followed up by information obtained from a relative, record and/or doctor. The mean length of follow-up was 39 months.

Table I shows the distribution of the patients in four groups.

Table I

Distribution of 109 follow-up patients

	Group 1	Group 2	Group 3	Group 4	
	Follow-up same as chart diagnosis (includes undiagnosed)	Follow-up different than chart diagnosis	Follow-up diagnosed but chart review undiagnosed	Follow-up undiagnosed but chart review diagnosed	Total
No. of patients ..	79	7	14	9	109
Per cent of patients .. N = 109	72%	6%	13%	8%	

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Group 1—Follow-up diagnoses which were the same as chart diagnoses

A follow-up of 25 of the 79 patients in this group were still undiagnosed because they had too few symptoms to meet the criteria for a psychiatric disorder. Of the remaining 54 patients in this group both diagnoses were: 22 depression, 7 schizophrenia, 6 schizoaffective illness, 5 antisocial personality, 4 anxiety neurosis, 3 hysteria, 2 mania, 2 organic brain syndrome (one because of alcoholism), 1 alcoholism, 1 drug dependency, and 1 homosexuality.

Group 2—Follow-up diagnoses which were different than the chart diagnoses

Of the 7 patients in this group, 3 had a follow-up diagnosis of hysteria and secondary depression and a chart review diagnosis of depression. One patient had a follow-up diagnosis of hysteria and a chart review diagnosis of anxiety neurosis. One patient had a follow-up diagnosis of schizophrenia and a chart review diagnosis of antisocial personality. One patient had a follow-up diagnosis of anxiety neurosis and alcoholism and a chart review diagnosis of alcoholism. One patient had a follow-up diagnosis of depression and a chart review diagnosis of drug abuse.

Group 3—Follow-up diagnoses of patients whose charts contained insufficient information to make a diagnosis

Of the 14 patients in this group the diagnoses at follow-up were: 6 depression (one patient bipolar illness); 4 alcholism, 2 schizophrenia; and 2 anxiety neurosis. For ten of these fourteen patients an additional review of their charts was suggestive of the follow-up diagnosis, i.e. by submitting the chart list of symptoms and signs to three psychiatrists, the most probable diagnosis made was identical with the follow-up diagnosis. Of the four remaining patients, one patient's chart review included the symptoms suggestive of mania and the follow-up diagnosis was depression, one had chart symptoms suggestive of depressive illness and the follow-up diagnosis was alcoholism, one had chart symptoms which were fighting, promiscuity, aggressiveness and impulsivity and the follow-up diagnosis was manic-depressive bipolar, and one had chart symptoms which were depressed affect, agitation and suspiciousness and the follow-up diagnosis was anxiety neurosis.

Group 4—Follow-up diagnoses termed 'undiagnosed' of patients whose chart met the criteria for a diagnosis

Of the 9 patients in this group 2 had a chart review diagnosis of probable drug dependency. Because the drug abuse had been discontinued by the time of follow-up they were undiagnosed. One patient had a chart diagnosis of definite depression but because during the follow-up period, which extended past the age of 30, she developed enough symptoms to meet the criteria for hysteria and because the symptoms remitted completely 10 months before the follow-up she was classified undiagnosed. One patient met the criteria for definite hysteria for the chart review diagnosis but during the four-year follow-up she was asymptomatic and considered undiagnosed. Five patients whose follow-up diagnosis was schizoaffective illness were included in this group. Their chart review diagnoses were: 2 schizophrenia; 2 mania, and 1 depression. A diagnosis changing from an affective illness or schizophrenia to schizoaffective illness was placed by us in this group for reasons described under 'Method'.

Discussion

As the results show, there is a general agreement between the longitudinal follow-up diagnosis and the chart review diagnosis. In Groups 1 and 2 79 patients (92 per cent) had the same diagnosis at chart review and follow-up, and 7 patients (8 per cent) had a different diagnosis. The agreement between the follow-up and chart review diagnoses may be more impressive when we analyse the 7 patients in Group 2 and notice that although the diagnoses are different they are related. One patient had a follow-up diagnosis of schizophrenia and a chart review diagnosis of antisocial personality; however, there is evidence that antisocial behaviour precedes the onset of schizophrenia, at least in selected groups as patients attending a child guidance clinic (Robins, 1966). Another patient had a follow-up diagnosis of anxiety neurosis and alcoholism and a chart review diagnosis of alcoholism. The reason for the difference in

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diagnosis was that at follow-up the history was obtained that the patient during youth in military service had anxiety attacks and thus by our criteria he was given a primary diagnosis of anxiety neurosis and was placed in the 'different' Group 2. Four patients in this group were given a follow-up diagnosis of hysteria and secondary depression and a chart review diagnosis of depression (3 patients) or anxiety neurosis (1 patient). Since the time of the initial chart review diagnosis of depression and anxiety neurosis and over the follow-up period, these patients accumulated sufficient somatic complaints and pseudoneurological symptoms to meet the criteria for the diagnosis of hysteria. We thought that it was not unexpected for patients with hysteria to present with overt depression or anxiety, which are the cause for admission to hospital as they overshadow the symptoms of hysteria initially. The seventh patient in this group had a chart diagnosis of probable drug abuse because she abused over-the-counter sleep preparations, but at the follow-up she was found to meet the criteria for depression and no longer abused drugs.

Group 3 consisted of patients who had too few symptoms to meet the criteria for a psychiatric disorder when the charts were reviewed, but who had enough symptoms for a diagnosis at follow-up. As specified under 'Results', 10 of the 14 patients in this group had symptoms suggestive of the follow-up diagnosis. It should be pointed out that this group contained 4 patients with a follow-up diagnosis of alcoholism; two of these died of liver cirrhosis. The frequency of alcoholism according to the chart information was 2 per cent, which was considered a marked underestimate.

The follow-up study supports the concept that the structured interview is superior to the conventional narrative history for establishing a diagnosis, as has also been reported by others (Meikle, Gerritse, 1970; Saghir, 1971). The structured interview made it possible to diagnose and confirm the diagnosis of the patients who had otherwise been undiagnosed. The structured interview also enabled us to suggest reasons why the patients were initially undiagnosed. These reasons have been discussed in the record study (Welner, Liss, Robins and Richardson, 1972); they were related to the young age of onset of the psychiatric illness, to the apparent high frequency of delusions and hallucinations in the depressed patients, to mixed clinical pictures, and to the lack of general agreement for certain psychiatric disorders, e.g. schizoaffective illness, drug dependency.

It should be pointed out, however, that of the 39 patients whose chart review diagnosis was 'undiagnosed' (Group 3 plus 25 of Group 1), 25 patients (64 per cent) were still undiagnosed at the end of the follow-up period. That is to say that if, after using rigorous diagnostic criteria, a group of patients cannot meet the criteria for a diagnosis, about two-thirds of them will remain so after a follow-up period.

Summary

One hundred and nine patients initially undiagnosed as in-patients and whose charts were reviewed by us were followed up (95 per cent follow-up). Using the same rigorous diagnostic criteria for research 79 (72 per cent) of the patients had the same diagnosis at the follow-up study as the chart review diagnosis (Group 1). Seven patients (6 per cent) had a different follow-up diagnosis than the chart review diagnosis (Group 2). Fourteen patients (13 per cent) who were undiagnosed when their chart was reviewed met the criteria for a diagnosis at follow-up (Group 3). Nine patients (8 per cent) that by criteria would not have been undiagnosed on chart review were undiagnosed at follow-up.

Of the 86 patients in Groups 1 and 2, in 92 per cent the diagnosis was the same for both chart review and follow-up diagnosis.

It is concluded that: (1) Using a structured interview it has been shown and confirmed that a large proportion of undiagnosed patients have established and diagnosed psychiatric disorders. (2) A structured interview is superior to a conventional narrative interview in establishing these diagnoses.

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