THE SOCIAL ORBIT OF PSYCHIATRIC PATIENTS*

By

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INTRODUCTION

THE trainee psychiatrist usually looks upon patients' relatives as a nuisance. Later, he realizes that an essential part of psychiatric treatment is to mitigate the effects of the patient's illness on his family, and to protect him from injudicious interventions on the part of his friends. Finally, it may occur to him that the patient's illness might be causally linked with recent or past psychological disturbances of close associates. A review of recent researches into the relationship between illnesses of individual patients and psychological disturbances in the people around them (Post and Wardle, 7) revealed that much of the work was inconclusive, largely because the investigators had been prematurely preoccupied with some theoretical issues of interpersonal psychiatry. It was, therefore, decided to approach the subject from a practical, clinical angle.

The present investigation took as its starting point the patient's treatment. If it were the case that, with some patients, close friends and relatives were as ill and disturbed as the patient himself, it would be logical to treat the whole situation rather than the individual patient, much as is often attempted in child psychiatry. At this stage, two preliminary questions required answering:

1. Taking the ordinary run of psychiatric patients, how often is it true to say that people in their social orbit are also psychologically disturbed? This question, then, concerns the prevalence of psychiatric disorders or abnormalities among close contacts of patients undergoing treatment.

2. Is it possible to pick out those patients with a high prevalence of disorders among their intimates who might be brought into the treatment situation? This resolves itself into a search for characteristics in the patients themselves which might indicate the presence of psychological problems in an unduly high proportion of their close contacts.

This paper is mainly concerned with answering these two questions.

METHOD OF INVESTIGATION

1. *Sampling*

(a) *Patients.* Patterns of family relationship of psychiatric patients tend to vary with age, social class, and diagnosis. For this reason, patients were selected as satisfying the following criteria: Age 25–55, membership of Social Class III (skilled manual and non-manual occupations), not suffering from schizophrenia, mental subnormality, or organic psychiatric disorders. Patients had to be married, sharing the home with their spouses. The sample consisted of 46 consecutive patients referred from certain postal districts near the Maudsley Hospital, who had been accepted for out-patient (19) or in-patient treatment (27). There were 16 men and 30 women. The choice of these criteria for selection ensured that the sample was representative of the majority of patients treated at the Bethlem and Maudsley Hospitals, in that they suffered from affective, neurotic, or mixed neurotic-affective conditions.

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(b) *Contacts.* The patient and his or her spouse were separately interviewed by the author, and the nature of the research was explained to them. The fact that co-operation was unlikely to have any beneficial therapeutic effects was not concealed. In a few instances the patient was too ill to be questioned, but usually both patient and spouse assisted the investigator in drawing up a relationship-chart, on which were entered all members of both families, as well as all non-related friends, acquaintances, and fellow-workers seen outside working hours.

To assess the mental health of all these people would clearly have been an impossible proposition, and it was decided to restrict the enquiry to persons who were deemed to have been of *recent emotional significance* to the patient. It was assumed that all members of his household, persons with whom he habitually shared his meals, fell into this category. In addition, both patient and spouse were independently asked to indicate on the relationship-chart any other persons who stood out from the rest by reason of having been recently either friendly or hostile to the patient to such a degree and frequency as to arouse more than momentary pleasure or displeasure. People were accepted as "Emotionally Significant Others" only when they had been nominated by both patient and spouse, unless the "significant other" was denied by the spouse for obvious reasons, e.g. a lover.

2. *Composition of Research Sample*

Six of 46 patients were lost; access to one patient was refused by his psychiatrist; 3 patients failed to co-operate, and 2 patients had to be excluded, because their diagnosis was changed to one of ? schizophrenia.

TABLE I

Distribution of Contacts in Terms of Relationship to Patients

Relationship	Total Number of Contacts	Seen within last year	Emotionally Significant Others
Spouses	40	40	40
Children	79	79	73
Other Consanguineous Relatives	225	156	49
Relatives by Marriage	438	281	12
Non-related Friends	148	139	24
Fellow-workers	22	22	5
	952	717	203

Table I shows that the 40 patients had been in more than superficial contact during the preceding year with 717 persons, and that 203 of them were rated as "emotionally significant others". (As this is a clumsy term, it will in the remainder of the paper be replaced by the terms "significant others", or just "contacts"). All spouses and all but a few of the patient's children were ascertained as significant others because they were members of the patient's household. About one-third of blood relations were rated as significant others, but only few non-consanguineous relatives, friends or colleagues were confirmed as intimate contacts. Only 23 significant others were not personally contacted, i.e. 11·3 per cent; but in 4 sufficient information was obtained to include them in certain parts of the analysis of findings.

Table I also indicates the extent to which patients were restricted in their social contacts to their families. Closer scrutiny revealed that 8 of 40 had no social contacts beyond exchanging the time of day with unrelated people, and that 23 patients had no emotionally significant friends or fellow-workers. The

impression that this sample of psychiatric patients was much more "family-centred" than the general population, in that 25 per cent had no social life outside the family and 58 per cent had no intimate unrelated friends, was supported by discovering that Willmott and Young (8) reported only about 30 per cent of their subjects living in a London suburb as *not* having received visits from non-related persons during the preceding week. Frequency of social contact had been noted in our sample, and was much lower than in Willmott and Young's subjects; but differences in social class, sex, and age distribution, as well as of locality, made searching comparison between our psychiatric patients and their normals unmeaningful.

Patients varied considerably in the number of significant others each possessed. Excluding their spouses and children, there was a total of 91, i.e. 2·3 significant others per patient. Seven had no intimate contacts outside the immediate family group and 11 had only one; only 5 patients had as many as 4 or 5 additional significant others in their entourage.

3. *Psychiatric Assessment of Significant Others*

The adult contacts were individually seen by the social psychologist (Mrs. Joan Wardle), who recorded verbatim their replies during questionnaire-structured interviews. An initial questionnaire concerned the subject's past and present attitude towards the patient and his illness. A second questionnaire attempted to assess the subject's own mental health by eliciting information on the following items: problems remembered from childhood, schooling, employment record, amount of illness in life, with special reference to the last five years, frankly psychiatric disorders, marital history, role-playing in marriage, relationship to children, and (in ever-married subjects only) sexual adjustment. The first part of Heron's Two-Part Personality Measure (3) was also administered to all adult subjects.

Children and adolescents under the age of seventeen were not personally seen, but a questionnaire drafted by Dr. Kenneth Cameron was completed by the interviewer with one of the parents. It covered pregnancy, birth, feeding, milestones, relations of the child to the family, intelligence, personality, neurotic symptoms, and behaviour disorders.

Most subjects responded positively to the interview; in fact, the social psychologist frequently had difficulty in preventing the occasion from turning into a therapeutic session.

4. *Quantification of Psychiatric Assessments*

The first part of Heron's Two-Part Personality Measure yields numerical scores classifying subjects as "probably well-adjusted", "probably maladjusted", and "doubtful".

The Questionnaires for Children and Adolescents were submitted to two psychiatrists with special experience with children. They were rated independently on a six-point scale by marking one of six blank squares of which only the first and sixth were labelled "No signs of disturbance or maladjustment" and "Very likely to be severely disturbed or maladjusted", respectively. The investigation had to be interrupted half-way owing to the author's illness, and on resumption one of the assessors was unable to continue. However, ratings by both child psychiatrists were available for comparison in the first 24 contacts under 17. There had been complete agreement in 9; in 13 the raters differed by one point, and by two and three steps, respectively, in only one subject each. Except in one instance, the psychiatrist who had to drop out had scored discrepantly from his colleague by rating the child as more disturbed. In the

analysis of our findings we shall make use of the second psychiatrist's scores, who possibly under-rated the severity of the disturbances.

To obtain a quantified assessment of the mental health of adult contacts and patients, the social psychologist prepared precis of the interview responses, covering life history, physical and mental health, as well as marital adjustment. These were submitted, identified by code numbers only, to two independent assessors, both consultant psychiatrists, and the author. They were asked to rate the subjects' personality viewed apart from any illness on a continuum "well functioning" to "severely maladjusted", using the same six-point rating technique which had been employed for contacts under the age of 17. In addition, the assessors were asked to give an opinion as to whether the subject had at any time suffered from an actual psychiatric illness by ringing one of three assertions: "no", "doubtfully yes", and "yes".

Again, one of the assessors had to drop out when the investigation was resumed, but ratings by all three psychiatrists were available for the first 90 adult significant others. The two independent assessors agreed fully in 45 contacts, and disagreed by one point only in 37. They never disagreed by more than two points, this occurring in only 8 instances. Complete agreement between the independent assessors and the author occurred in 28 and 38 cases respectively, and he tended to rate subjects as more maladjusted than did the two other psychiatrists. Similar trends were found in the assessments as to whether or not an actual psychiatric illness had occurred. Fortunately, the assessor who tended to rate midway between the other assessor and the author was the one who was able to continue with the investigation, and his ratings were used in the analysis. They will be referred to as *Independent Ratings* in the remainder of this paper.

The independent raters had not been asked to venture opinions concerning diagnoses on the basis of the interview precis submitted to them. The author had at his disposal the original interview records, the patients' case notes, and information about significant others obtained during his interviews with the patients and their marriage partners. On the basis of all this information he classified significant others as free from psychological disorders, as having exhibited them in the past only, or as evincing psychological disturbance at present, i.e. concurrently with the patient's illness. His information was in the majority of cases not sufficiently full or reliable to arrive at precise diagnoses,

TABLE II

*Psychosomatic Disorders in Significant Others over the Age of 17**

	Number of Subjects
Dyspepsia	4
Peptic Ulcer	2
Colitis	1
Asthma	1
Thyroid Trouble	1
Non-crippling Rheumatism and Backache	3
Neurodermatosis	3
Menstrual Disorder of some severity	2
Excessive Vomiting throughout Pregnancy	1
Epilepsy	2
Migraine	1
	21

*Several subjects reported more than one condition, but only the leading one is listed in each case.

but he felt confident in allocating contacts to either psychotic, neurotic, or psychosomatic categories. His use of the term "psychosomatic" is given in Table II. This classification of adult contacts will be referred to as *Author's Diagnostic Ratings.*

Results of Investigation

1. *Prevalence of Psychological Disturbances in Significant Others according to Method of Ascertainment*

Originally, Heron (3) evolved his personality measure by comparing 27 "hospital neurotics" with 251 "normals". At a later date (personal communication) he modified his method of rating after examining a further 207 volunteers belonging to Social Class III, and suggested that subjects scoring 0–9 points were "probably well-adjusted", that scores 10 and 11 indicated "doubtful" adjustment, and that scores of 12 points and over were obtained by persons who were "probably maladjusted".

Table III gives the distribution of adult significant others classified in accordance with their Heron scores in comparison with the author's diagnostic ratings. It is apparent at a glance that there was considerable disagreement

Table III

Author's Diagnostic Classification compared with Scores on Heron's Personality Measure of Adult Significant Others

(a) *Disorders concurrently present with Patient's illness*

	Heron Scores				
Concurrent Disorder according to author	0—9 ("normal")	10 and 11 ("doubtful")	12/+ ("maladjusted")	Not personally interviewed	Totals
Psychotic	2	—	1	1	4
Neurotic	20	7	6	1	34
Psychosomatic ..	7	—	3	2	12
None	63	8	4	—	75
	92	15	14	4	125

(b) *Disorders at any time*

	Heron Scores				
Disorders at any time according to author	0—9 ("normal")	10 and 11 ("doubtful")	12/+ ("maladjusted")	Not personally interviewed	Totals
Psychotic	5	1	1	1	8
Neurotic	35	10	8	1	54
Psychosomatic ..	14	1	4	2	21
None	38	3	1	—	42
	92	15	14	4	125

between these two methods of ascertainment. True enough, only 4 of the 42 subjects rated as never having suffered from any psychological disturbances by the author had Heron scores suggesting maladjustment, but on the other hand 40 of the 62 persons thought to have exhibited past or present neurotic or psychotic symptoms scored "probably well-adjusted". Comparison between Heron scores and Independent Ratings of adult contacts gave similar discordant results. The patients themselves were also given Heron's Personality Measure, and the fact that 12 of these 40 people at the time when they were receiving psychiatric treatment scored as "probably well-adjusted", that 8 were rated "doubtful", and only 20 as "probably maladjusted", demonstrates that Heron's inventory is not a very efficient measure for identifying psychologically ill persons.

Probably, the Cornell Medical Index would have proved a better instrument for our purpose, but unfortunately Culpan, Davies and Oppenheim's (2) paper demonstrating its usefulness and reliability in an English sample only appeared when the present investigation was well under way.

Table IV demonstrates the extent of agreement between the Author's Diagnostic Ratings and the Independent Ratings of personality and occurrence of actual psychiatric illness in adult contacts. There was complete agreement on the absence of past or present definite illness in 42 contacts, and the independent raters disagreed in only one of 8 patients called psychotic by the author. (One subject was not interviewed, because he was a patient in a mental hospital, suffering from an arteriosclerotic paranoid psychosis).

TABLE IV

Author's Diagnostic Classification compared with Independent Ratings of Adult Significant Others

(a) *Personality viewed apart from illness*

	Independent Ratings					
Disorder at some time according to author	Well adjusted A	B	Maladjusted C	D	Not personally interviewed	Totals
Psychotic	1	3	1	2	1	8
Neurotic	11	16	20	6	1	54
Psychosomatic ..	8	7	3	1	2	21
None	28	12	1	1	—	42
	48	38	25	10	4	125

(b) *Actual Symptoms having occurred*

	Independent Ratings				
According to author's classification	No Illness	Doubtful Illness	Definite Illness	Not personally interviewed	Totals
Psychotic	1	—	6	1	8
Neurotic	28	17	8	1	54
Psychosomatic ..	14	5	—	2	21
No Symptoms, ever ..	41	1	—	—	42
	84	23	14	4	125

Disagreement was thus limited to persons labelled as at some time exhibiting neurotic or psychosomatic symptoms by the author. It was thought that this disagreement was mainly due to difficulties in distinguishing between neurotic personality traits and minor psychological symptoms, the familiar problem of defining at what stage personality difficulties constitute an illness.

Combining degrees of personality maladjustment with the independent classification of whether or not an actual illness had ever occurred, three comprehensive independent groupings were obtained: (1) No psychological abnormalities, (2) Slight psychological abnormalities, and (3) Definite psychological abnormalities present. Table V demonstrates that the independent raters discovered psychological abnormalities in only 6 of the 42 subjects deemed normal by the author, and that only 5 of the author's psychotics and neurotics were classed as free from psychological abnormalities by the independent raters. Disagreement on the status of persons diagnosed as psychosomatic by the author is not surprising in view of the problematic nature of this concept.

It will be recalled that in the case of contacts below the age of 17 only one method of ascertainment was used: rating by a psychiatrist of questionnaires

TABLE V

Comprehensive Independent Ratings compared with the Author's Diagnostic Classification of Adult Significant Others

(a)

Disorders at some time according to author's classification	*Independent Ratings* No Psychological Abnormalities	Slight Psychological Abnormalities	Definite Psychological Abnormalities	Not personally interviewed	Totals
Psychotic	—	2	5	1	8
Neurotic	5	12	36	1	54
Psychosomatic ..	6	6	7	2	21
None	26	10	6	—	42
	37	30	54	4	125

(b)

Author's diagnostic classification	*Independent Ratings* No or Slight Psychological Abnormalities	Definite Psychological Abnormalities	Totals
At some time, symptoms	31	48	79
At no time, symptoms	36	6	42
	67	54	121

$\chi^2 = 23{\cdot}81$; D.F. = 1; $P < {\cdot}001$

administered to one of the parents. He rated 34 per cent of children and adolescents as probably seriously disturbed, 46 per cent as possibly or slightly disturbed, and only 20 per cent as entirely free of problems.

2. *Prevalence of Psychological Disturbances in Adult Contacts of Psychiatric Patients compared with the General Population*

Fifty of 125 (40·0 per cent) significant others were diagnosed by the author as suffering from psychological symptoms at the time of the patients' illness (Table IIIa). After excluding psychosomatic disorder, the proportion fell to 30·4 per cent. In the author's opinion, 83 of 125 contacts (66·4 per cent) had at some time during their lives evinced psychological disturbance, this proportion dropping to 49·6 per cent after excluding psychosomatic symptoms (Table IIIb). Only 8 contacts (6·4 per cent) were held to have suffered from psychotic illnesses.

It will be recalled that the independent raters were not asked to suggest any diagnoses or to give an opinion as to whether disorders in significant others had been present at the same time as the patients' illnesses. They rated 54 of 121 contacts (44·6 per cent) as showing presence of definite psychological abnormalities. In 30 (24·8 per cent) evidence was only slight, and 37 (30·6 per cent) were deemed free of all psychological abnormalities (Table V). Psychological disturbances were thus strongly suspected in somewhere between 44·6 and 66·4 per cent of the emotionally significant contacts of our sample of psychiatric patients.

Estimates of the occurrence of mental disorders in people outside psychiatric institutions vary widely. To give only a few examples, Pasamanick *et al.* (6) investigated the prevalence of these conditions in a representative sample of the non-hospitalized white population of Baltimore. For the middle-income group they found the following rates: psychoses, 8·7/1,000; psychoneuroses, 55·4/1,000; psychosomatic disorders, 18·2/1,000, i.e. a total of 82·3/1,000. The authors felt that theirs was an under-estimate, and Lin (5), comparing previous investigations employing the census method with his own,

found that the prevalence of all mental disorders varied between 10·8 and 195·5/1,000. This figure was given by an investigator in a Norwegian village where he had been working for three years. Rates for the more easily identified major psychoses only varied between 3·8 and 14·3/1,000. In the Stirling County Study, which, like ours, employed a far more intensive method of case finding, Leighton (4) reported that 44 per cent had shown at one time or other "symptoms that were almost certainly indicative of psychiatric disorders (had been to mental hospital or had a nervous breakdown or described anxiety attacks, for example)". In 7 per cent disability was estimated as negligible, and thus the rate of psychiatric disorders was given as 37 per cent of adults over eighteen years old. A further 21 per cent had psychosomatic disorders or rather vague psychiatric histories.

Values given by these workers, using intensive methods, are not much lower than those obtained in the present study, and this might suggest that psychiatric disturbances only occurred a little more frequently among significant others of psychiatric patients than in the general population. However, it remained possible that the psychiatrically disturbed persons in our sample were not evenly distributed, but that they tended to cluster around patients of a certain type rather than of another.

3. *Distribution of Psychologically Disturbed Significant Others*

In the case of each patient, the number of contacts who had been assessed as having at some time shown psychological disturbances was ascertained. It will be recalled that a high, possibly exaggeratedly high, prevalence of disorders was found by the author among the 125 adult contacts of 40 patients. In Figure 1 each patient is plotted in terms of number of his significant others against the number of those contacts who had been diagnosed as at some time "psychotic", "neurotic", or "psychosomatic". Three patients possessed only one single adult contact, their spouse, and Figure 1 demonstrates that they had

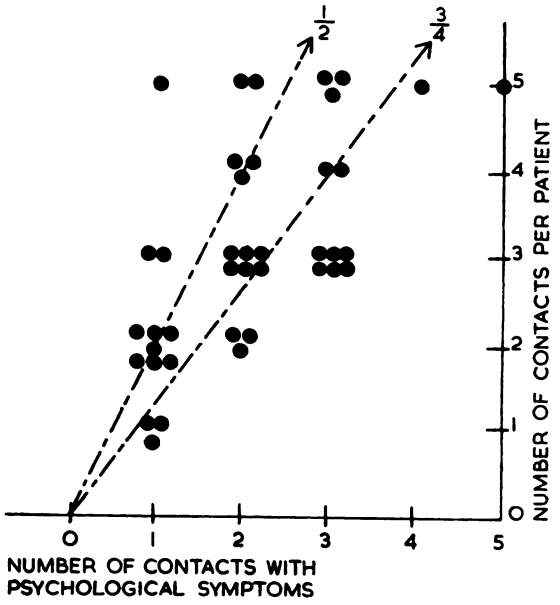

FIG. 1.—Proportion of Contacts per Patient with Psychological Symptoms according to author's diagnostic classification (40 patients with 125 adult contacts).

all three of them at one time shown psychological symptoms. The remaining patients mustered from 2 to 5 adult contacts each. Complete absence of psychologically disturbed persons in the close entourage of patients was not encountered in a single instance, and in 13 cases all contacts had been given psychiatric or psychosomatic diagnoses. Up to one-half of the significant others of 15 patients carried psychiatric or psychosomatic labels, and in 16 more than three-quarters of contacts had at some time been affected. The suspicion that "psychopathologically tainted" persons tended to cluster around certain patients is therefore strengthened.

This was further confirmed by the findings in 180 child and adult contacts of patients, whose mental health had been assessed by independent raters (Figure 2). Only one patient possessed but a single close contact, and 3 had only 2. By contrast, one patient possessed 8, and another 2 had 7 significant others.

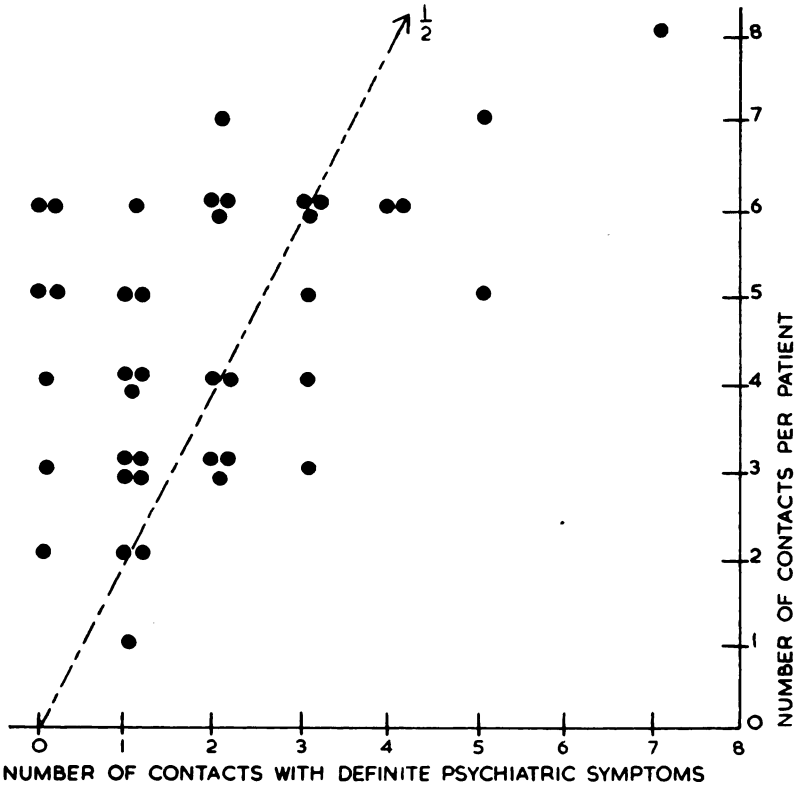

FIG. 2.—Proportion of Contacts of Patients independently rated as exhibiting Definite Psychiatric Symptoms (40 patients with 180 significant others of all ages).

The remaining 33 patients had between 3 and 6 emotionally significant persons, each. Seven patients had in their inner orbit no persons independently rated as showing "definite psychological abnormalities", and in the case of only one patient were all but one of his contacts affected. Up to one-half of contacts were rated definitely abnormal in 28 patients; the remaining 12 patients were each distinguished by a larger proportion of affected contacts.

An attempt was made to discover whether there were any characteristics in the patients' background or clinical picture which were associated with high or low prevalence of psychologically abnormal significant others. As patients differed in the number of close contacts each possessed, and as significant others belonged to different age groups and bore different relationships to the patients, the discovery of group trends only was aimed at. For this reason, the findings will be given in summary form only.

A series of tables were drawn up, in which frequencies of psychologically affected significant others were compared for groups of patients with and without certain characteristics. A considerable number of variables of patients was examined, among them childhood experiences, school and work record, physical health, previous mental health, roles in marriage, duration of present illness, mental symptomatology and form of psychiatric treatment employed: in- or out-patient, psychotherapy, drug, or electroconvulsive treatment. Only a few characteristics of patients tended to be associated with a high prevalence of psychological abnormalities of varying degree in their significant others. (1) Reports by patients of unhappy childhood experiences (trend not statistically significant). (2) Reversal of customary roles in marriage; i.e. patient's wife the dominant partner, or husband submissive ($\cdot 05$ level of significance not reached). (3) Unsatisfactory sex adjustment to marriage (again, $P > \cdot 05$). (4) Patient's illness frequently recurring or chronic, as against being characterized by a recent and acute onset ($P < \cdot 05$). (5) Clinical picture dominated by the presence of phobic, obsessional, or hysterical symptoms ($P < \cdot 005$). (6) A clinical picture of only mild depression, in the absence of guilt or persecutory mental content as well as of hypochondriacal ideas of delusional severity ($P < \cdot 02$). (7) Patient was not recommended to have electro-convulsive therapy ($P < \cdot 001$).

This type of patient, with a relatively mild affective disturbance without guilt or self-reproach but with mild hypochondriasis and some phobic, obsessional, or hysterical symptoms, is well known to most psychiatrists. Such patients, often called "neurotic depressives", tend to remain ill over long periods or to take a variable course with frequent recurrences; ECT is usually disappointing in its results.

TABLE VI

The Relationship between certain Clinical Features of Patients and the Frequency of Concurrent Disorders in their Adult Significant Others

Features of Patients associated with high prevalence of disorders in their contacts

Proportion of Significant Others of Patients affected	0 present	1 present	2 present	3 present	4 present	Totals
None	4	4	1	1	1	11
Up to one-half	1	1	3	6	4	15
More than one-half	0	1	0	8	5	14
	5	6	4	15	10	40

It is of considerable interest that patients of this kind tended to be surrounded by an unduly large number of other psychologically disturbed persons. Twenty-nine patients exhibited at least 2 of the 4 features which, as we have just shown, tended to be significantly often associated with a high prevalence of disorders in close contacts. Twenty-six of these patients had among their close entourage adult persons classified by the author as showing psychiatric or psychosomatic symptoms at the same time as the patients (Table VI). None, or only one of these features were present in 11 patients, and 8 of them had no concurrently affected significant others.

4. *Some Impressions concerning possible Relationships between Illnesses of Patients and Disturbances of their Significant Others*

As patients with a largely neurotic symptomatology and only mild affective disturbances pursuing a chronic or fluctuating course are often not helped by standard psychiatric treatments, and as they tend to have many other psychopathologically affected persons among their close associates, the suggestion arises that here we may be dealing with a group where treatment of the "total situation" rather than of the individual patient might be indicated. Before accepting the underlying assumption that these patients and persons in their inner orbit caused one another's disturbances, we first of all will have to meet the obvious objection that people around the patient were psychologically disturbed primarily because they shared the patient's hereditary predisposition towards developing psychiatric disorders.

TABLE VII

Distribution of Psychological Abnormalities among Consanguineous and Non-consanguineous Significant Others

Independent Ratings	Consanguineous	Non-consanguineous	Totals
No psychological Abnormalities	26	23	49
Slight psychological Abnormalities	36	21	57
Definite psychological Abnormalities	41	33	74
	103	77	180

In fact, comparing emotionally significant blood-relations with relatives by marriage and unrelated friends (Table VII) indicated that the proportions of psychologically abnormal persons in these two groups were remarkably similar. This suggests that the occurrence of disorders in close contacts cannot be explained in terms of shared heredity alone. Furthermore, the offspring of patients whom most psychiatrists would call psychotic, because they exhibited recent severe depression, feelings of guilt and self-reproach and/or delusional hypochondriasis, were far less often psychopathologically affected than the children of patients lacking these features. In the case of "non-psychotic" patients with an average number of 2·2 children per patient, 42·8 per cent were independently rated as definitely disturbed or definitely psychologically abnormal. By contrast, only 14·3 per cent of children of "psychotic depressives" (2·1 children per patient) were rated as abnormal. This figure is strikingly similar to the 15·5 per cent incidence of definite neurosis in the offspring of Cowie's (1) psychotic affectives and the 11·1 per cent incidence of neurosis in the children of her normal control group. Almost all the children in the present sample were below the age at which inherited manic-depressive predispositions manifest themselves in actual disturbances, so unless one makes the assumption that inherited neurotic trends are unmasked at a much earlier age, interaction with a persistently ill parent rather than heredity would seem to be the more likely mechanism of transmission.

Unfortunately, the dynamics of interpersonal relations could not be adequately studied at the present stage of our investigation, but some of our data had a bearing on this subject and may be briefly evaluated. They are mostly based on the author's subjective impressions, and concern first of all the 50 adult significant others who had been judged to show psychiatric or psychosomatic symptoms concurrently with the patients' illness. No recent psychopathological interaction was discovered in 24 contacts. In 11 there was slight evidence for this kind of interaction, but in 15 there was a strong suggestion

that the psychological disturbance of the significant other person was in some way linked with that of the patient. It was thought that in 5 instances patients had induced symptoms in others, that in another 5 contacts had induced the patients, and that in the remaining 5 there was some more complex form of mutual interaction. Only one of the 15 contacts whose symptoms were closely connected with the patient's was a blood-relative; in the remainder genetic-hereditary factors were excluded. Mutual interaction in the area of psychological disturbance was found only once among the 11 patients with psychotic symptoms: there was convincing evidence that a husband had induced mild anxiety symptoms in his wife. By contrast, in the 29 patients with symptomatology of neurotic severity there were 25 instances of interaction, and in 14 contacts the evidence for this was strong.

All adult subjects were asked whether the patient's illness had affected them in any way. Replies were ranked as "denies any upset", "worried about patient", and "disturbed by patient's illness". Just under half of the contacts gave the conventional response of being worried. Significant others with concurrent disorders admitted that the patient's symptoms were disturbing them more frequently than did those with no concurrent disorders. The reverse, complete denial of being in any way affected, was also seen most frequently in this group of contacts whose psychiatric and psychosomatic symptoms were present at the same time as the patients'. Women alleged more often than men that they were disturbed by the patients' illness, and more women than men had been assessed as exhibiting symptoms concurrently with the patient's disorder. Significant others, in whose case some degree and kind of mutual interaction with the patient had been discerned, also claimed more frequently than others that his/her illness had disturbed them. Regardless of sex, contacts with concurrent symptoms tended to be less sympathetic towards the patient and his illness than were the persons who had had psychological troubles in the past only, or at no time. None of these impressions were statistically significant, but they all point to the suggestion that persons who had psychological problems or symptoms concurrently with the patient's disorder were either aware of some interaction having occurred, or tended to deny completely being in any way concerned with the patient's condition.

Concluding Summary

The prevalence of psychiatric disturbances among persons who, at the time of their illness, had been emotionally significant to 40 patients with affective, mixed affective-neurotic, and neurotic illnesses was determined. Depending on the method of ascertainment, between 42·6 and 44·6 per cent of adult contacts were rated as psychologically disordered at some time. In the author's opinion 40·0 per cent had shown psychiatric or psychosomatic symptoms concurrently with the patients' illnesses. Over two-thirds of psychologically abnormal adults had exhibited neurotic difficulties; about one-quarter had psychosomatic symptoms, and only one-tenth had at one time been suffering from psychoses. Among contacts under the age of 17, only 20 per cent had been judged entirely normal, 46 per cent were slightly, and 34 per cent more seriously disturbed.

Psychiatrically affected children and adults tended to cluster around patients with neurotic and mild affective symptoms of long duration or frequent recurrences—patients in whose treatment their psychiatrists tended not to employ electro-convulsive therapy. To a statistically insignificant extent, patients with a high prevalence of contact psychopathology also tended to report unhappy

childhood experiences and to be maladjusted in marriage in the areas of sexual functioning and role-playing.

A clear indication that persons in the patient's entourage had been as ill as the patient, or had been partly responsible for his symptoms, was found in only 5 instances among these 40 patients. Other forms of psychopathological interaction were also relatively uncommon. The presence of psychological disturbances in a high proportion of the significant others of certain patients seemed more often attributable to their being drawn towards persons with psychiatric propensities, with the factor of a common heredity playing an additional, but subordinate, role. A more intensive study of the relationship between patients and those close to them might have brought to light important interpersonal dynamic causal factors more frequently.

Whatever the finer mechanisms at play, patients suffering over long periods or at frequent intervals from neurotic or mixed neurotic-affective symptoms have been found to be in close emotional contact with many disturbed children and unstable adults, but with relatively few psychologically well-adjusted people. It does not seem unreasonable to suppose that the recovery or rehabilitation of patients in intimate contact with disturbed persons may be seriously impeded, and it should be well worth while to study experimentally the effect on these patients' progress of extending psychiatric treatment to include people in their social orbit.

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