be promised by operation, or by operation combined with injection, in this type of case.

3. In a very small proportion of cases injection alone is not entirely successful, and ligation of the internal saphena vein below its upper end is indicated as an adjuvant; but no evidence sufficiently strong has yet been published to justify primary saphena ligation in preference to primary injection with salicylate-saline solution.

4. The classified results of other methods of injection after a three-year interval would, if published, advance the subject considerably. The results given by the non-guidable solutions—for example, quinine, sodium morrhuate, and the sugars—are especially called for.

5. Experience tends to show that almost all cases which have failed to react to other solutions can be successfully treated with salicylate-saline solution.

6. The converse is not true, but sodium morrhuate appears to answer well in short lengths of vein when salicylate fails.

7. Longer intervals than those commonly given between injections are evidently necessary if the accepted pathology of sclerosis is to be the guiding principle in treatment.

8. Improvements in the pathological diagnosis of cases unsuccessfully injected may be expected from the application of the newer radiological methods of investigation.

9. Unna's paste bandage applied in the hydrostatic manner gives much better results than are obtained by the modern elastic-pressure applications.

Our thanks are due to the members of the staff of the Aberdeen Royal Infirmary for their help on many occasions.

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The dietetic department of the London Hospital is to be enlarged, and the new accommodation will include nine beds for patients and four private rooms, a laboratory, a special kitchen, and a rest room for patients not entirely confined to bed. There are already over 9,000 patients on the books under treatment in this department of the hospital.

THE AFTER-RESULTS OF PSYCHOTHERAPY IN 500 ADULT CASES

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The attention of the medical profession has, during recent years, been increasingly directed towards psychotherapy, but the claims for this method of treatment are sometimes criticized on the ground that they are too often based on successes in individual cases. This branch of medicine, however, is of such recent growth that it is only now becoming possible to publish series of case results that are at all comparable with those recorded from other medical fields.

Since the foundation of the Institute of Medical Psychology in 1920 as the Tavistock Clinic, the number of patients treated there each year has steadily increased. It has therefore been possible to collect from the Institute's records a considerable volume of material by which the effectiveness of psychotherapy as a remedial measure may be judged. In this paper the results of this method of treatment as applied to 500 adult cases at the Institute are set out in tabulated form, together with explanatory remarks and comments.

The results of psychotherapy cannot fairly be judged by the patient's condition at the termination of treatment. He may then appear very much improved and his symptoms may have completely disappeared, but he has still to prove his capacity to withstand without further breakdown the stresses that life will inevitably bring. Only time can show whether treatment has given him this capacity. Further, a serious criticism made of psychotherapy is that, although benefit may be apparent, the improvement is really due to the patient's reliance and dependence on the physician, and is not likely to be lasting. In fact, it has been suggested that psychoneurotic symptoms indicate an inherent personality defect which cannot be "cured." These criticisms can only be conclusively answered by collecting on a large scale information concerning the remote, as well as the immediate, results of psychotherapy. In this paper a step is made towards the provision of such information. The valuable statistics recently published by Neustatter from the Maudsley Hospital (*Lancet*, April 6th, 1935) give results at the end of treatment only, and it is hoped that the after-results in his group of cases may later become available.

With these considerations in mind we have followed up as a routine all patients discharged from treatment at the Institute since 1930. This "follow-up" covers a period of three years after discharge, and during this time at least three reports on the patient's condition have been collected. The information is usually obtained by letter from the patient himself or from his private doctor. In some cases, however, a return visit is made to the physician who treated him at the Institute, and in others a social worker calls at his home. Whenever possible information from several of these sources is considered. If the patient himself, his relatives and friends, or the Institute physician give continuously favourable reports it is fair to judge the result of treatment as successful.

Assessment of Results

At the termination of treatment a summary of the case is made by the physician, and on his judgement the patient is placed in one or other of four groups, under

the heading "condition on discharge." At the end of the follow-up period the case may either remain in the same category or may be promoted or degraded according to the reports received.

The four headings used for statistical purposes are: (1) *Much Improved*. The patients are free from symptoms, leading normal lives, and usefully employed. They are able to meet difficulties with self-confidence and courage and without relapse into neurosis. (2) *Improved*. Reports indicate that the patients have been much benefited by treatment. They have become self-supporting members of the community and are able to withstand the ordinary stresses of everyday life, but are liable to show some return of symptoms if they have to meet a particularly difficult situation such as family bereavement or unemployment. Under such stresses they do not relapse into a "breakdown," but may need to return to the Institute for one or a few interviews to assist their readjustment. (3) *Slightly Improved*. Those who have benefited to some extent from treatment, but have never become free from all symptoms and are liable to break down again under strain. (4) *Not Improved*.

Methods of Treatment

The majority of patients are referred to the Institute in the first place by their private doctors; others are sent from hospitals, social organizations, and the police courts. Every new patient is seen for a preliminary psychiatric interview by a senior member of the staff, and is also examined from the physical point of view by one of the general physicians attached to the Institute for the purpose. The case is then carefully considered, and, if thought suitable for psychotherapy, is placed on the waiting list. Private doctors, where such exist, are communicated with, and any treatment recommended on physical lines is meanwhile carried out in co-operation with them. Unsuitable cases are referred back to their doctors with suggestions as to other forms of therapy or disposal.

Patients under treatment are seen by appointment for interviews of one hour. According to their particular needs they attend once, twice, or three times a week, and very occasionally more often, but in the later stages their attendance is often cut down to more widely spaced interviews. Private doctors are informed from time to time of their patients' progress, and detailed reports of the results are sent to them when treatment terminates. Auxiliary methods, such as attendance in the occupational department, speech-training, or help from the social workers are used in appropriate cases. If a patient is at work evening appointments are given, so that his employment need not be interrupted. A small number of patients are admitted to the in-patient department, organized as a hostel, for the whole or part of their period of treatment. This arrangement is sometimes made as a therapeutic measure, to remove them from an adverse environment and to give the advantages of life in a small community, or else because their symptoms prevent travelling. Others are admitted because they live too far away to make frequent journeys to the Institute. All patients, except the few who are completely destitute, pay fees proportionate to the size of their incomes, with a maximum of 7s. 6d. per interview. This arrangement is made not only to assist the Institute's finances, but also on account of the therapeutic value of paying for treatment, even if a few pence weekly is all that a patient can afford.

The different psychotherapeutic measures used are too varied to admit of statistical tabulation, and in some difficult cases several different methods are required in the course of treatment. The majority of patients are treated by comparatively short methods—such as, re-education with explanation of symptoms—but deep analysis is undertaken if necessary, and suggestion or hypnosis is employed when appropriate.

The question of length of treatment deserves serious consideration, for the number of applications to the Institute is very large, and it is important that no patient should be given lengthy treatment unless it is essential. The question is also serious from a wider point of view. Halliday has recently published (*British Medical Journal Supplement*, March 9th and 16th, 1935) a survey of 1,000 patients referred to him as regional medical officer under the Insurance Acts on account of prolonged incapacity. He estimates that roughly one-third of these patients are in reality incapacitated by psychoneurotic symptoms. If, as is probable, this proportion holds good throughout the country, the number of such patients requiring treatment is so great that it behoves all those concerned to use the shortest methods compatible with efficiency in dealing with their cases. Suggestions as to the particular method of treatment to be adopted are made by the physician who sees a patient for the preliminary psychiatric interview at the Institute. The subsequent conduct of the case is entirely at the discretion of the physician undertaking the treatment. Clinical assistants, however, and those taking a year's course of post-graduate training in the theory and practice of psychotherapy, work under the supervision of a senior colleague. There is also an arrangement by which any member of the staff who has seen a patient for fifty interviews must discuss the case with a colleague, in order to get a second opinion as to the advisability of continuing the treatment. Statistics showing the standard of results achieved by each doctor are collected and are kept up to date. In these ways efforts are continually made to improve the quality of work and to safeguard against the danger of wasting time on prolonged treatment of unresponsive cases.

Mention has already been made of the *précis form* filled in by each physician on discharging a patient. The form is identified by initials and a serial number, the patient's name being omitted. On it is stated the diagnosis, symptomatology, hereditary and environmental factors in the aetiology, the method of treatment employed, number of attendances, the chief points of interest arising, and, finally, the result on discharge. These summaries have been used for the compilation of the statistics presented in this paper.

Statistical Material

The group of 500 adult patients covered by these statistics were treated at the Institute between October, 1928, and the end of 1931. Cases have been taken consecutively from the records, omitting only those whose follow-up has not extended for three years after discharge. During this period 710 adult patients were discharged from treatment and 210 of these were lost sight of, so that it has been possible to follow up 70.4 per cent.

Patients who disappear from observation before the end of the follow-up period form a difficult and disappointing factor in recording results. Some were untraceable owing to unnotified change of address, and others, although written to at least twice, failed to reply. It might seem that patients who had received little or no benefit from their treatment would be more likely to lose touch with the Institute than those who had done well, but careful consideration of the summaries of the untraceable cases does not confirm this supposition. They do not belong preponderantly to any one group as regards either diagnosis or result of treatment as assessed on discharge, and a number of them reported favourably for one or two years before ceasing to reply. In this connexion it is perhaps worth mentioning that unimproved neurotic patients are often only too willing to take the opportunity of pouring out an account of their persistent symptoms, and of expressing their dissatisfaction with an institution that has failed to help them, whereas those who are freed

from symptoms are sometimes glad to bury the past and to lose touch. The point in question is, however, of great importance, for if unimproved patients do preponderate among those who disappear from the follow-up record the 500 cases upon which these statistics are based are not strictly unselected, and the results will appear to be unduly favourable. The following figures are therefore given to show the results of treatment in the untraceable cases, as estimated by the physician at the time of discharge:

	Per cent.		Per cent.
Much improved ...	18.1	Slightly improved ...	25.7
Improved ...	40.0	Not improved ...	16.2

These figures do not differ materially from the comparable figures which apply to the 500 cases in which the follow-up has been complete. The vitiation of results by untraceable patients thus appears to be less serious than might at first be thought.

risers during the follow-up period from 22.8 per cent. to 28 per cent. After three years 5.3 per cent. of improved cases are promoted into the much improved category, and 9.5 per cent. of improved cases relapse into the two lower categories. These changes account for the apparently large fall, from 42.8 per cent. to 27 per cent., in the figures for improved cases. The number in the slightly improved group falls from 17.4 per cent. to 5.2 per cent. This is almost entirely due to relapse, only a negligible number of these cases being promoted to the higher categories as a result of follow-up reports. These results compare favourably with those published by Neustatter. He assesses his patients on discharge as "considerably improved," "moderately improved," "slightly improved," or "unimproved." In his series of fifty cases thirty-two (64 per cent.) were judged improved, but these include those slightly improved as well as the two more favourable groups. The comparable figure from the

TABLE I.—Results of Treatment on Discharge and after Three Years

Diagnosis	Number of Cases		Condition on Discharge				Condition after 3 Years							Percentage Relieved	
			Much Improved	Improved	Slightly Improved	Not Improved	Much Improved	Improved	Slightly Improved	Not Improved	Further Treatment at Institute	Further Treatment Elsewhere	Died	On Discharge	After 3 Years
Anxiety states	220	% 44	72	104	30	14	74	67	11	32	8	22	6	80.0	64.0
Hysteria	75	15	13	25	17	20	17	21	6	16	1	14	—	50.6	50.6
Obsessional states	60	12	9	25	14	12	19	12	1	17	8	3	—	56.7	51.7
Depressive states	30	6	5	11	5	9	10	5	2	7	—	3	3	53.3	50.0
Sexual difficulties	30	6	6	16	4	4	9	13	—	3	2	3	—	73.3	73.3
Paranoid states	20	4	1	7	2	10	3	4	—	10	—	3	—	40.0	35.0
Delinquency	20	4	3	9	3	5	1	5	3	9	—	2	—	60.0	30.0
Schizoid states	15	3	1	7	4	3	2	1	2	9	—	1	—	53.3	20.0
Backwardness	15	3	1	4	6	4	1	5	—	7	—	2	—	33.3	40.0
Epilepsy	6	1.2	1	2	1	2	1	—	—	2	—	3	—	50.0	16.6
Alcoholism	5	1	2	1	1	1	2	1	1	1	—	—	—	60.0	60.0
Migraine	4	0.8	—	3	—	1	1	1	—	2	—	—	—	75.0	50.0
Total	500	100	114	214	87	85	140	135	26	115	19	56	9		
Percentage			22.8	42.8	17.4	17.0	28.0	27.0	5.2	23.0	3.8	11.2	1.8	65.6	55.0

The term "Relieved" is used throughout the tables to signify the two groups, "Much Improved" and "Improved," considered together.

Results of Treatment on Discharge and after 3 Years

The important conclusion to be drawn from Table I is the fact that, as a result of psychotherapy, more than half of the 500 cases can be judged relieved three years after their discharge from treatment. Considering the complexity of the illnesses in question, and the severe disablement frequently present, this is by no means unsatisfactory: 65.6 per cent. of the 500 patients are considered relieved on discharge, and after three years the number has dropped to 55 per cent., so that 10.6 per cent. have relapsed during the follow-up period.

The justifiability of considering together the two groups—"much improved" and "improved"—under the term "relieved" is based on the fact that during the three years after discharge a great deal of interchange takes place between these two groups, but only a negligible number of cases are promoted to them from the "slightly improved" and "not improved" groups. It is therefore clear that roughly the same individuals form the "relieved" group, both on discharge and after three years. The number in the much improved group actually

present table—that is, including cases slightly improved—is 83 per cent. improved on discharge.

Diagnosis.—There is considerable variation in the size of the groups under the various diagnostic headings. Where the total for the group is under thirty the percentages in the two final columns are based on too small a number to be of any significance, and will not therefore be considered in detail. Although for purposes of comparison the cases have been classified under definite diagnostic headings, it is sometimes difficult to be certain into which group a particular case should be placed. For example, some patients exhibit anxiety symptoms as a direct result of sexual difficulties, in others delinquency or alcoholism may be the outward manifestations of some underlying psychoneurotic condition, and both hysteria and obsessional states may be complicated by pathological anxiety. It is continually becoming clearer to all engaged in this type of work that in clinical classification one is not really separating out distinct disease entities. Nevertheless, in the present state of knowledge it is useful to make such distinctions for comparative purposes, provided it is borne in mind that the divisions are to some extent arbitrary. In Table I the patients have been classified according to the most important symptom or set of symptoms that have caused them

to seek treatment. For example, the group termed "sexual difficulties" is small because in many cases complaining of such difficulties the clinical picture was dominated by symptoms of pathological anxiety, and it seemed, therefore, more appropriate to classify the cases as anxiety states.

Anxiety States.—These preponderate considerably, forming 44 per cent. of the total 500 cases. The results of treatment in this type of illness are good, 80 per cent. being relieved on discharge and 64 per cent. remaining so after three years. In spite of this relapse of 16 per cent., however, the result of 64 per cent. relieved is still considerably above the average of 55 per cent. for the whole 500. This is the type of psychoneurotic illness so frequently masked by such diagnoses as "gastritis," "irritable heart," "nervous debility," and so on. Anxiety states, therefore, are probably the most important form of psychoneurosis as far as industrial disability is concerned, and it would seem from these figures that psychotherapy provides a very hopeful method of treatment for this condition.

Hysteria.—This is the diagnosis applied to 17 per cent. of the cases. The group includes patients with physical conversion symptoms, such as paralyses, aphonia, etc., and also cases of fugue, amnesia, trance states, and hysterical fits. The results of treatment are somewhat less satisfactory than those obtained for anxiety states, 50.6 per cent. being relieved on discharge. It is interesting, however, that this figure remains exactly the same at the end of the follow-up period, apparently indicating that, although hysteria is a more difficult type of illness to treat, there is less tendency to relapse once a good result has been obtained.

Obsessional States.—These form 12 per cent. of the total. The results do not bear out the commonly expressed opinion that the prognosis for this type of illness is particularly poor. The proportion relieved on discharge is 57.7 per cent., slightly higher than for hysteria, and the fall in the number during the follow-up period is only 6 per cent.

Depressive States.—These form a much smaller group. Cases are only included if signs of psychotic depression, usually of a recurrent type, are present, as distinct from the neurotic form of depression frequently found in anxiety states. The results here cannot be taken to indicate the effectiveness of psychotherapy in this type of illness, for it is well known

Delinquency.—The most common offence for which delinquents are referred to the Institute is stealing (fourteen cases); other offences are obtaining money by false pretences, wandering from home, and ungovernable temper. The results are, unfortunately, disappointing, for although twelve out of the twenty cases are relieved on discharge, half these patients relapse during the following three years. This high incidence of relapse is probably caused by three factors. First, it is particularly difficult when discharging such cases to form a reliable judgement as to the reality of their improvement. Secondly, their environmental background is frequently unsatisfactory, and even with the help of social service organizations it is often impossible to transplant them into new conditions. Thirdly, the difficulty of getting work and obtaining any form of economic security is particularly great for such individuals. It would seem, therefore, that psychotherapy combined with some form of prolonged environmental supervision offers the best chance of success in dealing with delinquent cases.

Other Groups.—Schizoid states describe patients exhibiting schizoid personality trends but without symptoms of developed schizophrenic psychosis. Backwardness indicates arrested intellectual development not amounting to actual mental deficiency and associated with various emotional difficulties or disorders of behaviour. The epileptics were referred for treatment chiefly on account of behaviour disorders, and not only on account of their fits. Cases of idiopathic epilepsy are no longer accepted for treatment at the Institute. The cases of alcoholism and migraine all presented severe and long-standing symptoms.

A small number of patients are found to be undergoing further treatment at the end of the follow-up period. Those who had returned to the Institute for further psychotherapy (3.8 per cent.) were all relapsed cases from the relieved group. The patients under treatment elsewhere (11.2 per cent.) were drawn from the groups showing slight or no improvement, and had been referred to various institutions for treatment on other lines. Five out of the six deaths among the anxiety states were due to natural causes, only one out of the total 220 patients in this group having committed suicide. The three deaths in the group of depressive states were all, however, due to suicide.

TABLE II.—Length of Treatment

	All Cases		Anxiety States		Hysteria		Obsessional States		Sexual Difficulties		Delinquency		Others	
	Total	Relieved 3 years after Discharge	Total	Relieved 3 years after Discharge	Total	Relieved 3 years after Discharge	Total	Relieved 3 years after Discharge	Total	Relieved 3 years after Discharge	Total	Relieved 3 years after Discharge	Total	Relieved 3 years after Discharge
Under 20 interviews ...	250 (50%)	145 (58.0%)	100	66 (66.0%)	31	19 (61.3%)	23	13 (56.5%)	19	13 (68.4%)	17	6 (35.3%)	60	28 (46.7%)
20-60 interviews ...	195 (39%)	100 (51.2%)	90	55 (61.0%)	36	15 (41.7%)	28	14 (50.0%)	10	9 (90.0%)	3	—	28	7 (25.0%)
Over 60 interviews ...	55 (11%)	30 (54.5%)	30	20 (66.7%)	8	4 (50.0%)	9	4 (44.4%)	1	—	—	—	7	2 (28.6%)
Total ...	500 (100%)	275 (55.0%)	220	141 (64.0%)	75	38 (50.7%)	60	31 (51.7%)	30	22 (73.3%)	20	6 (30.0%)	95	37 (38.9%)

that spontaneous remission of symptoms is of frequent occurrence. Since the period when the cases under consideration in this paper were treated the policy of the Institute has been changed, and patients suffering from depressive states are no longer accepted for treatment. It is felt that, in view of the large number of applications received, it is not advisable to spend time on cases in which the results of psychotherapy are so uncertain.

Sexual Difficulties.—This is a term which includes conditions such as impotence, frigidity, marital disharmony, and the various forms of sexual perversion. As previously mentioned, cases are only included in this group if the sexual symptom is the primary complaint for which treatment is sought, and other signs of developed psychoneurosis are absent. The results are good; 73.4 per cent. are relieved on discharge, and there is no fall in the number after three years.

Paranoid States.—These comprise a group in which there is a paranoid tendency in thinking. Developed cases of paranoia are not accepted for treatment. The results are, as would be expected, below the average, but seven out of the twenty cases remain relieved after the follow-up period.

Length of Treatment

Comparison of different lengths of treatment received shows that 50 per cent. of the 500 patients were seen for under twenty interviews, 39 per cent. for twenty to sixty interviews, and only 11 per cent. for over sixty interviews. The percentage of cases relieved by short, medium, and long treatment is practically the same. This suggests that the policy of the Institute—to carry out long analytical treatment only when strictly necessary—is justified. Judging by these figures, neither short methods, such as re-education and persuasion, nor lengthy analytical procedures show any advantage over each other, and it appears best to adopt different methods according to the needs of individual patients. The comparative length of treatment used in the different types of illness does not show any striking differences, but obsessional cases tend to be seen for a somewhat larger number of interviews than other types of case. Even in the obsessional group, however, the number attending for over sixty interviews is only nine out of sixty patients—that is, 15 per cent.

The question of the length of treatment necessary to obtain satisfactory results with psychoneurotic patients is particularly important at the present time, when many new psychiatric clinics are being organized throughout the country. The figures given in this table suggest that a considerable proportion of such patients can be treated in less than twenty psychotherapeutic interviews. Nevertheless, there are also a number of cases requiring longer treatment, and unless a clinic can make provision for this the general results will be less satisfactory.

TABLE III.—*Sex Incidence*

	Totals	All Cases		Relieved 3 Years After Discharge	
		Male	Female	Male	Female
Anxiety states ...	220	88 (40.0%)	132 (60.0%)	49 (55.6%)	92 (69.7%)
Hysteria ...	75	19 (25.3%)	56 (74.7%)	8 (42.5%)	30 (53.6%)
Obsessional states	60	30 (50.0%)	30 (50.0%)	14 (46.6%)	17 (56.6%)
Depressive states ...	30	9 (30.0%)	21 (70.0%)	5 (55.5%)	10 (47.6%)
Sexual difficulties	30	18 (60.0%)	12 (40.0%)	13 (72.2%)	9 (75.0%)
Delinquency ...	20	9 (45.0%)	11 (55.0%)	2 (22.2%)	4 (36.4%)
Others... ..	65	22 (33.8%)	43 (66.2%)	7 (31.8%)	15 (34.9%)
Totals...	500	195 (39.0%)	305 (61.0%)	98 (50.2%)	177 (58.0%)

Sex Incidence

The total 500 cases consist of 195 (39 per cent.) men and 305 (61 per cent.) women. This does not necessarily indicate that women are more liable to develop psychoneurotic illness than men, as the discrepancy in numbers may be partly accounted for by the fact that it is often easier for women to find time for a course of regular treatment. As a large proportion of men can only attend in the evenings, it is more difficult to arrange for their treatment, and they have to be kept on the waiting list longer than those who can attend during the day.

Among 500 consecutive cases seen in the children's department at the Institute 304 were boys and 196 girls. The preponderance of boys may, to some extent, be due to the fact that their psychoneurotic symptoms tend to take a more spectacular and socially difficult form than those of girls, so that parents and others in authority are more likely to realize the need for treatment among boys. It is clear, however, that the sex incidence in this group of children is significantly different from that of the adult cases. It is possible that the present form of social organization gives a better chance for boys who show neurotic symptoms to adjust as they grow up, whereas girls who may possess only a latent tendency to neurosis in childhood develop more definite symptoms in later life.

Certain types of illness in the table show a different sex incidence from that of the total 500 cases. In hysteria the preponderance of women (74.5 per cent.) over men (25.5 per cent.) is considerably greater than for all cases. Obsessional states afflicted an equal number of men and women. In the category of "sexual difficulties" there are eighteen men to twelve women, this being the only group in which men predominate. The symptoms complained of by these latter patients are probably more socially irksome for men than for women, and this fact may account for a larger proportion of men seeking treatment.

Comparison of the relative numbers of men and women relieved by treatment shows that the women patients, on the whole, do rather better than the men. This difference is most marked in the anxiety states, where 55.6 per cent. of the men are relieved three years after discharge, as compared with 69.7 per cent. of women. The greater difficulty found in relieving men patients of anxiety symp-

toms is probably connected with present economic conditions and the prevalence of unemployment. Although both men and women suffer under these hardships, the man in the family, looked to as the wage-earner, is likely to feel more actual anxiety about immediate problems, and hence will find it harder to adjust himself during treatment to earlier difficulties in his life. In the group of sexual difficulties, where symptoms are less affected by problems of the present, men and women do equally well.

Married and Single Status

Taking men and women together the number of single patients (68.6 per cent.) is considerably greater than married (31.4 per cent.). This discrepancy is probably accounted for by the fact that neurotic fears frequently hold people back from marriage. The percentages relieved in the categories of married and single show no very striking differences, but single women do slightly better, and single men slightly less well, than the average for all relieved cases.

TABLE IV.—*Married and Single Status*

	Totals	All Cases		Relieved 3 Years after Discharge	
		Married	Single	Married	Single
Male ...	195	71 (36.4 %)	124 (63.6 %)	37 (52.1 %)	61 (49.2 %)
Female ...	305	86 (28.2 %)	219 (71.8 %)	45 (52.3 %)	132 (60.3 %)
Totals...	500	157 (31.4 %)	343 (68.6 %)	82 (52.2 %)	193 (56.3 %)

The figures applying to the different types of illness become too small, owing to subdivision, to be of statistical significance, and have therefore not been set out. There are only two noteworthy observations in these figures: Among "obsessional states" there are more married patients (thirty-three) than single (twenty-seven); in the group of "sexual difficulties" the preponderance of single patients (twenty-four) over married (six) is greater than for the total of 500 cases. This would be expected for a group containing the cases of sexual perversion.

Age Groups

The largest proportion of patients are between 21 and 30 years of age (38 per cent.), the group next in size being among those from 31 to 40 years (28 per cent.). The ages quoted are those at the beginning of treatment. The percentage of cases relieved in the various age groups shows no great difference. The figure of 60.4 per cent. relieved among those over 50 years of age should not be taken to indicate that elderly patients are particularly hopeful subjects for psychotherapy, as cases of this age are selected with particular care at the preliminary interview, and only those presenting very hopeful features are taken on for treatment. The results recorded in this table do not support the contention sometimes made, that psychotherapy is only a hopeful method of treatment for young patients, but indicate that a considerable measure of success is possible with those of middle age.

TABLE V.—*Age Groups*

	All Cases	Relieved 3 years after Discharge
17-20 years	59 (11.8%)	30 (50.8%)
21-30 years	190 (38.0%)	109 (57.3%)
31-40 years	140 (28.0%)	71 (50.7%)
41-50 years	63 (12.6%)	36 (57.1%)
Over 50 years	48 (9.6%)	29 (60.4%)
Totals	500 (100%)	275 (55.0%)

The numbers in each age group are too small to set out statistics for the different types of illness. It is, however, of interest that the younger patients with anxiety states do particularly well, twelve out of fourteen patients between the ages of 17 and 20 years being relieved three years after discharge. The results for delinquency reveal a disappointing difference, only one out of thirteen cases between the ages of 17 and 20 years remaining relieved, as compared with five out of the seven cases between the ages of 21 and 30 years. No delinquents in the series were over 30 years of age. The treatment of adolescent delinquents presents a particularly difficult problem, and the suggestion made in the discussion of Table I, with regard to environmental treatment of such cases, probably applies most strongly to the adolescent group.

Occupations

The majority of patients (392) are in non-professional occupations. The largest group (119) consists of clerical workers, a large proportion of these being unmarried women working as shorthand-typists.

TABLE VI.—Occupations

	All Cases	Relieved 3 Years after Discharge		All Cases	Relieved 3 Years after Discharge
Professional:			Non-Professional:		
Solicitors ...	2	—	Clerical workers	119	66
Clergymen or Ministers	6	6	Trade, shop assistants	23	15
Teachers ...	42	26	Domestic servants	52	27
Social workers	9	7	Home duties ...	88	45
Artists, Actors, Musicians	8	5	Skilled workmen	42	27
Writers ...	3	2	Unskilled workmen	18	5
Nurses, Masseuses	16	10	Factory hands	4	1
Students ...	22	16	Unemployed or in and out of work	43	17
	108	72 (66.7%)		392	203 (51.8%)

Totals: All cases ... 500.
Relieved 3 years after discharge ... 275 (55%).

Comparison of results reveals that 66.7 per cent. of patients in the professional occupations are relieved, as compared with 51.8 per cent. of those in non-professional work. The results in the last three occupational groups—namely, unskilled workmen, factory hands, and unemployed—are considerably below the average.

Psychopathic Heredity and Adverse Early Environment

Only gross evidence of psychopathic heredity is recorded in this table—namely, 'psychosis, mental deficiency, epilepsy, or severe neurotic symptoms in one or more near relatives. The incidence of this factor is therefore under- rather than over-estimated. Adverse early environment includes cruelty and drunkenness in

TABLE VII.—Incidence of Psychopathic Heredity and Adverse Early Environment

	No. of Cases	Percentage of Total 500	Relieved 3 years after Discharge
Psychopathic heredity ...	183	36.7	101 (55.2 %)
Adverse early environment ...	297	59.4	140 (47.1 %)

the home, illegitimacy or orphanage leading to upbringing in unsympathetic surroundings, divorced, separated, or quarrelling parents, and conditions of serious poverty. These are only the most obvious forms of adverse environment, but it is extremely difficult to include in statistics the more subtle, but equally important, early

influences which affect neurotic patients. Psychopathic heredity is recorded in 36.6 per cent. of the 500 cases, but the proportion relieved in this group is 52.2 per cent., suggesting that such a factor is not a serious handicap to successful treatment. The number of patients giving a history of adverse early environment is much higher—namely, 59.4 per cent. Among these 47.1 per cent. are relieved, a figure slightly lower than the average for all patients. These two groups overlap considerably, for a number of patients give a history of both psychopathic heredity and adverse early environment.

Among the various types of illness an hereditary factor was frequently found in patients suffering from depressive states. The highest incidence of adverse environment (82.7 per cent.) is in hysteria, and the lowest (47.7 per cent.) is in the anxiety states. This does not necessarily suggest that anxiety states have less connexion with factors in the early environment, for the more subtle forms of environmental difficulty probably have a more important influence on individuals liable to anxiety symptoms than on those with a latent tendency to hysteria.

Summary

1. The results of treatment by psychotherapy of 500 consecutive adult patients are examined.

2. On discharge from treatment 65.6 per cent. of the patients are found to be much improved or improved. On reassessment after three years' follow-up the figure is 55 per cent.

3. Analysis of length of treatment shows that 250 cases were treated by short methods (under twenty interviews), 195 attended between twenty and sixty times, and fifty-five over sixty times. The results in the three groups are almost identical.

4. Detailed analyses are made of the results in different types of illness, males and females, married and single, age groups, occupations, and patients with psychopathic heredity and adverse early environment. The best results recorded are for cases of anxiety state and for those complaining of sexual difficulties.

We should like to thank Dr. J. R. Rees and Dr. H. V. Dicks for their interest and encouragement in the preparation of this paper.

C. N. Myers, Florence Gustafson, and B. Throne (*New York State Journ. Med.*, June 1st, 1935) discuss the distribution and diagnostic significance of lead in the body, based partly on an investigation of about 500 cases in which this metal was discovered in the urine, blood, and hair, although there had been no history of exposure. They believe that lead poisoning is far more insidious than arsenic poisoning, and that its removal from the body is more difficult. The normal amount expected to be present varies in different geographical sites, and is associated with the water supply, fruit, and vegetables, which should always be suspected when there are obscure gastro-intestinal or circulatory disturbances. Early important symptoms of lead poisoning are anorexia, nausea, weariness, constipation, headaches, and eye disorders. When the urine contains more than 50 micromilligrams per c.cm. of lead, special investigation should follow always, but it must be remembered that in some places anything over 20 micromilligrams is pathological. As regards the blood, it is believed that 24 micromilligrams of lead per 100 c.cm. indicates patients of the sub-chronic type, although in some places the figure may be only 6. When lead is found in the hair it has a special significance, since this metal only finds its way there with difficulty. Differences in individual susceptibility to the effects of lead poisoning seem to be related to differences in the personal excretory capacity. This metal tends to be deposited in tissues with a relatively high phosphorus content, whereas arsenic selects those more rich in sulphur.