

(5) *Conclusions concerning the causes of the neurosis persistence or recovery.*—From the previous factual analysis it emerges that neither living conditions prior to the experience, nor the nature of the bombing experience are important factors for persistence. But personality defects, severe emotional reaction at the time, and possibly disturbing effects of the incident on the individual's pattern of living are likely to predispose to this. Other important factors emerged from the individual assessments. While in the analysis continuance of living in the district did not appear to predispose, it must be remembered that several evacuees were not seen. Continuance despite lack of confidence did appear to be an important cause of persistence; delayed return to normal work, interests and activities were similarly found to be important. Clearly the individual may be helped by the Doctor or Social Agencies: apart from any other treatment, they may reduce these strains, promote an environment and attitude suitable for recovery, making appropriate adjustments as his condition improves. In these ways they had helped in some instances, in the majority they had intervened little or not at all, and in others they had even hindered by encouraging opposite attitudes and tendencies. Another relevant factor was the tendency for the neurosis to become very chronic if a disorder of moderate severity lasted over one or two months (see Table I); this suggests the importance of assisting recovery when this does not appear to be commencing within the early weeks.

SUMMARY

(1) A group of cases, who had been admitted to F.A.P.s in one English city during a period of heavy bombing, was followed up ten months later; all the traceable cases (127—76% of the possible sample) were visited; a severe personal experience had been the main reason for admission in 55%, and had preceded the admission in 75%.

(2) Of those who had been buried for over one hour (35), 66% developed neurotic symptoms, and 40% neurosis which had caused absence from work; in about equal proportions the neurosis was either temporary or persistent (i.e. for ten months).

(3) The type of neurosis among those who had suffered personal involvement was predominantly mixed depression and anxiety (56%) or either of these alone: a further 16% were cases of anxiety hysteria. 27% had trekked, and 32% evacuated for a period following the experience, while 55% neither evacuated nor moved permanently to a safer area of the city. During the raid ten months later 51% were abnormally anxious, and 59% had become more nervous during the raids.

(4) The causes of neurosis development or persistence were studied on the whole group who had suffered personal involvement (94).

(5) It appears that neurosis is likely to follow severe personal air-raid experiences, which at the time upset the individual emotionally, or produced a serious upset in the pattern of his living by destroying a much-esteemed home or a close friend, especially, but not only, if he is of unstable personality and was at the time living under some other strain.

(6) Neurosis, after such experiences, is likely to become persistent when the personality is unstable, living conditions have become an abnormal strain, either due to general difficulties or to residence in the danger area despite the absence of confidence. Recovery tends to occur when such factors are eliminated and the earliest possible resumption of full normal activities is facilitated and encouraged.

Neurosis in a London General Practice During the Second and Third Years of War

By J. WHITBY, M.D., M.R.C.P., D.P.M.

THIS paper is intended to be a study of the effects of the second and third years of war on the neurotic or potentially neurotic elements in a London district. It is based on the records of a general practice with which I was associated for eleven years prior to the war and during the first half of the war. When I left this practice to take up psychiatric work entirely, the records were continued by my colleague, Dr. Patrick Walsh, to whom I am deeply indebted.

At the outbreak of war there were about 3,000 private patients on the books. Patients insured under the National Health Insurance Scheme have not been included in this study. They were mainly lower middle class, with a sprinkling of higher social grades, and were a fair sample of the district, except that the ratio of females to males was 2:1 as wives of panel patients would be included but not the husbands.

To study the incidence of neurosis in war, we must first define what is meant by the term "neurosis" for this purpose. In the mild cases seen in general practice the question of physical predisposition is much more important than in the chronic or severer cases seen by the psychiatrist. It is a commonplace to see in the same patient a mild anxiety state or depression associated at one time with an infection, at another time with psychological stress. Symptoms or signs referable to disturbed functioning of the nervous system may occur with, and be symptomatic of, structural physical disorder, and yet be aggravated by either the progress of the disease or by psychological factors. The relation of physical factors to the mental ill-health may be of all degrees, from mere concomitance to main cause, and the predisposition may frequently be both physical and psychological, the proportions varying from case to case, and in the same case at different times. To disentangle such factors which might be either cause or effect in the same case would make the task unnecessarily complex, and it was, therefore, decided to study nervous symptoms rather than strict neurosis. Under this heading would be included such symptoms as nervousness, depression, insomnia without obvious physical cause, and such signs as those of somatic anxiety or conversion hysteria. In practice about half the cases seen had physical disorders also, due partly to the foregoing considerations and partly to the fact that many of these patients were not accustomed to seek treatment for minor nervous disturbances, and only came when some physical disorder gave them an excuse.

The number of such patients seen in the two years was 330, but as 20 had incomplete records they are excluded from analysis, although they appear in the attendance figures.

A further 35 were not known prior to the period studied and are rejected, leaving 275. Of these, 234 had nervous symptoms during this period and the remaining 41 were seen for physical illness, but had a known predisposition to nervous symptoms. Known predisposition is rigidly defined as having had treatment for such symptoms before September 1940, and generally, it was pre-war. Anxious personality, mild enough never to have required treatment, even bromides added to their medicine, was disregarded, as was inference from present symptoms.

The inquiry falls naturally into two periods, September 1940—May 1941, during which the air raids on this district occurred, and June 1941—August 1942, when the district was raid free. The incidence of neurosis in the first period has also been reviewed by Dr. Aubrey Lewis in the *Lancet* (1942 (ii) 175).

The amount of bombing was about average for a London suburb. Severe experience was small and only nine of these patients had been bombed out of their houses, although this had occurred to some other patients also, without the development of nervous symptoms. Broken windows and minor damage to houses was common. Two had had relatives killed in their presence; a number had seen injuries and a smaller number sustained injuries.

To study the incidence of nervous symptoms, a comparison has been made with 1937, which was the last peaceful year. In this year there were nearly 8,000 attendances among 1,237 patients, and 30% of the attendances were for nervous symptoms. The picture changes, however, when we look at the monthly distribution. Fig. 1 gives the percentage of total attendance which was for nervous symptoms, and, in 1937, shown by the dotted line, the percentage ranges from 20% in the winter, when physical illness is frequent, to 41% in the summer when such illness is low, chronic neurosis being little subject to seasonal fluctuation. The other line gives the corresponding percentages for the period studied, and it will be seen that September, October and November 1940 were abnormally high, whereas the remainder of the year was about normal, with minor variations, due to seasonal differences. The percentage for these three months was 41% as against 32% for the corresponding period in 1937. Percentages, rather than absolute figures, are used as being more reliable for an available population fluctuating in size.

To interpret this, one must consider whether the composition of the population had altered materially. That considerable movement of population had occurred is shown by fig. 2, which gives the total attendances, compared with the normal curve of illness, based on ten years' average. This demonstrates the effect of evacuation at the beginning of the war, but shows that, by September 1940, attendance had nearly returned to normal, and most evacuees, apart from children, had returned. A fresh evacuation caused another sharp drop in September 1940, with a continued fall for three months. Individual case-histories show that evacuation proceeded steadily during these three months, and then practically ceased. How did this affect the proportion of patients predisposed to nervous symptoms who remained? An investigation of the percentage evacuation amongst the different groups of these patients, showed that aggravated cases evacuated more than stationary, and predisposed more than non-predisposed. Hence there was a differential

evacuation of the predisposed, a sort of natural selection, and although many of the evacuated came up to see me periodically, they attended less often than normally, and there must have been a still greater relative rise than the graph indicates.

There was no change in the sex ratio which, as in 1937, was two females to one male for all illness; and 3 females to one male for nervous illness. The average age of this

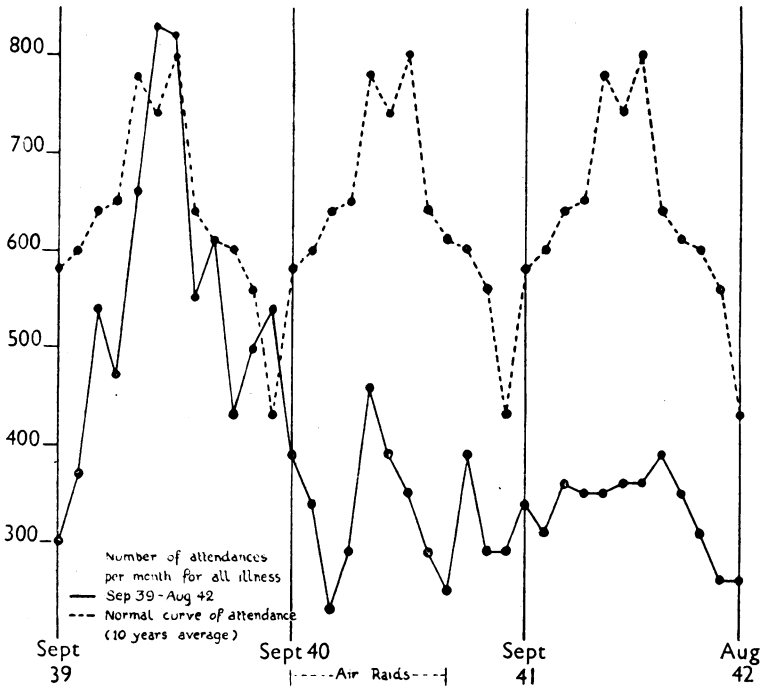


FIG. 1.

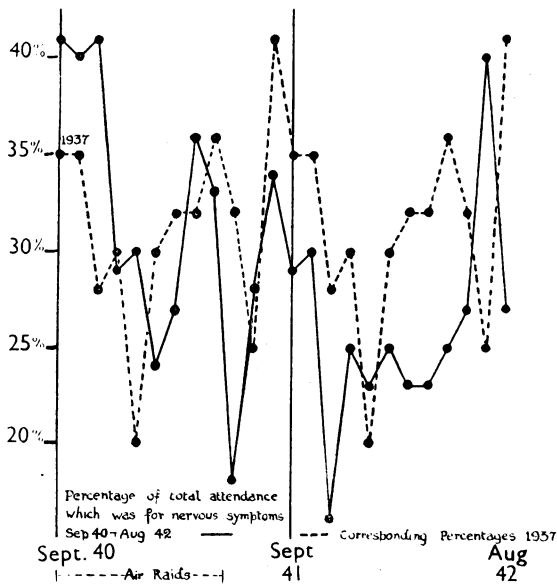


FIG. 2.

population rose from 45 to 48, due to the fact that evacuation of young mothers, and absorption elsewhere of the younger elements more than counterbalanced the evacuation of the elderly; but this could not account for more than a little, if any, of the rise, as this should produce a corresponding rise in physical illness.

To test whether an apparent rise might be due to a fall in physical illness, the expected attendance for each kind of illness was calculated by deducting the effect of evacuation, the amount of the latter being known by a local official survey. It was then found that the attendances for physical illness, in the three months, were so far short of the expected figure, that it must mean that people were not bothering about minor illness. This was known to occur by the reports of patients, but that people were equally neglecting their nervous illness is shown by the fact that the ratio of attendances, per patient, was running at an equally low figure for both.

It must, therefore, be concluded that there was a small but real increase in nervous symptoms, sufficiently marked to require treatment for them, during September, October and November 1940. What was regarded as a normal degree of apprehension in relation to air raids has not been included.

During the next six months of air raids, nervous symptoms were 30% as against 29% for the corresponding period of 1937, and the curve is of approximately normal shape. Evacuation had now ceased. The total attendance curve shows the usual seasonal fluctuations, but the amount of attendance was about half normal. This was due to the absence of epidemics, the continued neglect of minor illness and later on, my own absence on other work. There is other evidence that the impact of the air raids had worn off. Case-histories showed that mild cases had largely cleared up. The ratio of attendances to patients for nervous illness had risen slightly, as mild cases ceased to attend, but was still below the normal figure, due partly to evacuation of chronics, as well as failing to attend for treatment. If one allows for the evacuation of the neurotically predisposed, there was probably a very small rise persisting in this period. The bulk of the population had adjusted to the new conditions, and found a feeling of security by all sorts of devices. Bedrooms on upper floors were now scarcely used, and people slept either downstairs or in Anderson or other shelters. To many, sleeping under a table, or under the stairs, gave relief. Very few of these people went to tubes or out into the country to sleep at night. Much ingenuity was used to make the new conditions tolerable and very few complained.

The aetiological factors in the 113 aggravated cases of these nine months were many, but could be broadly classified into: (1) Air raids. (2) War problems, by which is meant other psychological stress directly due to the war, such as occupational and evacuation difficulties. (3) Domestic problems, such as family anxieties or marital infidelity. (4) Personality problems where difficulty in pre-war adjustment existed and there was no apparently adequate precipitating circumstance. (5) Physical: where the symptoms were considered to be mainly due to physical disease.

These factors were, naturally, often multiple, but if a somewhat arbitrary selection of the main factor be made, more than half the cases were not directly related to the war, and, in one third of the total, war problems predominated. Air raids were relatively more important in those of known predisposition. Physical disease was the main factor in 8%, but contributed in others. Where air raids were a factor, the first attendance was in the first three months in 71%, whereas where war problems were factors, only half the cases attended so early. Thus air raids gradually decreased in importance, and war problems rose.

The number of attendances and duration of treatment for the exacerbation or illness, showed a close correlation between predisposition and severity, as judged by this standard. Thus: the 28 aggravated chronic cases, averaged nine attendances over sixteen weeks; the 58 aggravated predisposed, four attendances over six weeks; and the 27 non-predisposed, two attendances over three weeks. Clinical records confirmed this, and neurosis of any severity was almost unknown, without known predisposition. About half the predisposed had mild illnesses and about three-quarters of the non-predisposed. The mildness of the illness, in the latter, is shown by the very small number of attendances, but there were about another 20 cases in this group not included here, as their mildness did not justify detailed analysis at the time. Patients presenting only what was regarded as a normal degree of apprehension are not included at all.

The clinical classifications were mixed, as usual in psychiatric practice, and the cases were no different in kind to those seen pre-war. To go by the main symptomatology, 60% were mainly anxiety states, 35% mainly depression and 5% mainly hysteria. Depression was slightly commoner in the non-predisposed. The milder anxiety states were not

always due to air raids and often benefited by a short discussion of their problems, as well as sedatives. As opportunity occurred for most of them to be seen again, for various reasons, during the next period, the results of treatment will be deferred until this period has been discussed. This covers June 1941 to August 1942, during which there were no raids in the district. The curve of percentage attendance for nervous symptoms (fig. 1), is of normal shape, with summer and winter fluctuations; though these were in different months to 1937, but it runs at a lower level. The total attendance for the third year of war was 4,000, as in the second year, but only 26% for nervous symptoms as against 31% in the previous year and 30% in 1937. To interpret this fall again requires consideration of the composition of the population. The total attendance curve for the year (fig. 2) is grossly abnormal in that it hardly shows the usual winter rise, which is a new phenomenon in my experience. The explanation appears to be that during the summer, after the raids, people no longer neglected their minor illnesses, but when the evenings grew dark they did. Furthermore, during the winter the available population declined owing to my continued absence from my practice, and to more absorption of women into war work, when they became insured patients or moved away, so flattening out the normal winter curve. In the summer of 1942, the decline was neutralized by renewed attention for minor illness and return of evacuees. Thus the total remained stationary. There is evidence that all these factors were operative, but the only one that affects the neurotic population especially, is the return of evacuees, which took place more among the healthy than the predisposed, and so lowered the percentage of predisposed in the district. This is not enough to account for such a fall in nervous symptoms. All this suggests that the mental health of the resident population remaining, was better than pre-war. Table I gives some direct

TABLE I.—COMPARISON OF MENTAL HEALTH SEPTEMBER 1940—MAY 1941 AND JUNE 1941—AUGUST 1942.

	No.	Well or improved	Same	Worse	Not seen again
Attended for nervous symptoms, September 1940—May 1941	168	66	44	18	40
Well September 1940—May 1941, but either of known predisposition or developed illness later	107	37 (well throughout)		66	4
	<hr/> 275	<hr/> 103		<hr/> 84	<hr/> 44

evidence on this point. This is a comparison of the mental health of ill or predisposed patients in the two periods, and shows that 84 were worse; at least 66 better; and 44 not seen in the second period. The majority of the latter, however, were not chronic, but intermittent attenders, who would have come in again if they had had symptoms, so the probability is that more were better than worse. Further evidence is supplied by the fact that out of a remaining population of at least 1,500, there were only 20 new cases of no known predisposition as against 47 in the first period.

It must not be assumed that this low level of nervous symptoms in the remaining population implied a low level in the original population of the area. There was still a relatively large proportion of potential neurotics remaining evacuated, and gradually going to other doctors. Nevertheless a rough estimate of the amount of drop in attendance due to this still does not cover the decline, and the conclusion must be that the amount of nervous symptoms for which treatment was sought, was slightly lower than pre-war. The 66 new cases seen in this period occurred in predisposed persons in 46; more than half were unrelated to war, and 17% were mainly due to physical illness. In addition, many of the previous group were seen, 18 for fresh exacerbations, others for stationary or recovering nervous illness, or for physical disorders. The new questions of girls going into industry arose only in the insured population and are not studied here.

These cases resembled those of the previous period in their symptomatic diagnosis and mildness, but the occurrence of a few prolonged, though not severe depressions, was a new feature. These were often associated with war problems.

The early and late results of treatment of the earlier group of cases may now be considered. Table II shows that the immediate outcome of illness was good in the predisposed, if not chronic, and very good in the non-predisposed. The late results showed some tendency to deterioration in chronics, but improvement was generally maintained in the others, especially as many of those not seen again were probably not needing treatment.

It would be premature to give figures about the 66 late cases, but my impressions have

been that although mild, they tend to be more prolonged, and not to recover so completely. This would correlate with the fact that causal factors are persisting in many of them. The question of the extent to which those of known predisposition developed a nervous illness or exacerbation, may now be answered. Of 228 such patients seen, 38% were aggravated in the first period and 24% in the second period, but one-third remained well,

TABLE II.—EARLY AND LATE RESULTS OF TREATMENT IN PATIENTS SEEN FOR NERVOUS SYMPTOMS. SEPTEMBER 1940—MAY 1941.

Cases seen September 1940— May 1941	No.	Condition when last seen September—May			Condition when last seen June 1941—August 1942 compared with the earlier period				
		Not needing treat- ment	Partially recovered	Not improved	NNT	PR	Stat.	Worse	Not seen
Chronic aggravated	28	—	8	20	1	8	8	6	5
Chronic stationary	44	—	—	44	—	1	31	8	4
Chronic improved	11	—	11	—	—	6	1	1	3
Illness known pre- disposition	58	30	23	5	11	19	4	1	23
Illness no known predisposition	27	20	6	1	17	3	—	2	5
	168	50	48	70	29	37	44	18	40

or better, throughout. As 228 is considerably below the number of persons of known predisposition remaining in the area, who would have attended if they required treatment for any cause, the proportion of such persons who had no nervous symptoms for which treatment was sought, must have been much higher, probably at least one-half.

CONCLUSIONS

The 8,000 attendances during the second and third years of war have been analysed for nervous symptoms. There was a small but definite increase in nervous symptoms during the first three months of air raids in September, October and November 1940, but the incidence then gradually fell to normal, and became below normal after the raids ceased. These cases were mild, at least half not directly due to war, and in the others, war factors other than raids, became increasingly important. Those known to be predisposed accounted for 75% of all cases. A follow-up of 228 persons known to be predisposed, showed that at least one-third had had no exacerbation of their symptoms throughout.

These conclusions indicate that the low incidence of severe neurosis seen by the psychiatrist is paralleled by a similar low incidence of mild cases seen in general practice and is a gratifying indication of the good morale existing in this London district.