THE INFLUENCE OF THE WAR ON MENTAL DISEASE: A PSYCHIATRIC STUDY.

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IT was generally expected, before the actualities of war arrived, that not the least effect of it would be a shattering of the mental health of the civil population.

War on great cities was to be a particular application of what the war lords called the war of nerves. Propaganda, threats and their ultimate fulfilment with bombs and fire were to be the weapons of the future. With this in mind, arrangements were made to receive psychiatric casualties on the assumption that the civil population, untrained and unprofessional, would suffer in at least as large numbers as soldiers in the last war.

Many of the factors believed to be of great psychogenic importance are operating throughout this country—anxiety and fear, restriction of liberty and entertainments, family bereavements, overcrowding and under-nutrition, lack of sleep, and in 1940, national disappointment.

That the psychiatric casualties have not been as great as anticipated is a fact. That they may not be large towards the end of a protracted war is uncertain; nor is it certain that late effects of present conditions may not make their appearance in time to come. After more than 15 months of actual warfare, and six months of intense attacks, some of the immediate effects of the war on the mental health of the country should be now apparent. What these effects are, and what importance should be attached to them, is a very real problem, and one which cannot be adequately studied without access to the reports of clinics and hospitals treating patients drawn from every walk of life. A number of papers have appeared in the course of the year, dealing with some aspects of war psychiatry; these will be referred to later.

The public mental hospital covers a section of the less wealthy and working-class population, and for the most part copes with the more severe forms of mental disorder. Its material is all the more valuable as its patients are drawn from those most exposed to the hardships and dangers of aerial warfare, and least able to make arrangements to meet altered living conditions.

Bristol has had an intimate and representative experience of the nature of this war since the outbreak. Its habitual life was interrupted early by the

arrival of many thousand evacuees, professional, occupational or apprehensive. It has had months of unfulfilled expectations of raids, severe attacks by day, numerous minor and some "blitz" raids, and all the dislocations and interruptions of civil life that accompanied them. The civil population has had to endure as much of war as that of any other great city outside London, and if war of this sort jeopardizes the mental health of man, it offers a rich field for investigation.

Bristol Mental Hospital, up to the present, has not received large numbers of transfers from other hospitals, nor has it been partially evacuated to make room for non-mental cases. It therefore provides an uncontaminated ground for the study of the war psychiatry of civilians—an advantage that may be lost at any time.

It is proposed in this paper to study some aspects of this problem by examining—

1. The annual admission rate of patients.
2. The cases in which the war might have been a primary or contributory factor of causation.
3. The reactions of mental patients themselves to the war and air-raids.

I. Admission Rate.

The admission rate of the mental hospital, like the death and the recovery rates, is conditioned by local factors, and provides only a rough guide to the incidence of all forms of mental disorder in the district. It provides an even more inexact guide to the importance of psychogenic factors operating throughout the year. It must be remembered that the annual admission rate is linked to some extent with the birth rate, and local and even constitutional factors, existing many years before the admission of the patients to hospital; also that it does not include patients of the wealthier classes, nor many cases of the neuroses and allied reactions. On the whole, the admission rate in Bristol has shown a slight annual rise from 1930, and even earlier, to 1939. It would be surprising if factors operating many years ago were to single out 1940 for a marked rise or fall in the annual rate of admissions compared to the preceding years.

Therefore, subject to certain considerations which will now be dealt with, the admission rate should give some indication of the immediate psychogenic effects of alterations in local conditions.

At the outbreak of war the Bristol Mental Hospital lost about 380 beds when its admission, treatment and convalescent unit was commandeered. More than 100 partially recovered patients of both sexes were sent home, and in the course of the next six months a further 100, or thereabouts, chronic patients were transferred to Stapleton Public Assistance Institution, under section 25 of the Lunacy Act.

It was to be expected that a number of these patients would return as readmissions during 1940, thus exaggerating the true admission rate. This has been borne out in practice.

In Bristol, most of the certified and many of the voluntary patients are admitted to Stapleton Institution for observation, prior to entering the mental hospital. In view of the known overcrowding in the mental hospital, many patients, in need of supervision rather than specialized treatment, were generously detained by the management at Stapleton Institution.

This fact tends to make the admission rate appear rather low. The precise figures for Stapleton Institution are not available, but approximate estimation shows that the number of patients detained there, who would in normal times have been sent to the mental hospital, is not in excess of the abnormal number of readmissions mentioned above. These sources of errors tend to cancel out.

The total population of Bristol has been increased by many thousands since the outbreak of the war. Some of these were voluntary evacuees from more dangerous areas, others came for employment—conditions rather unsettling for the individuals concerned. Some patients admitted in 1940 came from these non-Bristolians, thereby contributing to the pre-war admission rate.

The Mental Treatment Act of 1930, reaching a fairly wide application by 1935, led to the admission of increasing numbers of voluntary patients, among whom were some who would certainly not have entered hospital on any other certificate, and who were attracted by the improved conditions in modern admission blocks. The overcrowding at the mental hospital and the closing of the admission hospital no doubt act as a deterrent to some of these would-be patients.

Table I shows that the number of patients admitted in 1940 was the lowest in five successive years, and exactly 100 less than in 1938. It shows a vastly greater reduction on the preceding year's figure than any other year for at least the ten recorded. The most striking alterations occur in the numbers of voluntary patients of each sex admitted, and in the total female admissions

TABLE I.—*Annual Admissions for* 10 *Years.*

	Male.				Female.				
Year.	Voluntary.	Temporary.	Certified.	Total.	Voluntary.	Temporary.	Certified.	Total.	Grand total.	Recoveries.
1940	38	2	135	175	42	9	128	179	354	118 (33%)
1939	74	14	103	191	111	19	124	254	445	131 (29%)
1938	72	4	104	180	144	24	105	273	453	147 (32%)
1937	39	4	111	154	81	34	95	210	364	129 (35%)
1936	56	6	112	174	91	21	112	224	398	131 (33%)
1935	30	10	89	129	60	15	120	195	324	122 (38%)
1934	20	6	111	137	44	16	146	206	343	106 (31%)
1933	18	1	138	157	32	6	155	193	350	93 (25%)
1932	6	1	113	120	24	9	146	179	299	104 (35%)
1931	3	6	119	128	9	19	136	164	292	93 (32%)

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of the year. The total number of males admitted is not far outside the general trend of admissions excluding the two years 1938 and 1939, when the admission hospital (opened in 1938) presumably attracted more patients; the number of females is the lowest in eight years.

Voluntary patients.—The number of male voluntary patients admitted is the lowest in five years, of female the lowest in seven. The reduction in the female voluntary patients is the more striking, as in ten years the proportion of male to female voluntary patients has not been so nearly equal.

Certified patients.—The number of male certified patients is, with the exception of 1933, the highest in ten years, of female an average figure exceeded considerably in four other years. Probably some of the certified male patients might have been admitted as voluntary patients.

Temporary patients.—Both males and females admitted in 1940 on temporary recommendations were remarkably few. This suggests that the number of deeply confused patients admitted during the year was not large, and that in all probability the temporary recommendations were not employed with as much enthusiasm as in the years of peace. Temporary recommendations are as much a guide to the mind of the doctor as of the patient, in that the exact interpretation of the Act is somewhat arbitrary.

In general, therefore, it appears that after making allowance for certain fallacies there has been no striking change in the incidence of the serious forms of mental disorder among males during the year 1940, while among females there has been a very considerable reduction, chiefly involving patients of the voluntary class.

With regard to the question of the neuroses and milder types of mental disorder, general practitioners and others who have the opportunity of treating them have, in discussion, given it as their impression that there has been a falling off in the incidence of such cases, especially in women. One practitioner says that the war seems to have "cured" many of her neurotic female patients.

II. Cases in which War was an Apparent Causative Factor.

In 1940, 175 men and 179 women were admitted to the mental hospital. After careful examination of the histories of all patients, it was only possible to find 17 men and 14 women respectively in whose illness war seemed to have played any part.

The distribution of various types of mental disorders among these patients can be seen in Table II.

Table II.—*Distribution of Cases with Significant Histories.*

	Hysteria.	Mania.	Depression.	Confusion.	Exhaustion.	Schizophrenia.	Involutional melancholia.	Blast.	Senile dementia.	Total.	Family history, previous illness, etc.
Male .	1	5	7	1	–	1	–	1	1	17	12
Female	1	1	4	–	1	2	4	1	–	14	9

In view of the small number of cases the number of diagnostic types has been kept as small as possible, and endogenous and reactive depressions have been grouped as depressions. Cases in which syphilis or alcohol was the principal factor have not been included.

Fear for self, or for family, general anxiety, loss or change of employment, noise, blast, shelter life, deprivation of sleep, reduction in social intercourse, compulsory military service or family separation, all the major evils of this war, do not appear as prominent primary or contributory factors in the histories of these 31 patients. Some of these conditions were cited by relatives as important, but they usually formed part of a complex set of circumstances which, acting on a susceptible individual, contributed to the mental breakdown. It is not profitable to discuss all these cases in full, nor to endeavour to show that any specific reaction resulted from fear, noise, anxiety and the like; reference will be made briefly to a small number of selected cases.

It may be noted that of the 17 male and 14 female cases, 12 and 9 respectively gave a history of previous mental illness, or of strong family taint. It is safe to conclude, therefore, that in the majority of these 31 cases there was a pre-existing constitutional weakness. In a recent paper, Curran and Mallinson (1) have shown that significant family histories, or psychopathic traits, were so marked in a series of 100 naval psychiatric cases examined by them that a mental breakdown could have been predicted in 39 per. cent.—a conclusion borne out by experience at this hospital with non-service patients.

Manic and depressive reactions.—More than half of the 31 cases belong to the groups of manic or depressive illnesses, apart from four cases of involutional melancholia.

Although great caution must be observed in assessing the importance of causes in periodic insanity, it did seem from this series that the frequent interruption of routine life by air-raids, and shelter life, precipitated bouts of insanity in a few cases. For example:

F. C. B—, aged 22, hospital porter, was previously treated in 1936 for acute mania. He was married to a very timid and nervous wife, who forced him to bring her each night to a shelter for women and children only; he had to stand outside, as he could not leave his wife alone. He felt obliged to rush home during daylight alerts, if his work permitted, in order to be with his wife.

His general health failed; for a week he was depressed, and then developed a typical attack of acute mania just three months after the first air-raid.

This case is not an illustration of the psychogenic effect of air-raids, but rather of the reaction of a susceptible individual to a situation only created by the war. That he tolerated such an arrangement with his wife is some evidence that he was a susceptible individual in more senses than one, and that his mental constitution was no better ordered than his domestic life.

Hysteria.—Two cases were observed; one female as a reaction to domestic and sexual difficulties aggravated by the inconvenience of wartime housing conditions, and the other, a male, who had served in the last war. He developed

a hysterical reaction derived from the possibility of being called up again for military service. Air-raids appeared to have little effect upon his illness.

Confusional states.—In two male cases, each with a history of previous mental illness, attacks of confusion with restlessness and disorientation appeared to be partly conditioned by the disorganization of home life by black-outs and shelter life. In these cases the war was a minor contributory factor.

Exhaustion.—The sole example was a woman, aged 62, unmarried, domestic by occupation, who had been working very hard, and spending each night in an uncomfortable public shelter. After about 12 weeks of air-raid warnings, she became exhausted, showed a slight clouding of consciousness, and rambled about childhood days. By the next day she was completely disorientated and confused; she could not tell her name, could not sleep, and would not eat. There were no signs of organic disease of the nervous system.

She made a rapid recovery, the acute symptoms subsided in two or three days, and in three weeks she was perfectly normal. There was no history of previous breakdown nor of family insanity.

Senile dementia.—Reacting in a similar way to the altered conditions of life was one case of senile dementia. This was a retired clerk, aged 69, who became extremely agitated as he found he could not adequately look after himself and his wife, aged 79, during air-raids. He became increasingly upset after air-raids, made frequent mistakes in his home duties, his memory failed, he lost the sense of time, and on admission presented the picture of early senile dementia.

Schizophrenic reactions.—In the one male and two female cases reported, the war may be said to have provided material for the elaboration and enrichment of the psychotic framework of the patient's life rather than to have acted as an aetiological factor. One case need only be quoted:

H. A. V—, a widow, aged 50. She had been peculiar for many years; little was known about her, for she kept to herself, living on a widow's pension. She was certified for noisy, aggressive conduct, and refusing to keep her house darkened. She stated that as she was the widow of a soldier, she had always been associated with the "military." They sent her messages and reminded her secretly when to apply for her pension; they communicated with her in many private ways. For this reason she took up her residence near a large barracks. She regarded the sirens as air-raid warnings specially sounded for her, and believed that as she had been "connected with the army" the anti-aircraft guns were fired expressly to protect her. She felt that her neighbours were spies, and was sure of this because at certain times the guns fired in a direction away from her house as the result of false information signalled by her next-door neighbours.

Reactions to blast.—The illness of two cases, one of each sex, appeared to be the direct result of the bursting of a bomb near the patient:

E. F. D—, male, aged 44, air-raid warden; no previous mental illness, no family history. During a severe air-raid he was knocked out when a bomb fell close to him; he seems to have been unconscious for a few minutes, but recovered quickly. The next day he appeared dazed and restless. For the next two weeks he could

not sleep, would not eat, would not stay in bed, and wandered aimlessly about his house.

He was admitted to the mental hospital as a voluntary patient.

When examined for the first time at hospital, the acute effects of the accident had largely passed off. The patient was rather nervous in manner, but discussed his case freely. He did not appear to have been severely concussed, for he could recollect what he had been doing just before the bomb fell, and could remember being dragged away afterwards. He could only describe the intervening fortnight as a time when he felt muddled, could not concentrate, and could not settle. There were no physical signs of damage to the central nervous system.

The examination of this patient is necessarily very incomplete, as he had nearly recovered before entering hospital. He slept rather badly the night after he was admitted, but next day seemed to be practically normal and said as much himself. He had entered hospital because he felt he was not making sufficient progress at home, and was anxious to get back to work soon. He left hospital at his own request a week after admission, apparently quite well. It has been reported that he worked in subsequent air-raids.

A. M—, female, aged 51, married; no previous mental illness, no family history of insanity. She enjoyed perfect health until the night of her accident. While she was rushing for shelter during an air-raid, a large bomb fell outside the house; the blast threw her against the steps. She was not rendered unconscious and was taken to the shelter. Next morning she appeared to have little idea of place or time, rambled in conversation, refused food and could not sleep. Seven days later she was admitted to the mental hospital. Her state on admission was one of great confusion; she could not tell her name, but she shouted and rambled unintelligibly. She tore up the bedding and stripped herself, was incontinent and filthy in habits, her tongue was dry, her lips cracked, and her pulse rapid. There was no other abnormality, and no signs of any lesion of the central nervous system and no external marks of injury. With adequate sedation she could be fed and got to sleep. Her mental state was practically normal one week after admission. A week later she was perfectly normal, conversed rationally, slept and ate well. She had no clear recollection of anything that occurred from just before the bomb fell until after she entered hospital.

These two cases clinically are very similar, although the description of the acute stage of the first was supplied by the relative. In each, a severe confusional state developed rapidly, but not immediately after the bursting of a bomb nearby; in each, the patient recovered in three weeks, and was able to return to normal duties subsequently. In neither case was there any history of insanity or of previous mental illness. There were no ascertainable causative factors apart from the bursting of the bomb. It is difficult to decide just what physical disturbance produced this state. One would expect that a bomb bursting close enough to throw the patient down and traumatize the brain would cause other signs of blast injury on the body or lungs. On the whole, it seems likely that in these two cases there was some cerebral contusion of small extent which subsided in two or three weeks. Hadfield and Christie (2) have described a case in which fatal blast injuries of the lungs were accompanied by bilateral, symmetrical subarachnoid haemorrhages over the occipital lobes without other damage to the membranes or brain. Blast rather than noise or fear seems alone to have been responsible in the two cases described above.

III. Reactions of Patients in the Mental Hospital.

For the patients in the mental hospital the war brings fewer fresh problems and less interference with customary life than for those outside. The special responsibilities and many of the hardships inseparable from air-raid conditions do not touch them. To some small extent, the war is brought home by the less frequent visits and the less luxurious parcels they receive, by a degree of overcrowding, and by early bedding hours enforced by the black-out. In this hospital the majority of patients sleep on the ground floor in wards and rooms which have been specially strengthened. There is a limited cellar accommodation to which parole types of patients have access on "blitz" nights.

During the early raids, warning bells sounded in all the wards if the raid was likely to be of any consequence. This bell, the change of sleeping accommodation, the sirens, and the noise of anti-aircraft guns provided the only real contact that the patients had with the war. From the first, certain reactions, less dramatic than might be expected, were observed. Broadly the hospital took and takes little notice of the noise. Probably the noise of guns, sirens and aeroplanes seem to belong to a world too far beyond the walls of the hospital to have any real interest. But from the first night the warning bell, breaking the peace in the large chronic wards, was greeted by angry shouts from the disturbed slumberers. No amount of explanation sufficed; the bell came from within, it was an intrusion on institution life, and in the interests of assured peace, at the expense of doubtful security, the warning bell had to be silenced. More recently, when bells are no longer necessary to give proof of the enemy's intention, the chronic wards sleep on through the continuous gunfire, and apart from a few restless cases early in the evening, patients in these wards ignore the whole horrible performance. This is one of the most striking and revealing impressions of the reactions of the chronic institutional patients.

Schizophrenics, chronic maniacal and chronic melancholic types with a few epileptics form the bulk of the patients in the chronic wards. Their reaction to air-raids is therefore the reaction of chronic psychotics as a whole. Just as their psychosis insulates them from the ordinary importances and responsibilities of daily life, so it shuts out and muffles the sound of the guns that come from a world they have left. During the day, when sirens blow, one has an opportunity of observing how unreal and unimportant these sounds seem to be. It is as if they were observing an action taking place, which had no greater reality than the action on the screen of a cinema.

Among schizophrenics in the active stage of illness can be noticed a tendency to incorporate current events in the psychosis.

Ideas of reference relating to espionage, secret air-raid warnings, and even German plots for invasion are, as might be expected, not infrequent. A

patient referred to before, H. A. V—, illustrated well how fresh material related to her fantasies could be added to increase the range and texture of the delusions.

This patient had for years, evidently since the death of her husband (he was a soldier), received mysterious communications from a military barracks behind her house. As far as was known her behaviour attracted little attention until air-raids commenced. She then made accusations against her neighbours about espionage, believed that the guns and sirens were operating for her benefit and so forth. It is certain that until the commencement of air-raids there had been no military operation which in any way would have affected her life. Nothing real and of great significance therefore occurred in the sphere of her psychotic ideas. Gunfire and sirens belonged both to the fantastic and coincidentally to the real world, and stimulated and built up her psychotic life. In this, one can see that the emotions of a schizophrenic may be linked with fantasies that have something of a real existence, a change which can produce a change of emotion, of activity, and even of intention in the patient.

To the rest of the environment the schizophrenic may be largely or wholly indifferent, and in this, no doubt, lies the reason for the indifference of the bulk of the chronic, psychotic patients to the air-raids.

In the melancholic, and even in the involutional melancholic, similar examples occur. It is not necessary to treat of them in detail ; to the familiar ideas of unworthiness are now added the ideas of being a " shirker," of having neglected duties, black-out or other A.R.P. regulations ; of having wasted money, not having invested in National Savings and so forth. Examples of this sort must be common in every mental hospital.

Psychologically similar is the behaviour of mischievous chronic manics who mimic the noise of sirens with an alarming accuracy. These patients may know very well what the sirens are and what their significance is, but they fail to show any realization of their serious purpose or of their use as warnings of real danger.

On the whole then it may be said that the protective shield of psychotic illnesses effectively damps out the realities of war.

Very different is the reaction of another type of patient met with in every mental hospital. This is the chronic non-deteriorated individual, probably regarded as a psychopathic personality, the author of many complaints and letters to the Board of Control, the crafty agitator who teaches new patients to evade hospital rules, and whose pre-institutional life may have been interrupted by terms of imprisonment. One such patient was formerly a valiant and aggressive mob-orator in Hyde Park. Patients of this type of both sexes at this hospital have shown a disproportionate degree of fear. They have been submissive, anxious to seek the cellars, ready to put the question, " Is it safe here ? " eager to receive reassurance and grateful for it.

Hospital experience suggests that it may be among such constitutional personality types that grave psychiatric casualties occur.

It may be argued that what has been described is an artefact, and the result of the "institutional psychosis"; if the "institutional psychosis" has any reality it cannot affect the reactions of the newly admitted, and among these no noticeable deviations were observed.

All new admissions irrespective of the case histories appeared to behave much as any corresponding sample did in times of peace.

Commentary.

It must be stressed at the outset that any conclusions arrived at in this paper are based on experience of certain forms of mental disorder drawn from the poorer classes of people. The more acute results of war strain, such as anxiety, are unlikely to be seen among the mental hospital patients.

Already valuable papers have appeared dealing with this aspect of war psychiatry. Pegge (3) found that during September, 1940, a period of intense air-raids on London, surprisingly few psychiatric casualties occurred. This was confirmed by Wilson, Dicks, *et al.* (4) from cases examined at clinics, base hospitals, and first-aid posts. Massey (5) states that in Coventry there has been a decrease in the number of attendances at psychological out-patient clinics, and, allowing for the voluntary evacuation of the nervous people and potential patients, there seems to have been no increase in neurotic and acute reactive illnesses.

These findings are interesting in that experience contradicts theory based on peacetime conditions, and on the reaction of troops serving in previous wars. A distinction should be drawn between breakdowns occurring in troops actually exposed to warfare and in those conscripted or merely serving.

The serving troops lead a life for which they may have little aptitude and less liking, different from what they have been accustomed to. In this war the civilian population more closely resembles the regular soldier who follows a profession of his own choosing, exposed sometimes to dangers inseparable from it. In well-trained regular troops, serious mental disorder is not more frequently met with than in a corresponding section of the civil population (Henderson and Gillespie (6)).

The number of patients admitted to this hospital in 1940 is no larger than in peacetime, and taking into consideration factors which tended to swell the admission rate, it seems certain that since the Bristol Mental Hospital alone receives all the municipal cases of recent certifiable or serious forms of insanity, there has been some absolute reduction in the incidence of these forms of mental disorder during the year. Furthermore the number of female patients admitted has been less, and of voluntary female patients very much less in 1940 than in preceding years.

Both a negative and a positive conclusion suggest themselves, namely that the psychogenic importance of war on civilians is negligible, and that it proves beneficial to persons of a certain mental constitution, as shown by the fall in female voluntary admissions. Many causes contribute to the reduced number of female voluntary patients. The greater opportunities for employment, even for individuals with little initiative or self-confidence, in well paid work among large numbers of other persons; the sense that that work has an ethical as well as a practical value must be of great importance. The idle and complaining member of the household gets very little sympathy at home, and in the mental hospital fewer visits and less extra comforts. A more ordered life with prospects of settled employment removes a common cause of insecurity in younger women. Uniforms and badges have a certain glamour, and endow the wearer with a sense of importance and recognition of personal worth or even indispensability previously not accorded. More than one former female patient is to-day in the A.R.P. services.

There is also more to do in the home; ex-patients report how glad they are to look after children whose parents are working, to knit or to help after air-raids in their district. This gives them a common link with others after perhaps years of being misunderstood and excluded. Family and intimate social life have increased since entertainments, shopping and travelling are restricted; there are decreased opportunities for the acquisition of idle habits, the black-out and air-raids imposing a sort of curfew in raid-frequented cities. The necessity of extending hospitality to neighbours, friends and the homeless seems to have brought reality closer to the shut-in mind: as one hypochondriacal woman said, "You can't think of yourself when everyone is going through so much."

Better wages and less unemployment among men produce more wage earners and allow more home comforts and a better standard of living in working-class homes. It is possible, for this reason, that in a number of households, mental patients are being looked after rather than separated from the family.

These special factors apply more to women than men. Apart from military service and the inevitable general changes resulting from the war, living conditions for men have not been so greatly affected.

After the initial months of anxiety the realities of air-raids, bad as they are, hardly came up to what imagination had devised, and general anxiety soon disappeared before the need of making adjustment in a changing environment.

The civil population seems to think of this war as a rather personal matter and one in which they all would like to play a part. In this perhaps they resemble the better types of regular troops. The herd instinct operates strongly, and regimentation has been accepted gladly because it is productive and essential.

The case histories of the 354 patients admitted in 1940 show that excluding two cases where an acute confusional illness followed damage by blast, in only 29 patients did the war act as a contributory factor, and that pre-existing family or constitutional taints may have rendered these individuals susceptible to variations in the routine of ordinary life. No case was admitted in the course of the year in which war was the sole ascertainable causative factor. The occupations most exposed to danger, such as A.R.P. wardens, ambulance drivers, firemen and the like, contributed only one case, an air-raid warden injured by blast—an indication that psychiatric casualties are rare among individuals bearing great responsibilities and exposed to danger. A very small number of the patients had been employed in factories of military importance. Residence near these dangerous places was not found to contribute anything in the histories of the female patients. Wilson (4) has shown that there were not more than 15 obvious psychological disorders among 1,100 entries in a St. John Ambulance shelter log-book from a much bombed area. Significant also is the unusually small number of applications for "temporary" admission, a form of procedure so applicable to acute disturbances of volition.

The behaviour of patients in the hospital has shown that the psychotic is no more susceptible to war than to any other changes in his environment. Outside his psychotic life he accepts no responsibilities and has no fear. It is probable that war can only be a minor contributory factor in the development of psychotic states.

Communal life both within and without the hospital is no doubt important in combating fear and anxiety. Reliance on numbers is a primitive tendency obscured by civilization, but brought to light again in time of common peril. In this connection mention may be made of the large increase in the eating of sweets since the outbreak of war—a practice widespread and commonly reported. Freudians might with justification regard this, like smoking, as a form of oral gratification and a regression to a primitive level when in danger.

The ratio of patients discharged "recovered" to cases admitted in 1940 (33 per cent.) is exceeded in only three of the last ten years. Without overestimating the importance of this finding, it shows that, as the majority of patients spend at least one month on trial at home before obtaining their final discharge, relapses from trial were infrequent. Relapses while on trial diminish the discharge rate, subsequent relapses return as new admissions, and by increasing the admission rate, decrease the discharged recovered ratio. Several patients returned to homes in bombed areas, and some were "bombed out" while on trial. The number of patients admitted in the period following the severest raids on Bristol was no larger than in any other period of the year, and rather less than the corresponding periods of most preceding years. None of the cases admitted after these raids had been directly affected by them. This study suggests, and provides some objective evidence to show that the

early effects of war on the mental health of a large city are negligible, and that war only contributes to the production of serious mental illness in individuals of susceptible constitution.

Complete recovery from a mental illness has not appeared to render the individual more sensitive than anyone else to wartime changes in the environment. The reaction of psychotic patients as a whole lead one to expect the reverse. The freer opportunities that war gives to instinctive tendencies are not without their benefits ; aggressiveness finds useful outlets, and danger adds a spice to action and responsibility, enhanced if shared with others.

Summary.

The number of patients admitted to the mental hospital in 1940 shows a reduction on preceding years. The admission rate has been analysed and discussed.

Case histories have been examined showing that war acted as a minor contributory factor in 29 out of 354 admissions.

Family or constitutional taints were noticed in most relevant cases.

Two cases of confusion following exposure to blast have been described.

Reactions of patients in the mental hospital in wartime have been considered.

The view is expressed that, up to the present, the war has had little adverse effect on the mental health of the general population, and has been of benefit to certain types of individuals, especially women.

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