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PROGRESS IN THE PSYCHIATRY OF WAR

At this stage in the war, during which we have seen so many great strides taken in both medicine and surgery, it is pertinent to ask what have been the advances made by psychiatry. Development has been as great in this as in other fields; and when we take into account how much less is known of the working of the mind than of the body the proportionate advance that has been made is even greater. There is no need to mention here the progress in treatment of the psychoses, in neuropathology, endocrinology, electro-encephalography, and along many other lines, to which an interesting special number of the *Journal of Mental Science*[1] was recently devoted. The impetus of war experiences has made itself principally felt in the study of personality, normal and abnormal, and of the neuroses. The stresses of war tend to provoke a neurotic type of breakdown, and during this war, as in the last, there has been no increase in the incidence of the psychoses. In a careful study Aubrey Lewis[2] has shown that among civilians the incidence of the neuroses has been surprisingly low—lower than in the Forces, and perhaps little greater than in days of peace. The reason for this is not clear, but it may be related to the end of unemployment, better standards of nutrition, and the provision of a real aim in life. Compared with the men and women in the Forces the civilian has retained liberty of action, allowing him to deal in his own way with the stresses of enemy action.

Numerous studies[3-7] have contributed to our knowledge of the clinical features of neurotic breakdown. All observers agree that there are symptomatic differences between the neuroses of the last war and this. In recent years anxiety neuroses and reactive depressive states have predominated, whereas in the last war the commonest neurosis was conversion hysteria, and anxiety states were principally confined to officers. The same observation has been made in Germany, where it was attributed to the National Socialist ideology.[8] In this country the difference has been attributed to a generally higher standard of education of the public; but it may also be the result of a higher standard of education among medical officers, who are now prepared to admit that a man may be ill with anxiety, and no longer require that he should be hysterically blind, deaf, or paralysed before admitting that the mind may react harmfully on the body. "Disordered action of the heart"—a favourite diagnosis in the last war—has given place to "effort syndrome"; and now that that has been shown by Paul Wood,[9] Lewis,[10] M. Jones,[11] and others to be in every respect the equivalent of an anxiety neurosis it too has lost favour and has become a rare diagnosis. No longer do we talk of "shell shock": the organic approach has given place to such a preference for psychological interpretation that, with one exception (Anderson[12]), there have been no descriptions of the abnormal neuropsychiatric states that certainly arise from blast injuries. But such states as the result of head injury have been studied very closely, as appears from the recent review by E. Guttman.[13] At a varying time after the injury a syndrome of headache, giddiness, and nervous instability (Symonds[14]) is likely to emerge, particularly in the elderly and the neurotically predisposed. These symptoms tend to come and go in a way closely related to circumstances, and may even appear to be hysterical in nature; but the importance of the organic substratum is not now doubted.

Bodily changes of a reversible physiological kind may also help to bring on neurotic syndromes, especially in the acuter war neuroses, as has been emphasized by Sargant.[15] Many acute anxious and hysterical syndromes, apt to arise in men exposed to heavy bombing and shelling, do not appear before there has been physical exhaustion by loss of weight and lack of sleep. Treatment by securing some days of sleep and building up the general physical state with abundant food and doses of insulin has proved very successful. Prophylactic sedation may also be of value in saving the man in the line who has begun to show signs of wear.[16-18] The main external causes of breakdown in battle are, however, psychological strain and tension. Symonds[19] has shown that in aircraft crews the effects of anoxia, of acceleration, and of decompression are not so important as the emotional tension resulting from the prolonged exercise of courage. Lord Moran[20] has emphasized the same point: courage is a capital account, on which big and repeated drafts can be made only at the risk of bankruptcy. Symonds[21] points out that there is another side: a man may become conditioned to the stimuli which arouse fear in the tyro, so that in him they lack their usual effect. Symonds has gone some way to interpreting these effects in the light of the interplay of excitatory and inhibitory mechanisms in the C.N.S. The emotion of fear is a normal one, and the stresses of war are such as to have their effect on normal men, who can thereby become neurotic. There is, however, much individual variation in susceptibility to stress. According to the Slaters[22] men vary in the degree to which they are predisposed to breakdown in much the same way as they vary in height or intelligence. Big deviations from the average are rarer than smaller ones; and men who are very short or very panicky, or on the other hand are tall or immune to anxiety, are rare in proportion to the degree to which they show these characteristics. These quantitative individual differences may well be

1 *J. ment. Sci.*, 1944, **90**. Special Number.
2 *Lancet*, 1942, **2**, 175.
3 Curran, D., and Mallinson, W. P., *British Medical Journal*, 1941, **1**, 305.
4 Cooper, E. L., and Sinclair, A. J. M., *Med. J. Austral.*, 1942, **2**, 73.
5 Love, H. R., ibid., p. 137.
6 Slater, E., *J. Neurol. Psychiat.*, 1943, n.s., **6**, 1.
7 Torrie, A., *Lancet*, 1944, **1**, 139.
8 Störring, G., *Bull. War Med.*, 1942, **3**, 33.
9 *British Medical Journal*, 1941, **1**, 767, 805, 845.
10 *Proc. roy. Soc. Med.*, 1941, **34**, 533.
11 *Lancet*, 1941, **1**, 813.
12 *J. ment. Sci.*, 1942, **88**, 328.
13 Ibid., 1944, **90**, 328.
14 *Injuries to the Skull and Spinal Cord*, Brock, S., 1940, p. 69, Baltimore.
15 *Lancet*, 1941, **2**, 212.
16 Sargant, W., *British Medical Journal*, 1942, **2**, 574.
17 Grinker, R. R., and Spiegel, J. P., not yet published in unrestricted form.
18 Heath, R. G., and Sherman, S. H., *Amer. J. Psychiat.*, 1944, **101**, 355.
19 *British Medical Journal*, 1943, **2**, 703, 740.
20 *The Anatomy of Courage*, 1945, London.
21 *Lancet*, 1943, **2**, 785.
22 *J. Neurol. Neurosurg. Psychiat.*, 1944, n.s., **7**, 49.

determined in part by heredity. Differences in the type of neurotic response are associated with differences in bodily build. W. L. Rees and Eysenck[23 24] have found that the broadly built and sturdy are more likely than others to show hysterical reactions, while the relatively tall and narrow are more prone to anxiety reactions and effort syndrome.

From the point of view of the armed Forces the neurotically predisposed have to be weeded out from combatant duty. This is but one of the problems that face departments for selection of personnel. Men have also to be chosen for the occupations that will suit them best, and the best men have to be chosen for these occupations by a system of priorities. All duties in the Forces tend to become more and more specialized, and the round peg is less likely to break in a round than in a square hole. The work done along these lines is still secret history, but considerable success has been attained.[25 26] Perhaps the most important part of prophylaxis is played by good training and the maintenance of corporate morale. However, even here the doctor can help (Spiegel[27]). Once a man has begun to show the first signs of breakdown he must be treated as rapidly as possible. Quite a different type of psychiatric organization has accordingly been built up in this war from that available in the last. Treatment has been predominantly in units near the front line instead of far away at the base. Apart from the physical methods already mentioned, abreactive techniques such as narco-analysis[28-31] have proved valuable. While reduced to a semihypnotic state by barbiturates or ether the man is forced to re-live the frightening experience which precipitated breakdown; recovery of lost memories, disappearance of panic states, and abolition of battle dreams may be obtained with little demand on the doctor's time. It seems that these traumatic neuroses are not entirely inaccessible to psychoanalysis,[32] but owing to the size of the problem short-cut methods have to be employed. The need for economy of time has led to group psychotherapy,[33] in which large numbers of men may at the same time be taken over their problems, so many of which are held in common. The acceptance by one man of a reasonable explanation has its effect on all the others. When the psychiatric history of the war comes to be written it will make a fascinating chapter and be full of lessons for the psychiatry of peace.

[23] *J. ment. Sci.*, 1945, **91**, 8.
[24] Ibid., p. 89.
[25] Rees, J. R., *British Medical Journal*, 1943, **1**, 1.
[26] Line, W., and Griffin, J. D. M., *Canad. med. Ass. J.*, 1943, **48**, 394.
[27] Spiegel, H. X., *Amer. J. Psychiat.*, 1944, **101**, 310.
[28] Mallinson, W. P., *J. roy. nav. med. Serv.*, 1940, **26**, 281.
[29] Sutherland, J. D., *British Medical Journal*, 1941, **2**, 365.
[30] Wilde, J. F., ibid., 1942, **2**, 4.
[31] Sargant, W., and Slater, E., *Lancet*, 1940, **2**, 1.
[32] Rosenberg, E., *Internat. J. Psycho-Anal.*, 1943, **24**, 32.
[33] Jones, M., *Amer. J. Psychiat.*, 1944, **101**, 292.

CHEMICAL DISINFECTION OF THE AIR

The war which brought into being underground communal dwellings for civilians and overcrowded training camps for Service men and women has given a great impetus to studies on the mode of spread of respiratory infections and on methods for their control. The older conception that respiratory diseases are spread only by direct droplet infection requiring close contact has given way to the view, supported by an increasing volume of evidence, that infected dust and droplet nuclei which carry the infecting agents a considerable distance from their source are also important vehicles. In other words, air, like water, can be polluted bacterially as well as chemically, and in any inhabited intramural environment "respiratory" infections may be acquired without direct contact with a human reservoir. The risk will be greatest where the load of infection is heavy, due either to a high proportion of carriers or to overcrowding; or where the community at risk contains a large number of susceptibles. Thus, hospitals for infectious diseases, children's wards, schools, barracks, transport vehicles, and places of assembly will be the main depots for the dissemination of air-borne infection, and practicable methods of control will have to be applied at these focal points if the incidence of respiratory infections is to be materially reduced.

Methods that have already been devised and tested in the laboratory are dust suppression by oiling floors and fabrics, and disinfection of the air by ultra-violet light or by special chemical disinfectants atomized into the air. These methods are now being tested under field conditions, and only this practical experience will tell us what will be their respective spheres of influence. The likelihood is that they will prove complementary to each other, particularly as both physical and chemical aerial antiseptics lose much of their efficacy in the presence of dust. Evidence that oiling of floors and bed-linen[1] and the use of ultra-violet light[2] are efficacious in controlling the spread of respiratory infections has already been published. On the other hand, field trials of bactericidal mists (the earlier name "aerosol" is regarded as a misnomer) have been rare, despite the large amount of experimental work both here and in America. However, technical difficulties are being overcome, and reports on the value of chemical disinfection of the air in hospitals and in Army barracks are now appearing. Thus Harris and Stokes[3] have carried out an extensive trial of vaporized propylene and triethylene glycols in the wards of a seaside convalescent home for children. Conditions were particularly suitable for testing aerial disinfection; most of the children were confined to bed with rheumatic infection or for orthopaedic treatment, so that direct droplet infection was minimal. There was little ward traffic and the children were out on the balconies during warm periods; infected dust was therefore probably not a serious factor. The six test wards were all identical except that three were on the ground floor and three on the first. Propylene glycol was used in the first two winters and triethylene glycol in the third winter. The glycols were vaporized by immersion of an electric resistance coil in a beaker containing the fluid, and the vapour was dispersed by electric fans. One ward of a pair was treated with the aerial disinfectant for a 3-weeks period, followed by a 3-days break to allow any incubating infections to declare themselves; then the other ward was treated while the original treated ward served as a control. A record was kept of all upper respiratory infections, classified as coryza, nasopharyngitis, tracheobronchitis, and otitis

[1] Wright, J., Cruickshank, R., and Gunn, W., *British Medical Journal*, 1944, **1**, 611.
[2] See *Aerobiology*: Amer. Ass. Advancem. Sci., Washington, 1942.
[3] *Amer. J. med. Sci.*, 1945, **209**, 152.