THE MENTAL HEALTH OF BRITISH TROOPS IN THE FAR EAST.*

By R. F. Tredgold, M.D., D.P.M.

Reasons for Choice of Study.

The general importance of studying the mental health of British troops in the Far East is obvious enough. It is perhaps less obvious that this importance is unlikely to have diminished with the end of the war; for there are still many troops serving in the Far East, and presumably will be for some time.

Some information of the factors likely to affect them may be obtained by studying soldiers in base areas in wartime. In doing so, it becomes evident that the latter have in any case received less attention than they deserve, even if it were only a question of their immediate influence. Most writers have been concerned first and foremost with soldiers in the front line. This is natural enough, for the soldier's first duty is to fight, and the greatest stress he has to undergo is widely considered to be that of enemy action. The psychological problems in base areas have, therefore, seemed a secondary matter—whether they are those of the general or the private.

But on reflection it may be seen that base areas deserve at least as much study as forward—perhaps more. This is because the more technical war becomes, the greater is the number of men needed behind the lines. Each fighter pilot, each submariner, each tank trooper, needs many men behind him to keep his weapons in his hand. Even the modern infantryman needs several men—in uniform or overalls. It is their failure which may cost him his life or the army defeat. This may occur either directly, by an actual shortage of equipment, or indirectly, by an effect on morale. A drop in the morale of base workers results in strikes, political squabbles, profiteering or immorality; all of these have their repercussions on the soldier at the front. At the least, they distract his attention so that he has to fight looking over his shoulder. At the most they deprive him of confidence in his countrymen—leaders, comrades or family—and thus lower both his war aims and his sense of security. Both of these are cardinal. The health of everyone in the chain of supply, whether soldier or civilian, is thus inextricably bound up with the morale and efficiency of an Army in the field.

Soldiers in base areas overseas obviously constitute a link in the chain. A study of their mental health is, therefore, of direct military value in war; and it may provide information about problems of the peacetime army overseas. Finally, it may contribute to our knowledge of group behaviour, and perhaps even suggest remedies for some social problems.

It is realized that some time must elapse after a war before its lessons in

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medicine can be fully digested. The report of the War Office Enquiry on Shellshock (1922) showed that this was so after 1918; it also showed that there were some dangers in delay—for instance by the spread of the very term shellshock—and that accounts published moderately early were valuable both because they were a basis for discussion, and because memory was fresher. It is, therefore, considered permissible at this time to submit the observations made during the course of 1943–45.

As the First World War provided much information about the effects of one particular stress on the human mind (that is, battle), so it may be that the second will enlarge our knowledge of other stresses—in particular the less spectacular domestic and personal problems of the individual.

Outline of Work.

The original work was planned on the following lines of approach:

(1) A study of examples of the gross failures of mental health. This is, of course, a method always to the hand of the psychiatrist. Those failures are his clinical cases, and the factors which produce them are worth detailed investigation.

(2) A study of examples of minor failures of mental health. These are men who do not report sick, but are nevertheless not in perfect mental health, happiness or efficiency. It is probable that they are far more numerous than the frank breakdowns. They are not always seen by the hospital psychiatrist, but are known to regimental officers, combatant as well as medical.

(3) A study of various factors considered likely to affect the health of troops, and a comparison of different occasions when these factors were present or absent.

The details of the studies undertaken for this purpose were as follows:

(i) A general survey of the numerical incidence of psychiatric cases in British troops in South-East Asia and in Southern Army (India).

(ii) An individual survey of 700 British out-patients in a base area in India. These formed a consecutive series between September, 1943, and February, 1945 (except for the omission of a few whose case-notes were inadequate). Their symptoms and aetiology were studied in detail, and an analysis was made to discover any correlation existing between the types or symptoms, of individual and of stress.

(iii) An individual study of certain other groups of patients, who were apparently under the influence of special circumstances in South-East Asia.

(iv) A general study of the factors affecting the health and morale of troops on duty; this was carried out by informal discussions with numerous officers and men in India and South-East Asia.

By the means of studying the health of large groups of men, and of discussing their problems with experienced officers, I hoped to be able to throw light on the extent to which broad influences (which are difficult to measure in any given case) affect the health of the army as a whole. Lest, however, this information should be thought too general in its nature, the detailed investigation of individual cases was also undertaken to provide confirmation.

For the sake of convenience, however, the findings of both investigations have been grouped together under certain heads. These are :

A. The incidence.
B. The symptomatology.
C. The factors.

A. The Incidence : General Survey.

The incidence of psychiatric cases among British troops in the Far East may be conveniently surveyed under three heads. These are :

(i) Incidence per strength.
(ii) Ratio to all disabilities.
(iii) Distribution of various syndromes.

(i) *Incidence per Strength.*

The ratio of psychiatric cases per 1,000 strength (i.e. healthy and sick troops) is not possible to give for Southern Army in India, since the average number of British troops in the area in each month is not available with enough accuracy.

The incidence in South-East Asia is obtainable for British troops, and the monthly rates are available for officers and other ranks, separately, showing the number of psychiatric admissions of each per 1,000 total strength, as follows :

Table I.—*Incidence of Psychiatric Admissions in South-East Asia.*

	Officer cases per 1,000 officers.	Other rank cases per 1,000 other ranks.
May, 1945	1·13	2·21
June	1·15	2·30
July	1·94	1·14
August	0·94	1·13
September	1·37	0·93
October	0·45	0·57
November	0·25	0·43
December	1·08	0·79
January, 1946	1·19	1·0

I may call attention to several aspects of these figures :

(i) Among officers there are steep rises in July and September, 1945.

(ii) Among other ranks there is no comparable rise in these months, the peak having been reached in June.

(iii) In October and November, 1945, figures for officers and other ranks fell below the average for the United Kingdom (quoted in para. 3 above). But apart from these two months, the average rate was far higher and exceeded even the rate of Middle East Force.

These figures do not make any distinction between front line and other troops, and it is very difficult to obtain any reliable evidence on these points.

The number of British troops in any psychiatrist's "territory" was by no means constant, so that it is difficult to obtain reliable figures in this way.

(ii) *Ratio to all Disabilities.*

The ratio of psychiatric cases to all cases is not available either for admissions to hospital or for out-patients in India.

It is, however, possible to give the ratio for cases evacuated from the Far East, for Southern Army in 1944 received all cases for evacuation to England from India and Burma, and the proportions obtained by myself from the Standing Medical Review Board were :

	All cases.	Psychiatric cases.	Percentage.
Officers . . .	1,259	286	22·7%
Other ranks . .	6,771	1,700	25·2%

It will be seen that although this figure is lower than the 40% reached (in the Western theatre) in 1914–18, it nevertheless exceeds the evacuation rate from Europe in 1939–45.

In South-East Asia monthly figures are available which show that the proportion of psychiatric admissions to all admissions ranges from 1·1 per cent. to 4·5 per cent.

(iii) *The Distribution of Various Syndromes.*

This has been studied in several large groups of patients (all British soldiers) :

(*a*) The 700 out-patients seen between September, 1943, and February, 1945, and selected for the detailed analysis later described. The proportions here were psychoneurotics and psychopaths, 78·0 per cent., defectives 14·0 per cent., psychotics 2·9 per cent., and others 5·1 per cent.

(*b*) The total out-patients seen in the whole of Southern Army (India) between 1 January, 1944, and 30 June, 1945. The proportions are psychoneurotics and psychopaths 80·5 per cent., defectives 6·0 per cent., psychotics 3·9 per cent., and others 9·6 per cent.

(*c*) The total in-patients seen in the same area as (*b*) and nearly the same period (1 July, 1944–30 June, 1945). Of these psychotics formed 14·9 per cent.

(*d*) The total out-patients in South-East Asia between April and June, 1946 (figures obtained from colleagues). Of these, psychotics formed 3·9 per cent.

(*e*) The total of in-patients for the same period and area as (*d*). Of these, psychotics formed 38·1 per cent.

(*f*) The total of in-patients for the same area but several months earlier (i.e. November, 1945, to February, 1946) of these psychotics formed 49·2 per cent.

It is unfortunate that the figures for the out-patients corresponding to (*f*) are only available for January and February.

(In groups (*b*)–(*f*) inclusive the figures are partly from my own cases, partly from those of colleagues, whose returns were submitted to me.)

It must be remembered that some psychotics will by-pass out-patient departments and reach hospital direct, so that out-patient figures will be rather too low. On the other hand, since practically all psychotics are admitted (but by no means all psychoneurotics), the hospital admission rate will be too high, and will in fact only show the ratio of psychoses to the total of *severe* psychiatric disorder. Similarly evacuation rates will show an even higher proportion of psychotics.

Information from this rather random harvest may be more easily gathered if the figures are stated in some order, shown as the proportion of psychosis to total psychiatric cases, and compared with those of para. 5 above. Table II summarizes this :

TABLE II.—*Ratio of Psychosis to Total Psychiatric Cases in Various Theatres* (*only British Troops*).

Theatre.	Date.	Percentage in out-patients.	Percentage in admissions.
U.K.	1943–'44	2·2–2·9	16·3–26·5
M.E.F.	Oct. '43–Mar. '45	4·9–7·4	19·0–31·3
Various corps and divs. in Burma	Oct. '43–Mar. '45	3·0–6·5	Unknown
Selected out-patients (India)	Oct. '43–Feb. '45	2·9	,,
Southern Army (India)	Jan. '44–July '45	3·9	14·6–19·7
South-East Asia	Nov. '45–Feb. '46	7·25 (Jan. and Feb. only)	49·2
,, ,,	Apr.–Jun. '46	3·9	38·1

From this it can be seen that (i) there is generally a higher rate of psychosis among out-patients of British troops in the East, (ii) that there was a rise among in-patients in the Middle East and, very markedly, in South-East Asia, but not in Southern Army. (It is possible that the last figure, which is lower in proportion than the out-patient figure, may be partly explicable on the grounds that there are more non-psychotics admitted to hospital, since alternative disposal (e.g. the Pioneer Corps) is precluded by the conditions of service).

B. THE SYMPTOMATOLOGY.

(*a*) *Psychoneuroses.*

This is better seen from a more detailed study of a smaller group, and to this end the group of 700 British out-patients (mentioned in paras. 21 and 23) has been analysed in detail (see Table III).

The classification of psychoneurosis used in Table III is not that laid down in the Army nomenclature and needs some explanation.

The four groups were separated on purely descriptive grounds, according to their superficial appearance.

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TABLE III.—*Psychoneurotics in 700 Out-patients.*

	Officers.	Other ranks.	Total.	Percentage officers in total.
(*a*) Free anxiety	60	160	220	27·3%
(*b*) Psychosomatic syndromes	18	222	240	7·5%
(*c*) Depressive features	11	23	34	32·4%
Total psychoneurotic less obsessional	89	405	494	18·2%
(*d*) Obsessional states.	5	9	14	35·6%
Total all cases	113	587	700	16·1%

Thus Group (*a*) covered those cases where anxiety occurred without complaint of physical disability.

Group (*b*), psychosomatic syndromes, contained cases whose presenting symptom was a physical complaint. This group was split up again on descriptive grounds into seven sub-groups, named after the site of their complaints, as follows:

(i) Head: Reserved for those in whom headache was the main complaint (except anxiety states as mentioned above). It was found that dizziness was often associated with headaches, and sometimes with complaints of eye-strain or photophobia.

(ii) Chest: Consisting of precordial pain and dyspnoea on exertion, palpitations and tachycardia.

(iii) Alimentary tract: Including epigastric pain, flatulence, diarrhoea, anorexia.

(iv) Back and neck: Complaints of fibrositis, lumbago, rheumatism (without adequate organic cause), and muscular stiffness or pain.

(v) Legs: Complaints of sensory or motor trouble, which interfered with locomotion.

(vi) Genito-urinary system: Including frequency, enuresis and pain.

(vii) The remainder were a heterogeneous collection, including deafness, blindness, stammer (of which incidentally there were only six cases), and fits.

It will be observed that no distinction here has been made between hysteria and visceral neurosis. This omission has been deliberate, since it is hoped first to present a clear picture of the presenting symptoms, and only later to discuss the underlying psychopathology, and consider which of these two terms was more appropriate for each particular case. It will be seen that groups (*a*) and (*b*) correspond practically to Ewalt's definition of simple anxiety (see below) and pyschoneurosis respectively; his third group contained cases with structural alteration. Now it is in fact difficult to decide whether or not any given case has a structural alteration, so that it is considered better, in a descriptive classification, not to separate such a group, but to include cases with possible structural change in Group (*a*) or (*b*) (whichever is appropriate to their presenting symptoms).

Group (*c*), psychoneuroses with depressive features, is again a descriptive label for those cases in whom the presenting symptom was depression rather than anxiety, and in whom there was no physical complaint.

Group (*d*), obsessional states, consisted mainly of long-standing cases whose precise aetiology was difficult to determine at an out-patient interview. For this reason, and because of their relatively small number, they have not been included in the analysis of factors which follows.

The psychoses have been described elsewhere (Tredgold, 1947).

C. ANALYSIS OF FACTORS.

The responsibility of the various factors is studied in several groups, the main one being the 700 out-patients mentioned. The 494 psychoneurotics in this group have been investigated in detail, and a summary of the findings is

shown in tabular form in an Appendix. For convenience, however, certain salient points have been withdrawn from this table, and are shown more simply in the main text. Material from other smaller groups has also been added where necessary to illustrate some particular point. Information obtained from my own observations in discussing these factors has been put in the shape of a commentary where it is relevant.

The various factors concerned were grouped in the literature under the heads of (i) Constitutional, and (ii) Environmental. This will also be followed here.

(i) *Constitutional Factors.*

These may be considered first in regard (*a*) to the psychoneuroses, later (*b*) to the psychoses, and (*c*) in general.

(a) *Psychoneuroses.*

An assessment has been made of each of the 494 cases, who have been shown as one of four types: (i) the dullards, men known to be in Selection Grade 5 (on the progressive matrices test); (ii) men with any psychosomatic trait, labelled here the " neurotic "; (iii) the normal; and (iv) the excellent, reported to have been outstandingly good at their work.

TABLE IV.—*The Relation of Previous Personality to Symptoms.*

Symptom.	Total cases.	Dull.	Previous neurotic.	Personality normal.	Excellent.
Psychosomatic:					
Head	78	13	13	45	7
Chest	35	5	9	18	3
Alimentary	40	8	11	17	4
Back and neck	24	1	4	17	2
Legs	15	2	2	11	—
Genito-urinary	17	5	6	5	1
Others	31	6	9	12	4
Total psychosomatic	240	40	54	125	21
Free anxiety	220	22	53	118	27
Depressive	34	4	4	24	2
Total	494	66	111	267	50
Percentages	100	13·3	22·5	54·1	10·1

It will be seen that—

(i) Over 50 per cent. of each group, except genito-urinary, were without evidence of previous instability.

(ii) Dullards were commoner among the psychosomatic syndromes.

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(b) *Psychoses.*

A survey has been made of constitutional factors in several groups of psychosis totalling in all 142 seen during this period.

(i) A group of 60 officers evacuated during 1944 from Burma and India. This forms part of a survey of 150 psychiatric officer casualties already referred to and published elsewhere (Tredgold, Heffernan, Kelly and Leigh, 1946).

(ii) A group of 59 cases evacuated from South-East Asia by hospital ship (H.M.H.S. "Atlantis") in March, 1946; they had become ill between August, 1945, and January, 1946.

(iii) A group of 23 manic states described elsewhere (Tredgold, 1947).

The presence of constitutional factors has been assessed as in Table IV above, that is as "dull," "neurotic" and "normal." There does not seem to be adequate evidence to grade any as excellent. The three groups are summarized in Table V, to show the high proportion of previously normal individuals.

TABLE V.—*Constitutional Factors in Psychotics.*

Group.	Total.	Dull.	"Neurotic."	Normal.
(i) Officers in India and Burma	60	—	8	52
(ii) Hospital ship in S.E. Asia	59	9	16	34
(iii) Manic states in S.E. Asia	23	—	2	21·3
Total	142	9	26	107

(c) *General.*

The effect of previous personality on prognosis can be shown by an analysis of the rates of evacuation to England (i.e. as unfit) of the several types.

TABLE VI.—*The Influence of Previous Personality on Prognosis.*

	All cases.	Dullards.	Neurotic.	Normal.
Total cases	494	66	111	317
Cases evacuated	185	39	26	120
Percentage evacuated	37·0	58·5	23·4	37·8

It is noteworthy that a greater proportion of normal than of neurotic had to be evacuated, but that dullards had a worse prognosis than either.

If both psychoneuroses and psychoses are considered together it may be seen that the evidence of previous instability is of very little significance. This is in line with writers quoted who refuse to place much reliance on "psychoneurotic traits." The evidence here is that previously normal and even excellent soldiers provide the bulk of psychoneurotics and psychotics among British troops in the Far East.

Dullness, however, is of more importance, and it is justifiable to say that the dullard's chance of developing psychoneurosis is above normal. Whether a dullard is also prone to psychosis is hard to say, and the results here are inadequate to allow of an opinion; for the cases available to study, being largely officers, do not provide a fair sample in this connection.

(ii) *Environmental Factors.*

General.

These were grouped as enemy action, domestic affairs, physical health, employment, war aims and faith, and group relations. Of these six, the first four include adverse factors whose presence can be later detected with comparative ease; the last two produce an adverse effect by lack of positive qualities which are more difficult to estimate. It has, therefore, not been thought practicable to demonstrate them numerically, and attention has been concentrated instead on the first four. First, their presence in the group of 494 psychoneurotics is plotted in Table VII against the presenting symptoms.

TABLE VII.—*The Relation of Environmental Factors to Symptoms.*

Symptom.	Number of cases.	Factors.					
		Several together.	Enemy.	Domestic.	Physical.	Work.	*Nil* traced.
Psychosomatics—							
Head . .	78	9	13	16	32	23	3
Chest . .	35	6*	8	8	18	6	3
Alimentary .	40	7	7	11	16	10	3
Back and neck	24	2	2	2	18	4	—
Legs . .	15	2	1	2	11	3	—
Genito-urinary	17	4	3	3	7	4	4
Others . .	31*	4*	3	7	15	8	4
Total psychosomatics	240	34*	37	49	117	58	17
Free anxiety .	220	41*	49	71	69	69	11
Depressions .	34	10*	6	23	7	9	—
	494	85*	92	143	193	136	28

* In several cases there were more than two factors operating, so a discrepancy in the totals will be evident.

The salient features are that—

(i) Physical factors were found in nearly 50 per cent. of all psychosomatic syndromes, and in 39 per cent. of the total. They were particularly high in back, neck and leg complaints.

(ii) Domestic stress and unsatisfactory work were next most important, the former especially so in the depressions.

It may also be of interest to investigate how these several factors were

distributed among officers and other ranks respectively. This has been worked out and is shown in Table VIII.

TABLE VIII.—*The Factors Operative among Officers and Other Ranks.*

Factor.	Officers.	Other ranks.	Percentage officers of total.
Enemy	6	86	9·8%
Domestic	17	126	11·9%
Physical	27	166	14·0%
Employment	39	97	28·7%
Total	89	405	18·0%

The normal ratio of officers to other ranks is approximately 1 : 20, so that the ratio here of roughly 1 : 4½ indicates a high officer casualty rate.

The higher proportion of officers affected by employment is clearly seen.

Next, the environmental factors may be considered *seriatim*.

(a) *Enemy Action.*

This is important as an aetiological factor in base areas in so far as it produces either a predisposition or a progressive condition, later to become fully fledged. Naturally there were many soldiers in any base area who had seen action elsewhere, and this number included men who had been through the campaigns in France (1940), Madagascar, N. Africa and Burma (1942–43).

It was therefore not surprising to find a number of patients in whom battle stress was of importance. The stresses concerned were various; but the majority consisted of some particular episode, such as being cut off on patrol, or seeing a friend blown to pieces at their side. None had been treated at the time. In many, repressed material was present and could be removed.

It would be interesting to estimate how many men had been through battle undamaged, only to be later overwhelmed by another form of stress. No reliable figures are available on this point, but it can be seen that only 92 of the 494 cases were regarded as having been affected adversely by battle (Table VII), which is probably less than the total exposed. If this is so, it is a tribute to the success of "battle inoculation" practised during training. It may, moreover, be noted here that enemy action was responsible relatively less often among officers (Table VIII), and that its effects responded more easily to treatment (below, Table XII) than did domestic and physical stress.

(b) *Domestic Affairs.*

In this survey domestic stresses have been divided into three groups:

(i) Proved infidelity of wife; that is, definite cases, and not those which were merely suspect.

(ii) Separation: This group was restricted to cases whose complaint was simply that of persistent homesickness, without added domestic difficulty.

(iii) Other stress: The remainder included real or imagined illness of relatives, estrangement, financial or business troubles and bereavement.

The severity of these types of domestic stress can be seen from Table XIII. Their detailed effects need further study.

Naturally, some are inevitable, and none are directly under the control of the military authorities. But their effect on the soldier is by no means inevitable or unalterable; indeed in many cases their effect depends less on the nature of the original cause than on the attitude of the soldier's superiors and on the existing regulations. These are, therefore, important both in themselves, and in the impression they produce.

It was unfortunate that many soldiers had the impression that victims of domestic trouble would not receive much consideration. In the peacetime army the part played by the regular officer in looking after this side of his men's welfare was excellent; in war there are obvious difficulties (new officers, and a strain on administration), and there is more stress. But it was not the occasional errors which roused the soldier's resentment, but behaviour which implied a totally unsympathetic attitude.

(i) The subject of infidelity is a very clear example of the difficulties of both sides. It was common enough for most men to be acquainted with an example; there was a most fertile soil for rumour; the presence of foreign troops in England and the length of absence from home exaggerated the tension. Therefore there were many soldiers prepared to expect the worst (more than those who will now admit it), and many ready to believe it on the most inadequate grounds, such as delay in mail. Moreover, they were convinced that if the worst did occur, they would have little chance of a reconciliation by returning home. A victim's first impulse was to get home, but compassionate repatriation was not in his unit's power, but needed application to a tribunal. It was, moreover, subject to so many conditions and to such delay (at any rate till 1945) that it became an added irritation instead of a solace. As a result many developed severe psychiatric disorder, and had to be returned home on this account, but after the loss of much time, of much health and much of their comrades' confidence in the authorities.

On the other hand, the view was held that to introduce compassionate repatriation for infidelity would be to put a premium on immorality; the bad wife would get her husband home, the good would not. In fact, few soldiers (and perhaps fewer wives) had thought of the matter in this way at all; there would be pity, not envy, for a comrade going home to an unfaithful wife. It must also be recorded that it was by no means the irresponsible man whose wife betrayed him; good fighting troops, "the backbone of the nation," were equally affected (this was testified in a report by the C.O. and padres of a division quoted by Mathers (1944), who called attention to the alarming rise, mostly among men over 18 months' service overseas, which was then coupled with an expectation of two or three more years to come).

As to why this period of absence is important, there are obvious reasons: the soldier is bound to be losing touch with the interests of those at home; their worlds have spun apart; and only the best correspondents will have been able to portray their daily existence so vividly that it is still alive 6,000 miles away. This has happened most acutely between husband and wife, where other difficulties also may develop. The loneliness of either may lead them to

seek comradeship which culminates in genuine attachment or sexual promiscuity, with its guilt to follow. Stories current at home of the irresponsibility of their husbands overseas, and in the Army of the immorality of their wives at home, may be often an incentive or an excuse for yielding to any temptation offered—" what is sauce for the gander, is sauce for the goose."

Infidelity has been taken as an example because it presented a clear picture of the conflicting attitudes ; but other domestic stresses, such as bereavement, produced comparable results.

(ii) Homesickness or separation anxiety is a different problem, and in regard to this it is important to consider the emotions of the new arrival. It is singularly unfortunate that he is exposed at once to two further forms of stress. The first is the impression of not being wanted, produced by the interminable delay and boredom of transit camps, the casual remark, " But your trade isn't used here," and the general neglect. It is indeed the stone of neglect rather than the bread of affection given to a very hungry child. The combined effect of these factors is of the utmost importance. All ranks and all services have described it most bitterly, and perhaps the specialist branches most of all. The latter had been compensating for their homesickness by reassuring themselves that they were essential in their new work, and their disappointment was the greater. On a few occasions drafts have been welcomed at the port of arrival, and a full description of the conditions of life, the type of work, and the nature of the country has been given. The warm appreciation received has been witness to the need for increasing the scope of this welcome. The wastage which results from delays in posting and in travelling has only just been realized. Comments from embittered doctors have appeared in the medical journals, and now a report has been published by the Directorate of Research. But the assessment made is only one of hours or man-hours wasted ; it takes no account of the drop in efficiency of the men per hour, nor of subsequent damage to their will to serve.

The second stress which meets the new arrival is another kind of disappointment. He has consoled himself on his voyage out by the hope that there will at any rate be a letter waiting for him at his port of arrival—that is, there will be contact with home. Sometimes there is, but by no means always. No doubt there have been, and will be, very real difficulties of security and transport in the way ; but the price to pay for their existence is high. The soldier is in a most suggestible mood, and the colour of his feelings on landing may determine his whole attitude to the country for ever. This is, of course, even more necessary when the soldier arrives in a spirit of resentment from real or imagined injustice in drafting.

Length of Service.

The effect of length of service, both overseas and total, would be of interest. To obtain any figures of value, however, it would be necessary to know the overall distribution of the various service groups, month by month, throughout the army. This has not been available from any statistical source ; and I can do no more than call attention to a few points. It did not appear from a study of the figures that the *total* length of service had much effect on psychiatric breakdown, but some indication of the importance of overseas service can be given by the following consideration.

A study of 100 sufferers from venereal disease was made in the same area by several colleagues and myself. From this, it was evident that the average time for these men to contract this disease was 19 months after leaving home; that in the great majority the disease was obtained at their first intercourse in the east; and that many admitted they had sought the latter because they were suffering from homesickness or the news of some domestic calamity. The number of the "chronic promiscuous" was relatively small.

(c) *Physical Causes.*

The exact types of physical causes discovered in the 193 cases are shown in Table IX, being plotted against the presenting symptoms.

TABLE IX.—*The Relation of Types of Illness to Symptoms.*

Symptoms.	Total.	Malaria.	Amoebic dysentery.	Other alimentary.	Minor Ops.	Injury or disease of				
						Back and neck.	Legs.	Chest.	Head.	Other.
Head	32	5	2	—	2	—	—	2	6	15
Chest	18	4	3	—	1	—	1	7	—	2
Alimentary	16	—	4	10	1	—	—	—	—	1
Back and neck	18	2	—	—	1	14	—	—	—	1
Legs	11	—	—	—	—	—	11	—	—	—
Genito-urinary	7	3	—	—	2	—	—	—	—	2
Others	15	2	—	—	3	—	—	—	—	10
Anxiety	69	10	8	6	2	—	1	2	6	34
Depression	7	2	2	—	1	—	—	—	—	2
Total	193	28	19	16	13	14	13	11	12	67

There is here a clear relation between the type of physical factor and the psychosomatic symptoms produced. Thus of 16 with alimentary complaints, four had had amoebic dysentery and 10 some milder ailment. Of the 18 chest complaints, 7 had some organic chest lesion as a basis; while the physical factor in the back, neck and leg disabilities was even more marked.

There is still considerable disagreement about the relative importance of physical and psychological factors in many syndromes. It may, therefore, be of some value to study in more detail the ways in which the two were associated here. It was evident that this occurred on particular occasions:

(i) Shortly after disembarkation.
(ii) After evacuation from battle.
(iii) On exaggeration of a minor ailment from fear.
(iv) From resentment at unfairness.
(v) After prolonged or repeated severe illness.
(vi) After over-exertion.
(vii) As an immediate escape from stress.
(viii) On convalescence.

(i) *After disembarkation.*—Minor gastro-intestinal complaints are prevalent on arrival in the east, as are certain failures of physiological adaptation, such as lassitude or headache. It is not difficult to see how functional symptoms can be grafted on to either, for there is generally some degree of homesickness and frustration, and there is dislike or fear of the tropics and their indigenous fauna (reptilian, microbic or human). There are also preconceived ideas, whose inaccuracy is only equalled by their persistence, concerning the risks of cholera or of sunstroke. Thus the sufferer from diarrhoea or lassitude will

become convinced that he is unduly sensitive to the climate, and once his attention is focused on his symptoms they naturally persist. This reinforced his conviction, and his introspection, so that he is wellnigh incurable by either physician or psychiatrist—whose collaboration at an earlier stage might have been successful. Similarly headaches or early fatigue persist, though in a less dramatic way; attempts to evade the issue by allowing the patient to go to a hill station merely give him the chance of developing mountain sickness.

(ii) *After battle.*—There are several occasions when an individual's normal suggestibility is increased. One of these is after passing through severe emotional strain such as battle; a casualty, therefore, evacuated from the front line may be a candidate for a functional exaggeration; and the excellent system of speedy evacuation made this easy for many to develop; in fact, it caught in its net many already on the road to recovery. Unfortunately once they were posted in the evacuation pillar-box in Burma there was often no delivery till they reached a base hospital in India. Naturally doctors at staging posts on the way could not be expected to make a precise evaluation of the functional and organic components in each case, so that hysterical overlays were accepted (by doctor and patient) as organic. Once at the base, symptoms tended to remain as an obvious excuse for the soldier's presence there, and as a basis for a pension claim. Moreover, either wound or illness, but more especially the latter, might reactivate old fears of permanent damage to health.

(iii) *Exaggeration of a minor ailment.*—The individual's suggestibility again is heightened when he is in the presence of a doctor or nurse, whose lightest word is taken as gospel—a point too seldom realized by the modest doctor. "Careless talk" thus produces illness. No doubt patients who imagine some chance phrase to mean the worst are very ignorant, or very stupid; but the doctor is in a position to recognize either, and should behave accordingly.

(iv) *Resentment at unfairness.*—An entirely different type of mistake is made by the doctor who implies, and occasionally states, that the patient with a minor complaint is malingering. Not unnaturally, the latter's symptoms increase; indeed, they could hardly do otherwise, for any improvement would be such a tacit admission of guilt as few would be strong enough to make. On the other hand, simple examination and reassurance could do much. It is the writer's opinion that while frank malingering was very rare, the exaggeration of ailments in this way, part conscious and part unconscious, was always alarmingly large.

(v) *Over-exertion.*—Over-exertion was a common precipitating factor, often in the form of unaccustomed physical strain, in untrained individuals, or groups whose job was suddenly changed. Long hours servicing aircraft in the sun and glare no doubt accounted for the high incidence of headaches and dizziness in the R.A.F. (Table XI). Excessive salt loss in sweating certainly was responsible for much malaise, and some headaches. Increasing salt intake, if early, prevented this becoming established. Psychotic symptoms may also follow extreme physical and mental strain.

(vi) *Prolonged or repeated severe illness.*—Repeated attacks of malaria and dysentery often resulted in a general lowering of resistance, and so to ready breakdown under stress. It is significant that this commonly took the form

of anxiety or depressive states and that the prognosis was poor (Tables IX and XIII).

(vii) *An escape from stress.*—This is the classical hysterical mechanism, and certainly occurs to avoid battle, service overseas, work or responsibility. But it is suggested here that it is less frequent than is commonly supposed; and though gross hysterical reactions of this kind were seen often in Indian and African troops, they were comparatively rare among the British cases of this survey.

(viii) *On convalescence.*—Patients are often sent from medical or surgical wards, or from convalescent depots, with a complaint that previous symptoms have returned or sometimes with a typical anxiety state. These men respond to simple measures of reassurance, or to efforts directed at their morale; but without such simple measures may become intractable.

The explanation of this is probably that soldiers find it hard to resume their responsibilities; their physical powers recover faster than their mental. It was noteworthy that such men were most anxious to rejoin their unit—and it may well be that their most serious loss was that of their group morale.

Turning from the occasion to the type of patient, it may be seen that officers showed less effect from physical factors than other ranks (Table VIII), though there is no reason to suppose they were less exposed than the latter. It is perhaps reasonable to conclude that where there was greater understanding of the nature of the disease, there was less psychological exaggeration.

The importance of the attitude of doctor to patient has been stressed in this study. Taking case histories, I have been struck again and again by the emphasis the patient laid on this. It can be understood that many feel an urgent desire to get their resentment off their chests to some sympathetic listener, and then perhaps to make a fresh start. But instead of an opportunity for so doing, there is too often yet more repression, and impatience, and before long a chronic antagonism to all authority, and particularly to the army, is produced.

This is particularly true of psychotics. It is so consistent that one wonders how many would have been classed as psychotic if their feelings had been allowed free play in a long interview at once. Unfortunately, the people they meet first are generally concerned with bigger problems than the individual and have no inclination to cope with an admittedly difficult case. Impatience produces counter aggression from the patient, and this insubordination is suppressed, often by force. The aggression of hypomanics could mostly be traced to this source, though they were certainly over-active before; nearly all became co-operative and friendly in the face of sympathy. For the same reason, the use of civil mental hospitals, known to be such, is to be deprecated for service men overseas. The mental shock at being " taken for a lunatic " is a severe one, and may deal an incurable wound to the personality. Early kindness and listening will obviate much sedation and shock therapy later.

(d) *Employment.*

It will be recalled from Table VIII that employment was held responsible in a higher proportion of officers than of other ranks. This may be considered with the observation made from Table III that officers provided 27·3 per cent.

of the free anxiety states, 32·4 per cent. of the depressives, but only 7·5 per cent. of the psychosomatic. To throw more light on this, two further subdivisions of the officers have been made: Firstly, all have been grouped by their branches of the service; and secondly, those with bad employment have been divided into (*a*) frustration and (*b*) inadequacy, according as to which of these two sensations was produced. The results are shown in Table X.

TABLE X.—*Officer Casualties: Distribution of Various Factors among Branches of Service.*

Factor.	Infantry.	Artillery.	R.A.C.	R.A.M.C.	R.E.	Other branches.	R.A.F.	Total.
Enemy action	3	—	—	—	1	2	—	6
Domestic stress	1	2	1	2	2	2	7	17
Physical	6	3	1	3	1	2	11	27
Frustration	1	3	1	2	1	2	2	12
Inadequacy	2	3	—	1	3	13	5	27
Total	13	11	3	8	8	21	25	89

In parenthesis it may be observed that if the 18 officers with psychosomatic syndromes were subtracted from this Table they would not alter its overall appearance, for they were evenly distributed.

The greatest problem appears to be that of inadequacy, which was spread over the services rather than over the fighting units; it can also be seen that domestic and physical factors were more prevalent in the R.A.F. than elsewhere.

The losses due to inadequacy in officers were more disastrous than the losses of other ranks. The combatant arms were less affected than the services. One reason for this is no doubt that the choice of new officers is a wider one, and that they tend to attract a more stable individual. Also throw-outs from the arms may gravitate to the services. But these reasons do not by any means explain the whole position.

Examination of the cases concerned in the survey from India shows that there were some officers who could be regarded as constitutionally inadequate; it is safe to say that none of these would have passed one of the modern Selection Boards, but such cases were relatively few. The majority were officers who had been perfectly adequate in some capacity, but were simply not equal to their allotted works. The reasons for this were varied. Some were sent back too soon after illness and were physically not fit to take over their responsibilities. Others seemed to suffer more from a temperamental inability to deal with some particular aspect of their position. This is difficult to define, and may give rise to question; but records showed that they had in fact done reasonably well (sometimes excellently well) elsewhere, and that it was only when they met some especial obstruction that they gave in. The possession of aptitude for various occupations is now generally accepted, and it seems not unreasonable to postulate the existence of an opposite "pet aversion"—though it is realized that this term or this attitude often covers underlying complexes or even character defects to which attention has already been drawn.

Frustration was also marked in officers doing staff work. A separate study has been made of a group of 150 officers with severe psychiatric disorder (who

were in fact mostly members of this same series of out-patients) by three colleagues and myself (Tredgold, Kelly, Heffernan, and Leigh, 1946), and this has discussed the types of syndrome resulting. These were as those described in the literature, namely two main types. The first, the restless and over-anxious, and second the depressed. Of these the first was commoner. This type was also described in the account of manic states, with which there is some similarity.

Where these men could be given different employment they improved—the difficulty was to provide it. In India inter-unit transfers were difficult, so that frustration at the delay often supervened; and the prognosis was bad till local arrangements made with the military secretary's branch prevented evacuation.

The number of inadequate other ranks must seem at first sight a disturbing reflection on the efficiency of the much-heralded selection procedure of the Army. There are, however, some extenuating circumstances. In the first place, some of these men had been enlisted before there was any General Service Corps in Britain; many more had arrived in the East before this procedure was in full operation, and so had not been affected by it. Finally, even if selection can be arranged for overseas drafts, there are obvious difficulties, from the viewpoints both of morale and of administration, which interfere with its smoothness.

The Far East at this time, too, had by no means the highest priority, for material or for men, and there was an acute man-power shortage. All these points must be borne in mind by any critic. Nevertheless, there were in the East very few jobs which could be done by the man thrown out of a combatant unit, so that the disposal of misfits was an even more wasteful process than at home. The Pioneer Corps, as known in Britain, did not exist.

An investigation was also made of the type of work and branch of service of other ranks. These were plotted against the types of presenting symptom for the whole group of psychoneurotics; but no significant finding emerged from this, except that (i) the infantry predominated in other rank army casualties (47·7 per cent.), whereas, it will be remembered, only 20·3 per cent. of army officers came from the infantry, and (ii) the proportions of R.A.F. officers to Army officers was approximately 1 : 2½, but of R.A.F. other ranks to army other ranks was 1 : 10.

The Prognosis Associated with Environmental Factors.

It may also be valuable to look at these cases from another angle, which may contribute to the knowledge of the action and importance of environmental factors.

This is the study of the prognosis.

The various influences that may affect it are:

(i) The environmental factors themselves.
(ii) The symptoms.
(iii) The branch of service and rank.
(iv) The length of service.
(v) Constitutional factors: these have already been discussed above.

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(i) *The Several Environmental Factors.*

The effect of various factors can be seen from Table XI :

TABLE XI.—*Evacuation Rates from Various Factors.*

Factor.	Total cases.	Percentage evacuated.
Enemy action	92	34·8
Domestic stress :		
Infidelity	25	88·0
Separation	72	46·0
Others	46	50·0
Physical	193	36·7
Employment :		
Frustration	36	16·7
Inadequacy	100	33·0
No factor traced	38	42·9
Total	592	39·3
Several present	85	47·0

The total number of factors is, of course, greater than the 494 cases, for in 85 of the latter, two (or more than two) operated. In fact when this occurred the prognosis was worse. Secondly, of the individual factors, that with the worst prognosis was domestic stress ; in particular infidelity of wife was so severe that only three of the latter were not evacuated, and two of those had had an application for compassionate repatriation already under consideration when last seen.

(ii) *The Symptoms Themselves.*

These may be expected to exert some influence on the prognosis, inasmuch as circumstances may hinder the recovery of some more than of others. For instance, orthopaedic symptoms will be open to attack by orthopaedic measures, which are not incompatible with carrying on at duty, whereas gastric symptoms, if they are to be met by a diet, will entail hospitalization or at least light duty for some period, and will interfere so much with the soldier's efficiency that he comes to be regarded as an invalid by his friends, and so all the more by himself. Their effects are shown in Table XII.

There is little difference between psychosomatic syndromes and anxiety in prognostic value. Depression, on the other hand, is far graver. Of the psychosomatic symptoms the orthopaedic symptoms have the best prognosis, effort syndrome the worse, while gastric symptoms are midway.

(iii) *The Branch of the Service and Rank.*

The effects of these are shown in Table XIII.

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TABLE XII.—*The Relation of the Presenting Symptoms to Prognosis.*

Symptom.	Total.	Percentage evacuated.
Head	78	33·3
Chest	35	48·5
Alimentary tract	40	32·5
Back and neck	24	16·7
Genito-urinary	17	41·2
Legs	15	26·6
Others	31	42·0
All psychosomatic	240	34·6
Anxiety	220	35·4
Depression	34	67·8
Total	494	35·2

TABLE XIII.—*Relation of Branch of Service to Prognosis.*

	Total.	Officers.						
		Inf.	R.A.	R.A.C.	R.E.	Others.	R.A.F.	Total.
Number	494	13	11	3	8	29	25	89
Percentage evacuated	35·2	39·2	27·2	33·3	12·5	51·6	52·0	42·7
		Other ranks.						
		Inf.	R.A.	R.A.C.	R.E.	Others.	R.A.F.	Total.
Number		174	78	31	—	82	40	405
Percentage evacuated		40·2	46·0	29·0	—	30·5	15·0	36·0

In the Infantry and Artillery the evacuation rate of officers and other ranks was very similar; but in other arms and services the proportion of officers was higher. The proportion of R.A.F. officers evacuated was nearly three times as great as that of airmen. As has been seen elsewhere (Table X), these R.A.F. officers were largely suffering from domestic and physical stress. The reason for a high rate of evacuation is partly the different policy adopted in this area by the R.A.F., namely that it was better to send a useful officer home to recover completely there than to employ him in India in part-time or unsatisfactory work. The follow-up of these cases is not available, but it is certainly a point of view which avoided deterioration overseas. There was no adverse effect on the morale of the remainder to be observed.

(iv) *The Length of Service.*

On compiling the Appendix, it did not seem as if the total length of service had any particular significance. That of overseas service, however, is of interest. The figures shown have been collected in Table XIV.

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APPENDIX.—*Analysis of*

Symptoms.	Result.	Constitutional factors. Previous personality.				Environmental factors. Domestic.				Physical.			
		Dull.	Neurotic.	Normal.	Excellent.	Enemy action.	Infidelity.	Separation.	Other.	Mal.	Amoeb. dys.	Others.	Operations.
Headaches	R.T.U.	4	10	33	5	12	—	7	1	1	1	—	1
	Evac.	9	3	12	2	1	3	3	2	4	1	—	1
Chest	R.T.U.	1	5	12	—	4	—	3	—	1	—	—	1
	Evac.	4	4	6	3	4	1	2	2	3	3	—	—
Alimentary tract	R.T.U.	3	7	14	3	3	—	7	1	—	2	9	1
	Evac.	5	4	3	1	4	—	3	—	—	2	1	1
Back and neck	R.T.U.	1	4	14	1	1	—	2	—	1	—	—	1
	Evac.	—	—	3	1	—	—	—	—	1	—	—	—
Legs	R.T.U.	1	2	8	—	—	—	—	1	—	—	—	—
	Evac.	1	—	3	—	11	—	—	—	—	—	—	—
Genito-urinary	R.T.U.	1	5	3	1	2	—	2	—	1	—	—	1
	Evac.	4	1	2	—	1	—	1	—	2	—	—	1
Others	R.T.U.	1	6	7	4	1	—	3	—	—	—	—	3
	Evac.	5	3	5	—	2	—	3	1	2	—	—	—
Anxiety	R.T.U.	13	45	65	19	35	3	13	14	5	4	4	2
	Evac.	9	8	53	8	14	9	18	14	5	4	2	—
Depression	R.T.U.	2	1	6	—	2	—	2	5	1	1	—	—
	Evac.	2	3	16	2	4	8	3	5	1	1	—	1
Total	R.T.U.	27	85	164	33	60	3	39	22	10	8	13	9
	Evac.	39	26	103	17	32	22	33	24	18	11	3	4
Grand total		66	111	267	50	92	25	72	46	28	19	16	13

TABLE XIV.—*Evacuation Rate Related to Length of Service Overseas.*

	Half-years. First.	Second.	Third.	Fourth.
All psychoneurotics	57	70	65	62
Percentage evacuated.	26·3	37·0	36·8	42·6
All from domestic stress	15	18	10	17
Percentage evacuated.	40·0	38·7	50·0	58·7

The rise in the rate as service increases is clear.

(e) *War Aims and Faith.*

These factors were not easy to assess numerically, and their effect in any given case was hard to determine with precision. There can, however, be little doubt as to their importance, and this can best be described by outlining some circumstances.

(i) *Distance from the enemy.*—There is general agreement among officers that the further troops are away from the enemy the lower is their morale; although probably *apparent* distance is more important than *real*. The "stimulus of battle," in Mr. Churchill's phrase, is absent, and the demoralizing effect of feeling "out of the war" has been remarked. War aims are less easy to visualize. On the other hand, speeches and visits from war leaders, which stressed the value of every man everywhere, raised morale again.

(ii) *Loss of focus.*—Many soldiers' war aims needed a rather more concrete form than "patriotism" or "democracy," and no doubt a large number visualized themselves as fighting for their home, wife, family—generally

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Factors and Symptoms.

Environmental factors.										Branch of service and rank.							
Physical.					Employment.				Other ranks.					Officers.		
Legs.	Back and neck.	Chest.	Head.	Others.	Frustration.	Inadequacy.	Nil.	Several.	Infantry.	Artillery.	R.A.C.	Others.	R.A.F.	Army.	R.A.F.	Total.
—	—	1	5	11	6	9	2	5	18	8	4	11	9	—	2	52
—	—	1	1	4	2	6	1	4	10	2	3	5	3	1	2	26
1	—	4	—	1	1	1	3	2	7	5	—	4	2	—	—	18
—	—	3	—	1	1	3	—	4	6	5	—	4	1	1	—	17
—	—	—	—	1	1	5	1	4	12	5	3	5	—	2	—	27
—	—	—	—	—	1	3	2	3	6	2	—	3	1	1	—	13
—	12	—	—	1	1	3	—	2	7	3	1	2	4	3	—	20
—	2	—	—	—	—	—	—	—	2	1	1	—	—	—	—	4
9	—	—	—	—	1	1	—	—	6	2	—	2	—	1	—	11
2	—	—	—	—	—	1	—	1	—	3	—	—	1	—	—	4
—	—	—	—	1	—	2	3	1	4	1	—	1	2	2	—	10
—	—	—	—	2	—	2	1	3	5	1	—	—	1	—	—	7
—	—	—	—	8	1	5	—	2	9	1	—	4	1	2	1	18
—	—	—	—	2	1	1	4	2	5	5	—	1	2	—	—	13
1	—	1	4	21	18	39	7	24	44	15	14	27	8	25	9	142
—	—	1	2	13	—	12	4	17	19	14	4	12	3	16	10	78
—	—	—	—	1	1	2	—	4	3	3	—	1	—	4	—	11
—	—	—	—	1	1	5	—	6	11	2	1	—	2	6	1	23
11	12	6	19	44	30	67	16	45	110	43	22	57	26	39	12	309
2	2	5	3	23	6	33	12	40	64	35	9	25	14	25	13	185
13	14	11	12	67	36	100	28	85	174	78	31	82	40	54	25	494

idealized—rather than for England. Consequently the news or even suspicion of damage to wife, or family, or a loss of their ideas left these soldiers with little to fight for. No doubt this was one reason why domestic stress was more common among other ranks relatively than officers, and why its effects were so serious, and again why prognosis in dullards was worse.

(iii) *The soldier's sense of his own value.*—Both these instances are examples of the effect of weakening the soldier's ultimate war aims. His morale may be attacked in another way by factors which lower his confidence in himself, or his sense of his own value. Frustration produced by unsatisfactory employment has been already discussed. Lack of information about his own role and how it fitted into the war effort was equally disastrous.

His sense of craftsmanship, too, was a faculty often neglected.

(f) *Group Relations.*

The soldier's sense of comradeship is too well known to need description, but is sometimes also too well known to consider. Many patients were seen in whom it was entirely absent. The old system of the county regiments grouped together men of similar nature and like interests. Unfortunately the system often broke down under the need for reinforcements, and it was difficult to ensure that convalescents always returned to their old units.

Confidence in leadership is naturally of the utmost importance. It is connected with the soldier's sense of security, and is, therefore, especially in demand when the latter is damaged by, for example, bad news from home. Certain soldiers' criticisms of leaders have been quoted in this text and case material, and it may be objected that these emotional attitudes are based on

false impressions ; that is, that the soldier has misunderstood the motives of his officers. This may well be so, but (at the risk of being obvious) it must be pointed out that what matters is not whether an impression is true or false, but whether it exists. On it depends the soldier's mental health.

It has also been objected that reactions such as have been described are uncommon, and only occur in already demoralized soldiers. To investigate this, an opinion survey of 895 soldiers in transit in Burma was taken by Browne, Coates and Wells (1946) at my direction. Their findings included the following :

"1. The soldier feels a considerable amount of dissatisfaction with the amount of information he has been given on the conditions he will encounter when he comes abroad.

"2. There is evidence of mental unrest concerning the possible ill-effects on health in years to come of service in this theatre.

"3. There is evidently extreme discontent at what is felt to be excessive disparity in the privileges enjoyed by the higher ranks in contrast to those of the lower. To make matters worse, officers frequently make no effort to conceal the fact that they possess privileges . . . and indeed flaunt them in the other ranks' faces." (This it was emphasized was in a base area several months after the war, not in combat conditions.)

"4. There is lack of sufficient explanation of the various aspects of military discipline and organization."

It will be seen how these various conditions, which affect the soldier's war aims and his relations with his group, illustrate the importance of the criteria laid down by McDougall and Freud as necessary for successful group behaviour.

Summary of Findings.

The salient findings may be summarized as follows :

A. *Incidence.*

(1) The incidence per 1,000 healthy troops in the Far East was rather greater than that in the west, and there were records of several sharp increases.

(2) The ratio of psychosis to all psychiatric casualties was higher in the east than in England. This increase was composed mainly of "schizophrenic" conditions, both in the Middle and Far East, but at the end of the Japanese war a series of manic states occurred and so produced a further rise locally. At this period the incidence of psychoneurosis was abnormally low.

B. *Symptomatology.*

(1) The symptomatology of psychoneuroses showed little variation from those in the west.

(2) The series of manic states just mentioned presented unusual features, and generally a good prognosis.

C. (i) *Constitutional Factors.*

(1) The findings of psychoneurotic traits gave little reliable prediction of breakdown ; but dullness increased the liability.

(2) Certain previously well-adapted men broke down under severe stress and some developed psychoses.

(3) Officers were relatively more prone to anxiety, depression and manic states than other ranks—particularly staff officers of an over-conscientious type.

c. (ii) *Environmental Factors.*

(1) Physical factors were more commonly present than others (and were found in 50 per cent. of psychosomatic states). Domestic stress and unsatisfactory employment were roughly equal in numerical importance.

(2) Domestic stress (especially infidelity) generally resulted in anxiety and depressive states. The severity of its results increased with length of service overseas.

(3) Frequently several factors were associated; in particular physical factors were often found to have produced psychological breakdown in soldiers who were also under emotional strain.

(4) These emotional strains were of various kinds:

(*a*) Anxiety from separation from home, or over home affairs.
(*b*) Fear of serious disability.
(*c*) Anxiety over inadequacy at work.
(*d*) Fear of danger.
(*e*) Resentment at unfair treatment.
(*f*) Frustration.

(5) A heightened suggestibility also occurred after emotional stress was over, or when a patient was in a doctor's presence. A general lowering of resistance often resulted from debilitating physical disease.

(6) The actual emotion experienced by any individual under stress depended not only on the type of stress, but on his personality structure, itself largely dependent on his past history. Thus certain men had a disproportionate response to certain stresses only. Others—less common—had a low resistance to all stress.

(7) The type of symptoms produced depended generally on the type of physical factor operating.

(8) Bad employment was more likely to affect officers than other ranks. The officers concerned were largely from the services—as opposed to the arms—or from staff appointments. Unsatisfactory employment was the commonest group of causes among officers.

(9) The syndromes these officers developed were of two main groups:

(*a*) Depression and apathy.
(*b*) Restlessness and tension, not clinically very remote from hypomanic excitement; borderline cases were recorded.

(10) Lack of war aims and of confidence in leaders contributed to psychological illness.

Review of Literature.

A survey of the literature dealing with the mental health of soldiers in the Far East necessarily includes work done in other theatres, for the sake of comparison. It is best reviewed under several heads:

A. Surveys of the incidence of psychiatric cases.
B. Surveys of the symptomatology.
C. Surveys of the factors which affect mental health.

These have been grouped under the terms "environmental" and "constitutional."

A. *Incidence of Psychiatric Cases.*

There are three ways in which a numerical survey of psychiatric cases may be of interest. These are: (i) The incidence rate per cent. or per thousand of the total strength (i.e. of all troops, healthy and sick), (ii) the ratio of mental abnormalities to the total medical casualties, and (iii) the distribution of different syndromes within the total of mental abnormalities.

It is probable that these three figures will give more information if considered together rather than if separately.

(i) *Incidence per Strength.*

The incidence of psychiatric cases per strength (of 1,000 say) is not always easy to estimate, for the total number of troops in any area and any period is subject to much fluctuation as well as to stringent secrecy (at the time). Broad figures have, however, been published both for admissions to hospital and for out-patients.

Admissions to hospital.—In 1944 and 1945, in the United Kingdom, sample months showed a variation between 0·40 and 0·5 psychiatric admissions to hospital per 1,000 strength per month. In the Middle East over this period the admissions ranged from 0·8 to 0·9, i.e. practically double the rate in the United Kingdom (*Bulletin of Army Health*, 1945).

Out-patients.—Out-patient figures for the same period were naturally higher; in the United Kingdom they ranged from 1·3 to 2·2 per thousand per month, and in the Middle East Force from 1·3 to 2·0 (*Bulletin of Army Health*, 1945).

Civil life.—It is not irrelevant to compare these with rates in civil life. Blacker (1946), in a valuable survey, showed these were lower throughout the country than the service rates. He considered, however, that the rate of attendance increased where there was awareness among the population (that is, both patients and doctors) of a psychiatrist's presence and functions. While we may assume that this is in part the reason for the greater rate in the army, where awareness of the psychiatrist extends even further (beyond the patient and his doctor to his Commanding Officer), there can be no doubt that the chief cause of the increase is to the greater stress which is entailed in adaptation to military life.

It is less easy to see why the admission rate in the East should be greater than at home, whereas the out-patient rates in the two are practically the same. The significance of this is presumably that while psychiatric disease is not numerically greater in the East, it is more severe. A study of the distribution rates may show why this is so.

(ii) *Ratio to all Disabilities.*

In December, 1914, " nervous and mental shock " accounted for 7–10 per cent. of *all* officer casualties, and 3–4 per cent. of all other ranks, but for the whole war the rate was probably much higher, and it is known that at times 40 per cent. of cases evacuated were due to neurosis (*History of the Great War*, 1931).

In the 1939–45 war psychiatric disorders were responsible for 10 per cent. of all British troops evacuated from the European theatres.* They have also been responsible for between 34 and 40 per cent. of all discharges on medical grounds from the British Army—the six-monthly periods from 1 January, 1943 to 31 December, 1945, show 34·0, 35·7, 40·4, 40·5, 38·4 and 38·6 per cent. in chronological order (*Bulletin of Army Health*, 1946).

A further report of some significance is that of Squires (1933) that of 353 men invalided from the colonial service 45 per cent. were psychiatric cases (28 per cent. being psychoneurotics). Squires also pointed out that these cases were predominantly men in their first four years of service, whereas in England psychiatric disabilities had been spread evenly over 25 years' service.

In any consideration of these figures, however, it must be noted that the proportion of psychiatric cases to the total number of medical cases does not necessarily indicate the rise or fall of the former, since the latter is by no means constant, and may suddenly change on a large scale—e.g. from an increase of wounded after battle or a decrease of malaria from the introduction of mepacrine. It is, therefore,

* This figure is based only on a two months' sample for authority for total figures is not yet obtainable.

not possible to conclude more from these figures than that psychiatric disorder is an important cause of wastage of man-power in both wars. Its effects on the health of society in peace, and on the cost of pensions, seem likely to be equally serious.

(iii) *The Distribution of Various Types of Mental Abnormality.*

A study of historical accounts inevitably leads to the conclusion that the criteria for diagnosis have not been constant. The contradictory views of medical authorities were well shown by the *W.O. Enquiry on Shell Shock* (1922). While some contradictions still exist—particularly in regard to conditions with a physical component—nevertheless, on the whole, in World War II more definite standards of diagnosis were used for Imperial troops, and reports from different theatres may thus be compared. No doubt even here there will be inaccuracies, but since they will be roughly of the same order, the comparison may still be valid.

In considering reports of the distribution of the various types of condition, i.e. psychosis, psychoneurosis, and mental deficiency, it should be borne in mind that the last term is used in the army nomenclature in a broader sense than in civil life; in the army it includes dullards as well as defectives who are certifiable under the Mental Deficiency Acts of 1913 and 1927.

The relative proportions of various broad groups of disorder have been given by several authorities. James (1945) quotes the official statistics of the war, which show that the percentages among out-patient British troops in the Middle East Force were as follows:

	Psychoneurosis and psych. pers.	Mental deficiency.	Psychosis.	Others.	Total.
October–December, 1943	74·1	4·9	7·4	13·5	100
January–June, 1944	77·2	6·0	4·9	11·9	100
July–December, 1944	74·0	5·7	5·5	14·9	100
January–March, 1945	73·3	4·3	6·3	16·1	100

From official figures out-patients in the United Kingdom over nearly the same period were:

	Psychoneurosis and psych. pers.	Mental deficiency.	Psychosis.	Others.	Total.
January–June, 1943	57·0	29·0	2·9	11·1	100
July–December, 1943	60·4	25·6	2·6	11·4	100
January–June, 1944	70·9	16·7	2·4	10·0	100
July–December, 1944	78·5	10·9	2·2	8·4	100

(*Bulletin of Army Health*, 1945.)

Rather different proportions are given by Ballard and Miller (1944) in a study of 2,000 consecutive R.A.F. out-patients in England. Of these 1,366 were psychoneurotic, 62 mentally deficient, 45 psychotic, 2 malingerers, 30 n.a.d., and 495 organic, medical and neurological cases. The total psychiatric cases would then be 1,473, and the percentages of this total would be psychoneurotic 92·7, mental defectives 4·2 and psychotics 3·1.

Psychotics do not always pass through out-patient departments, for they may be admitted direct to hospital. A study of their rate in hospital admissions will, therefore, provide evidence of the proportion of psychosis to the total *severe* psychiatric disorder; and so enable the importance of psychosis to be seen from another angle.

The figures for the percentage of psychosis to all psychiatric admissions (British troops only) are available from official sources (*Bulletin of Army Health*, 1945). In the Middle East they were as follows:

October–December, 1943	19·0%
January–June, 1944	31·3%
July–December, 1944	23·0%
January–March, 1945	28·1%

In the United Kingdom, figures are given for roughly the same periods. Besides giving the rate for all ranks they also give the rate for officers (that is, psychotic officers to total psychiatric officers) and other ranks (similarly).

These are as follows :

	All ranks.	Officers.	Other ranks.
April, 1942–March, 1943 . .	25·3% .	30·1% .	25·0%
April, 1943–March, 1944 . .	26·5% .	45·8% .	25·4%
April, 1944–December, 1944 .	16·3% .	19·5% .	16·2%
July and August, 1945 . .	20·3% .	21·0% .	20·2%

In the Far East the problem is no new one ; as Miller, Wilson and Wittkower (1949) point out, the Duke of Wellington complained of the mental changes of his officers while serving in India. Nevertheless, no gross figures to compare with the above are available. There are, however, separate reports from corps or divisions in Burma by Miller (1945), Hurley (1945), Matas (1945) and Davis (1946). These are most easily expressed as the rate of psychosis in total psychiatric casualties, and have been summarized as a table for the sake of convenience.

Unit (and authority).	Date.	Total psychiatric casualties in British troops.	Percentage of these psychotic.
Miller (1945) . .	1944–45, March–March .	248 .	5·23
Davis (1946) . .	1944–45, March–March .	? .	3·0
Hurley (1945) . .	October, 1943–July 1944 .	565 .	5·30
Matas (1945) . .	September, 1943–February, 1944 .	354 .	6·5

If these figures are considered as a whole, it is reasonable to conclude that the admission rate (per total strength) is greater in the East, because there is a higher proportion of psychosis there. There is also a lower proportion of defect. It is possible that the decrease in defect may be regarded as a tribute to the process of selection of drafts awaiting service overseas. It is also possible that fewer men are classed as defectives because defectives developed psychosis or psychoneurosis, and so were classified under the latter and not under defect. However this may be, there seems an absolute increase in psychosis. No explanation is given for this by those who compiled these figures ; nor is there any explanation for the high proportion of officers among them.

B. *Surveys of Symptomatology.*

These are best described under—

(i) Psychoneuroses.

(ii) General.

Psychoses have been described fully elsewhere (Tredgold, 1947).

(i) *Psychoneuroses.*

Although it was at one time fashionable to speak of " war neurosis," it is now generally accepted that " there is nothing specific about the mental breakdowns that occur in war " (Curran and Guttman, 1945).

But the relative incidence of the various syndromes in war differs from that in peace, as was clear from the W.O. Enquiry (1922). Moreover, it was reported there by Head that the types varied with rank, for the vast majority of anxiety states were in officers, while conversion hysteria was practically confined to other ranks.

The proportion, moreover, of officers to other ranks among psychiatric cases was about 1 : 14, whereas the normal proportion in combatant units is about 1 : 30.

In this war the consensus of opinion has been that anxiety has become relatively much commoner among British troops, and hysteria correspondingly less so (Ballard and Miller (1944), Craigie (1944), Grinker and Spiegel (1944)). On the other hand, there has been an increase of psychosomatic symptoms noted by Dunn (1943), who makes the significant remark, " With the remarkable decline of the neurotic manifestations in the last war, i.e. anxiety states and conversion hysterias, the emotional tensions generated in this war are appearing as psychosomatic disorders."

Also Curran (1945) quotes a report from German sources that anxiety states were not common in the German Army; even in the retreat from Russia (ideal in some ways in producing mental stress) little anxiety was seen, but inquiry elicited the prevalence of psychosomatic disorders which had apparently replaced it—possibly an example of how the type of symptom was determined by the doctors' expectation and attitude.

The classification and terminology of these various types of psychoneuroses has become a little confusing, and Ewalt (1944) attempted to clarify it. He described two groups of conditions which were both reactions to emotional and/or environmental stress, and which both showed physiological (but not structural) alterations. Unfortunately he termed these two groups (*a*) simple anxiety and (*b*) psychoneurosis, according as to whether somatic symptoms were absent or present. Finally he placed in a separate group (*c*) cases which showed alterations of structure as well as of function, and due also to an emotional reaction.

Ewalt's choice of the term psychoneurosis is not very helpful; for this term is generally used for a larger group than the one he so designates; but (apart from this) his concept of a separate group of this kind does help to clarify the position.

c. *Survey of Factors.*

This may be subdivided into two groups:

(i) Constitutional.
(ii) Environmental.

(i) *Constitutional Factors.*

These are best regarded from the points of view of (A) the psychoneuroses and (B) the psychoses. Separately, under another paragraph (C), is a short discussion of the positive aspects of the personality.

(A) *Psychoneuroses.*—A discussion of the constitutional factors involved at once raises an ancient controversy. As Dunn (1941) pointed out after reviewing the literature, there are two major schools of thought; one is a tendency to consider all neurotic reactions as predominantly constitutionally determined, with an inherent predisposition; the other accepts the importance of inherited predisposition in some cases, but would stress that soldiers of previously sound personality may break if the strain is severe enough or too prolonged. The strain may be mental or physical, or both. Personality is, in the phrase of Menninger (1937) "the individual as a whole . . . all that anyone is, and all that he is trying to become."

The difference of thought is not merely in the ranks of the medical profession. It exists equally sharply in the Army. The first opinion was accepted at the beginning of the war by a number of senior officers, who were convinced that if a man broke down this proved that he had in fact "always been yellow," however good his previous record had been. This argument rendered terminology meaningless; the best military test of the soldier's personality before was surely how he had in fact reacted; and if he had done so satisfactorily, later efforts to regard him as "always unstable" are beside the point.

The second school's opinion is that some (not all) cases of psychoneurosis occur without inherent predisposition. This school has received increasing support from the studies of battle casualties made at the time of Dunkirk (Sargant and Slater, 1940) till reviews of several years of war now available (e.g. Strecker and Appel, 1945).

Since both schools agree that there are predisposed individuals, there has naturally been much consideration as to how these can be detected. It has mostly been along three lines of study: those of (i) psychoneurotic traits, (ii) heredity, and (iii) personality types.

(i) *Psychoneurotic traits.*—There has been much argument on the importance of so-called psychoneurotic traits. Among the latter are classed enuresis, nail-biting and stammering—to mention a few.

Some of them are no doubt often associated with unstable individuals; but they are also known to occur in the healthy and in the brilliant. To meet this difficulty, Porter (1943) suggested that they might have a cumulative importance; he thought that the possessor of six of the above traits was a candidate for breakdown, while the presence of four only might be disregarded. But he described a

control group of apparently normal men, who showed nearly as many pathognomonic signs as an equal number of breakdowns, which scarcely supports his theory. Similarly Sheps (1941) described a series of " successful soldiers " ; 58 of these had been stable in battle, but 34 of the 58 showed some abnormal traits.

Hastings, Wright and Glueck (1944) have demonstrated in their review of the Eighth U.S. Air Force (first year) that 50 per cent. of 150 men who successfully completed tours of combat had a previous record of emotionally unstable behaviour, and often some family instability. But Anderson (1946) shrewdly comments that this only shows (*a*) that combat is not all-important, and (*b*) that their service did not expose them to specific situations to which they had been previously sensitized. Anderson's view is that patients respond in the light of past experiences and psychological wounds remaining in their personality structure.

(ii) *The influence of heredity.*—This was investigated by the Medical Department of the U.S. Army (1929), but there was scarcely any significant difference between psychiatric cases and normal soldiers.

(iii) *The question of personality types.*—This was discussed by many witnesses, medical and combatant, before the War Office Enquiry into Shellshock (1922), and although there was a general opinion that the majority of cases (though never all) could be predicted, there was little agreement on the type of personality most likely to suffer. (On the other hand, the value of " man-management " in preventing " shell shock " was accepted by all.)

Various authors have delineated certain types of personality which they consider particularly likely to develop psychoneurosis.

It is obviously difficult to fit all cases into any scheme of classification, but attempts have been made by several writers. Stungo (1946) described four groups: (i) steady, sober and rigid ; (ii) responsible, over-conscientious ; (iii) dependent and immature ; and (iv) constitutionally inferior. Halliday (1943) made also four groups and specified their probable symptoms under stress : (i) histrionic—autonomic ; (ii) hypersensitive—asthenic ; (iii) self-assertive—ulcer ; and (iv) self-instructing—rheumatic. But he points out that the assessment of types is still very inadequate. In fact, it seems doubtful if a useful purpose can be served by attempts to force all cases into one or other group ; the latter of necessity become so broad as to be of little value.

Nevertheless there are certain types which are recognized by many writers to be of particular significance : (*a*) The over-conscientious obsessional active type was found by Wishart (1937) to be the commonest in effort syndrome. Wittkower, Rodger and Wilson (1941) agreed that it accounted for 40 per cent. of cases they saw, and considered overwork or fear (generally a fear of being afraid in battle) the usual precipitating factors. Crile (1940) said that the majority of patients with effort syndrome (as well as peptic ulcer, and hyperthyroidism) were of the active and energetic type called " energetic, obsessional, irritable," found by Gainsborough and Slater (1946) in a disproportionate number of proved cases of peptic ulcers ; these authors concluded there was an over-activity of the vegetative nervous system.

The over-conscientious obsessionals have been found by Culpin (1931) to develop frustration unduly easily. A sense of urgency produces overwork and no rest is allowed. This may result in depressive features (Gillespie, 1942). Culpin quotes an obsessional who developed typical manic-depressive cycles.

Explanations of this have been given in psychopathological terms. Wittkower and Spillane (1940) suggest the basic personality structure may be weak because it is characterized by self-centredness, lack of sociability and lack of affection ; the danger of death is to the patient a threat to his self-love, and his response is to regress to a narcissistic level ; his ego-libido becomes inflated, and the abnormal sensations resulting produce hypochondriasis. In the view of Freud (later quoted in detail) individuals exposed to frustration are likely to break down if they are of certain types ; of which the rigid individuals, and those whose libido never frees itself from infantile fixation, perhaps may be taken to correspond respectively to this over-conscientious type and to the dependent type now to be described.

(*b*) The dependent type is considered by Fairbairn (1943) to be the most important. He states that it formed the bulk of cases in an E.M.S. hospital, and suggests the whole problem of a predisposed personality is merely one of emotional dependency. It is probable that this view, based on the more chronic cases, is too sweeping.

Alexander (1934) considers that dependence is always to be found in gastric neuroses; but admits that in some it takes the form of an over-compensation, which presents the picture of ambitious efficiency. Dunn (1942*b*) has observed the dependent and the responsible types associated with gastric symptoms.

(*c*) The histrionic type—one of Halliday's groups—is considered by Ellman, Savage, Wittkower and Rodger (1942) to develop rheumatic pains.

Mention must also be made of the dullard. The liability to psychoneurosis has been widely recognized in the Army, e.g. Hargreaves (1940). Brooks (1929) commented on the number of ineffectual manual labourers among his cases of effort syndrome.

(B) *Psychoses.*—This has been discussed elsewhere (Tredgold, 1947).

(C) *Positive Aspects.*

In all these writings surprisingly little attention has been paid to the more positive facts of character. Nevertheless, it is apparent that the prediction of psychological breakdown can be regarded as analogous to that of cardiac breakdown, and can be made in the same way, by assessing the functional capacity and comparing it to the coming stress. The capacity can be gauged from symptoms and signs, in psychic or cardiac trouble alike. In fact, many military psychiatrists have admitted that their assessment is much helped by the reports obtained from the unit officers about the patient's behaviour and efficiency. These officers were excellent diagnosticians, or rather prognosticians, and sometimes took great care to keep a particular soldier out of battle because he was "obviously no good," not because of specific traits—they had in fact little idea whether he bit his nails or not.

Thus in practice a more positive approach is being made. But more definition is still needed, and more information about the assets of a man's character and their significance. In this respect the records of officer selection boards may later provide valuable material. An assessment of "officer quality" is not made solely from the angle of defects, or there would be grave errors and probably the loss of brilliant men. The candidate is, instead, regarded from the aspect of the balance between his good and bad qualities—which is a point forgotten by some who ask (in all innocence?) whether Nelson or Napoleon would have passed a modern selection board.

As described above, more emphasis is now being put on personality types than on psychoneurotic traits. Moreover, the former concept indicates certain possible lines for preventive psychiatry. Consideration of this will include the positive factors as well as the weaknesses. Thus the over-conscientious type is obviously not one to be exposed to situations where frustration is likely; he must, moreover, be helped to find a substitute goal, and particularly must he avoid the ways of regression to infancy and of fantasy. That is, he must have as much interest as possible, and he must not be kept idle in a hospital where the restrictions remind him of his childhood. The positive aspects of his personality must be encouraged.

(ii) *The Environmental Factors.*

These are best discussed under various headings as follows:

1. Enemy action.
2. Domestic affairs.
3. Physical health.
4. Employment.
5. War aims and faith.
6. Group relations.

It is clear from the literature that it is often difficult to decide what particular factor is responsible for mental ill-health; or if several factors are evident, to decide on the most important. Some writers group them by their time of action as predisposing and precipitating; but naturally any factor may predispose in one case and precipitate in another, without changing its nature. It seems best, therefore, to consider the nature of the various factors under the six groups given above; bearing in mind that in each type there will be favourable as well as unfavourable circumstances.

1. *Enemy Action.*

The immediate effects of enemy action on the mind of the soldier have been described and analysed by many writers, in the war of 1914–18 (of which the *War Office Enquiry into Shellshock* (1922) gives a summary), and in that of 1939–45. The twin pictures of anxiety and hysteria in the front line have been drawn and redrawn again and again. The precise importance of battle stress is not always easy to measure, and there is some divergence of views on the subject. James (1945) estimated that only 35 per cent. of the 4,000 cases he investigated from the Middle East were due to battle. Ballard and Miller (1944) said that only 15 per cent. of the 2,000 R.A.F. cases they saw were even from operational stations. Mullinder (1945) thought that out of 138 psychotics from Normandy, 127 were due to battle. Tooth (1944), writing of sailors, attributed 193 of 398 cases to enemy action. The position naturally varies with many circumstances.

Besides the *immediate* effects of battle, these authors have also described the *remote* effects. The latter have undoubtedly contributed to many breakdowns in base areas; for patients who have been through various campaigns without symptoms or without treatment, and who have later broken under a different type of stress, show a clinical picture obviously derived from the original battle stress.

2. *Domestic Affairs.*

In 1914–18 domestic stress was given far less attention by most British observers than the stress of battle. In 1939–45, however, it came into greater prominence, especially in regard to troops in the east. There were, of course, more soldiers serving in the East than in World War I, and many had over four years' absence from home; even more had for a time the expectation of such absence.

There are two types of stress which may be described, (*a*) homesickness—also known as separation anxiety or nostalgia—and (*b*) domestic calamity. The former is presumably present in some degree in nearly all men parted from home. The latter is actually only experienced by a few unfortunate individuals; but the fear or threat of it may be operative in a much larger number; it may be in the shape of bereavement, illness, financial loss, or estrangement from wife or family.

(*a*) *Homesickness.*—The state of mind of the homesick soldier in the Middle East is very clearly described by Main (1943). Comparable pictures are drawn by Greiber (1945) for American troops, and by Burdon (1944) for British sailors.

The effect of homesickness may be expected to vary at different periods of separation. Main's view was that it began after six months, and steadily increased thereafter; Burdon went so far as to say that two years' service away from home was likely to produce a marked effect in most normal people. Greiber differentiated two periods of maximum effect in American troops, the first between two and four months overseas—which affected the more dependent individuals—and the second between 14 and 24 months. Homesickness may be increased if there is any failure of war aims (Greiber, 1945), or in enforced idleness. The association of homesickness with gastric symptoms was noted by Mitchell and Mullin (1944), who estimated an unusual degree of homesickness in 45 of 50 cases of gastric neuroses. This was not so in 50 control cases of other psychoneuroses.

(*b*) *Domestic calamity.*—The effects of this were also described by the same authors, who regarded it as an important problem. On the other hand, Stephenson (1944) considered that the domestic problems of the sailor in the Far East were less than those of the soldier, and attributed this to his shorter expectation of service away from home (seldom over 27 months). But Tooth (1944) examined 398 cases of psychiatric disorder in two naval hospitals, and found domestic stress present in 90. He considered real or suspected infidelity as the commonest single cause. The invaliding rate of such cases is given by Tooth as 35·6 per cent (to be compared with 29·0 per cent. from battle stress and 22·6 per cent. from "service conditions").

These writings show clearly that the problems of simple homesickness and of domestic calamity in the East both deserve considerable study.

3. *Physical Health.*

The influence of health of the body on that of the mind is a vexed question, and one moreover on which the consensus of opinion has recently changed and is

perhaps changing still. It is easier to discuss the psychoneuroses and psychoses separately.

(*a*) *The Relation to Psychoneuroses.*

It is not long since many syndromes now considered psychosomatic were regarded as organic ; of these the most instructive is the first :

(i) *Effort syndrome.*—Although this was described by Da Costa in 1871, it was still widely thought of as due to a cardiac lesion until Sir T. Lewis (1918) pointed out that the majority of cases (83·2 per cent.) had no organic lesion, in spite of the fact that 23 per cent. of cases had a past history of rheumatic fever or chorea. He also remarked that heart cases were at that time the second most numerous medical disability.

Since then discussion has largely centred on the question of how much importance is to be given to physical factors and how much to psychological. Most physicians agree that in some cases the first is the cause, in others the second. Thus Hurst (1944) described physical causes, but reminds us that " soldier's heart is often nothing more than a manifestation of an anxiety neurosis." Frazer (1940) advised collaboration between cardiologist and psychiatrist ; Grant (1940) listed as his causes constitutional weakness, exhaustion, delayed convalescence and external infection ; while Parkinson (1941) divided his causes into constitutional, psychoneurotic, infective and myocardial degeneration.

Psychiatrists naturally tend to stress the psychological factor (e.g. Ross, 1940, and Wittkower, Rodger and Wilson, 1941). Moreover, Maxwell Jones and A. Lewis (1941) analysed 100 cases, and while they considered 11 per cent to be partly infective and 11 per cent. due to organic heart disease, they drew attention to the subjective phenomena, and noted that fear was frequently the emotion concerned.

(ii) *The gastro-intestinal symptom-complex has usurped pride of place* in the 1939–45 war, and has been considered to be the most prevalent single type of disease among British soldiers. The increase was thought by Tidy (1941) to have occurred in civil life before the war ; and its appearances later would then be due to the fact that many cases latent in civil life were revealed on enlistment or precipitated by army diet.

Here, again, there is much disagreement as to how often an organic basis is found, and figures range from 89 per cent. (Payne and Newman, 1940) to 32 per cent. (Spillane, 1941). Tidy's view (1941) was midway between the two—65 per cent.—and is based on 2,500 admissions to hospitals, but Tidy pointed out that in out-patients transient dyspepsia, without organic cause, was relatively commoner. This was in fact often to be regarded as a transient failure to adapt, and should respond to reassurance and sedation as an out-patient. Hurst (1941) also stressed the danger that either lack of such treatment, or over-hospitalization, might allow symptoms to be exaggerated or even become incurable. The syndrome may well be called effort dyspepsia (Hill, 1943).

American writers have tended to stress the psychological factors, and this view is supported by the work of Wolf and Wolff (1942). They were able to inspect the living gastric mucosa, and reported that changes in its surface accompanied certain emotions—pallor from fear or sadness, hyperaemia and hypermotibility from anxiety or resentment. The latter were also accompanied by heartburn, and in intense emotion to congestion and haemorrhage.

The question was also studied from the psychoanalytic angle by Alexander (1934). He regarded such organic changes as the end-result of a chain of processes, of which only the first was psychologically determined. (The symptoms were thus contrasted with those of conversion hysteria, which were a direct expression of an unconscious tendency.)

Alexander considered that there were three types of gastro-intestinal disorder which might result from psychological causes ; these he called gastric, colitic and constipation syndromes. The gastric, he thought, was due to a depression of oral-aggressive tendencies and the increase of receptive tendencies, with a chronic over-activity of the stomach (a chronic wish to be fed or chronic dependence). Over-compensation of this might lead to a conscious attitude of exaggerated independence, which he reported in certain cases.

His explanation of the psychological basis of colitis and constipation was, as he admitted, somewhat less convincing ; but he described colitis as a substitute for

the giving of real values and constipation as a reaction against the obligation to do so; and associated these syndromes with these attitudes in their possessors. Further, Alexander and Menninger (1936) described how the constipation syndrome might result in pessimism, melancholia or paranoid trends.

After reviewing much work, Dunn (1942*a*) makes the significant comment, "The British attitude to the importance of emotional factors is rather similar to that which was present regarding such factors in regard to neurocirculatory asthenia" (i.e effort syndrome) "prior to 1917."

On the whole, then, the rise in gastro-intestinal syndromes certainly seems as likely to be explained in terms of increased psychological stress as by physical reasons.

(iii) *Rheumatic complaints.*—These have been discussed by Ellman, Savage, Wittkower and Rodger (1942), and exhaustively by Halliday (1937*a* and *b*, 1942, and 1943). The latter's view is that at least 40 per cent. of non-arthritic rheumatism is in fact psychoneurotic. As he puts it, "persons who suffer from psychoneurotic illness not infrequently develop a symptom complex, which includes pains or aches and stiffness or limitation of movement with or without loss of power." These symptoms are regarded by many as due to organic disease, and labelled muscular rheumatism, myositis, fibrositis, lumbago, etc. The time and manner of onset may be determined by a combination of physical causes and psychological stress.

The latter may occur in several ways in Halliday's view. A transient emotion (e.g. anxiety or resentment) may become attached either to the site of an old injury or disease, or to the site where disease is feared (thus pleurodynia occurs in fear of tuberculosis). A third determining factor is symbolism; thus resentment or obstinacy may be expressed as stiffness, while aggression may be represented by brachial neuritis or sciatica (a repression of the desire to hit out or kick out).

The importance given to resentment in these views is to be noted.

(iv) *Headaches and dizziness.*—This syndrome is familiar enough to R.A.M.C. officers in the East; it has attracted less attention in print than might be expected. It has, however, been described by Palmer (1945), and from this it seems equally well known in the Middle East (as "Middle East headache"). It should not be regarded as a part of effort syndrome for several reasons: it is not accompanied by features which draw the patient's attention to his heart; the symptoms occur without exertion and are not always increased by it; they are sometimes the same in the hot weather in England, and they begin soon after arrival in the East, or after working in great heat and light as, for instance, servicing aircraft.

These cases are not sequels to heat stroke; indeed, in this connection it may be noted that heat stroke is less common than popularly feared. Thus Leishman and Kelsall (1944) surveyed 11,645 medical cases in a hospital in Western India and recorded only 49 cases due to heat. It is true, however, that any cases of true heat stroke who showed neurological symptoms would have been missed by this survey, and as these do appear in relatively higher proportions in neurological surveys (e.g. MacAlpine, 1946) the total figure will not be quite so low.

(v) *Psychosomatic symptoms in general.*—If these may be considered for a moment as a group, several points may be made:

(*a*) In many writings we see how important is the whole attitude of the doctor. This has been stressed by many psychiatrists—Ross, for instance (1944), and in the U.S. Army it drew a special directive from Menninger (1943). It is also supported by many eminent physicians—Ryle (1939), Tidy (1941), Parkinson (1941) and Conybeare (1945). Ryle puts it: "It is not rare for a patient to present himself in a state of anxiety because a suspicion of disease has been created by an unwise medical opinion." Hurst (1944) reminds the medical officer that he must accept the responsibility of treating his own cases without constant reference to specialists. The dangers of hospitalization were well summarized by the Medical Department of the U.S. Army report (1929): "The general hospital is the culture medium of the effort syndrome."

The importance of the doctor's behaviour must lie in the emotion it engenders in the mind of the patient.

(*b*) This leads to the whole question of the emotion which occurs (from any cause) simultaneously with a physical disability. It will be remembered that several authors discussed this, and described how in effort syndrome fear was common; in the gastric cases, a craving for appreciation; in the rheumatic, resentment. This was not, of course, constant in all cases of these types. A

shrewd prediction was made by Gordon (1940): "We may have to lay more stress on the significance of the situation present when the breakdown occurred, rather than on the history of the past."

(*c*) In each syndrome controversy has occurred on the relative importance of physical and psychological factors. In the longest discussed—effort syndrome—a middle view is coming to be accepted: that both are important, sometimes one more so, sometimes the other. It is not too much to suggest that a similar answer may be given to all psychosomatic syndromes.

It is also possible that even when one predominates, it is the combination of the two that is essential. Ryle (1936), for instance, has described how the origins of visceral neurosis may be found in previous inflammation, or in a specific sensitization; they may also be precipitated by external factors, such as cold, by fatigue, or emotion, and are predisposed to by the tension of anxiety. Moreover, several of these factors may be combined.

4. *Employment.*

Work may be unsatisfactory because it is too difficult, too easy, or of the wrong kind. The first will generally produce a sense of inadequacy in the individual, the latter two a sense of frustration. In this war the wastage due to unsatisfactory employment has been recognized, and the maximum attention has been given to matching the individual's intelligence and aptitudes with those required for specific jobs. Selection as a regular army procedure is now presumably permanent. Dunn (1941) has surveyed 130 articles (mostly English and American), and concludes: "The best means of prophylaxis is through proper selection of recruits. This is a conclusion now widely accepted. One finds emphasis on this point in nearly all the references." But circumstances may enforce idleness or work realized to be unsatisfactory. It is therefore necessary to consider the results on the individual.

(*a*) *Frustration.*—This term is commonly used to describe a feeling of wasted ability and consequent tension. It generally takes one of two rather different forms; either, first, a state of anxiety, irritability, restlessness, insomnia and some over-activity, with a feeling of underlying unrest, but a capacity of doing considerable work—at a cost to subordinates as well as to the sufferer; or second, an anxiety state with depressive features, which at times changes to apathy—a syndrome which, as Gillespie (1942) points out, is not unlike the medieval term "accidie," used (significantly) of monks who had mistaken their vocation.

Although the origin of frustration is in unsuitable work, its effects on the individual may be enhanced by certain conditions. Examples of these are:

(i) Idleness combined with *homesickness* has already been mentioned under the latter head.

(ii) Work in *base areas* has been the subject of a special study of officer patients (Tredgold, Heffernan, Kelly and Leigh, 1946). Here it was shown that out of 150 officers evacuated for psychiatric reasons from the Far East, 120 came from base areas. The lack of outlet for aggression and the sense of being out of the war were both considered severe stresses. As Mr. Churchill said, these officers lacked the stimulus of battle; it may be recalled that in *The Aftermath* (1929) he described the difference between the morale of base troops and fighting units.

(iii) *Staff work* increased frustration, and its causes have been described by MacCurdy (1943) in an illuminating account of the effects of departmentalism. Here the lack of outlet for aggression is even more important, for irritation and tension are vented on subordinates, so that a vicious spiral develops. The desire for scapegoats is significant; the next higher formation "they" are always blamed, so that G.H.Q., the apex, inevitably becomes a byword.

Explanations of these phenomena have been given on psychoanalytic lines.

Frustration was discussed very fully by Freud (1912). He applied it first to the removal of an actual object which satisfied an individual's erotic need. Frustration thus dammed up the libido and, therefore, tested both the individual's tolerance of tension and his manner of relief. He could transpose the tension into energy directed towards the outside world, and finally wrest from that world an actual satisfaction for the libido; or he could sublimate it to ends which were no longer erotic, and thus eluded the frustration. There is the danger of the libido becoming introverted, turning away from reality to take refuge in fantasies, generally reanimating earlier ones. Alternatively illness could occur from an internal

inability to seize a specific gratification offered. From this failure libido again may be dammed up, with similar results. Thus breakdown may occur either because the individual cannot renounce a gratification, or because he is too rigid to accept one.

Freud concludes with the warning that the antithesis of external and internal factors is likely to be unfruitful, and looks for the cause of neurosis in a definite mental situation, which can be brought about in different ways.

Although Freud's original views concerned an erotic need, it would seem from the above and later work (1933) that he included also substitutes. Thus: "The personality is healthy as long as his erotic need is satisfied by an actual object . . . he becomes neurotic as soon as he is deprived of this, and if no substitute is forthcoming." Rosenzweig (1938) discusses the question of frustration tolerance, and compares it with immunization; the normal individual, he considers, has a general high level of frustration tolerance (built up by normal education); the neurotic has a specific area of low tolerance, and the psychotic has many such areas, or a generalized low tolerance. Psychoanalytic treatment can thus be compared with desensitization, and the production of insight as closely allied to the formation of tolerance.

The specific symptom of depression is explained by MacCurdy (1925) as due to egotism outdistancing the supply of energy, and the intellectual endowment. Anxious thoughts and attitudes (significant alike of repression and of a sense of inferiority) appear in consciousness.

(*b*) *A sense of inadequacy.*—Little has been written about this result of unsatisfactory employment, though careful observers have noted it as a fundamental complaint. It is naturally often masked, and the individual seeks refuge in frank psychoneurotic complaints. The size of the problem was not widely realized before World War II, though it had been reported by a few—for example, Sandiford (1938), who was able to implement his own recommendations on his later appointment as first Director of Army Psychiatry.

There are certain other aspects of the employment which have drawn attention; notably the effects of (i) the type of unit and (ii) of the pace of work.

(i) *Incidence in different branches of the service.*—The distribution of cases in different branches of the service has been recorded by few writers. Evidence was scanty before the W.O. Enquiry (1922), but indicated that technicians in forward units might suffer unduly. James (1945) quoted that in the Middle East psychiatric cases were split up into the various branches of the service in a ratio which did not correspond to the normal distribution.

	Infantry.	Artillery.	Armoured Corps.	Other branches.	Total.
Psychiatric cases	22%	20%	12%	46%	100%
Normal strength	17%	22%	9%	52%	100%

James also commented that doctors averaged 9 per cent. of all officers admitted on psychiatric grounds.

(ii) *Changes in pace of work.*—An interesting effect on sailors of the pace of work and of changes in it is described by Curran and Garmany (1944) under the term "change of tempo." In their view the tension on life afloat developed an increased readiness and responsiveness, which persisted ashore as an anxiety state. It was emphasized that this occurred in men of apparently excellent personality, who had shown no overt signs of anxiety at sea. In the condition, there were both psychological and biological components, and it was to be regarded as an indication of a biological need to sustain the tesnion—that is, to make the environment suit the state of mind. A similar mechanism was presumably responsible for the occasional desires of fighter pilots and commandoes to spend their leave in excitement, e.g. on a destroyer. In fact, sedation and an early draft to sea were found to be beneficial. Symonds (1943) mentions that there is a greater tendency to delayed fear reactions among flying casualties who have to remain idle than among those who can be reoccupied at once. No doubt here an additional cause is increasing loss of confidence from absence from duty.

5. *War Aims.*

In morale, a fundamental factor is the soldier's faith and his conviction of the need to win. Napoleon's comment (1808), "in war the spiritual is to the material

as three to one," has been amplified by Montgomery (1945): " I call morale the great single factor in war. A high morale is based on discipline, self-respect and the confidence of the soldier in his weapons and himself." He also has no doubt of the connection of morale and health. " The morale of the Eighth Army is quite amazing. It has shown itself in a marked way in the sickness rate." In this connection may be rcealled Sillman's quotation (1943) of Bermann's comment that Loyalist Spanish soldiers who had enlisted from conviction suffered less from neurosis than did conscripts.

This was, of course, well known to the great leaders of history, whose victory in the field was often determined by their methods of training months before. Their writings are taken up more with morale building than with selection. It is only in the last war that selection procedure has been even as scientific as the classic experiment of Gideon at the well of Harod (Judges, vii).

There have been commanders like Henry V, who urged all to depart who had no stomach for the fight; but they seem to have done so more as a tonic for morale than as a means of selection. On the other hand, between Joshua's " Be strong " and his trumpets at Jericho to Montgomery's " I am not interested in plans for retreat " at Alamein, there is a long record of leaders' inspiration to morale, and their success is a measure of their power to embody their followers' war aims; it matters little whether the phrases are Cromwell's in 1644 or Churchill's in 1944.

The efforts of psychiatrists to deal with the subject have been hindered a little by prejudice, which is inevitable when new methods are applied to ancient convictions. Barrett (1944) has this in mind, presumably, when he writes of the U.S.A.F., " Under certain conditions every man will welcome whatever help he can get; the popular prejudice against things of the mind is diminished or absent." Moreover, much of the earlier work of doctors was concerned with the study of unfavourable factors in the environment, and it is surprising to find that the favourable were relatively neglected. But it is on the balance between favourable and unfavourable that the individual's impression of the environment depends; to increase the one is, therefore, as important as to decrease the other.

6. *Group Relations.*

The soldier's relations to his comrades and to his leader clearly influence his personal morale. The study of group behaviour and its fundamental psychological principles is, therefore, not irrelevant, but it is impossible here to do more than outline certain of the views of eminent writers, and those will be selected which are applicable to problems of service in the Far East.

Le Bon's original study (1920) described the group as very credulous, suggestible and lacking in critical power; very simple and labile in its emotions; excited by dramatic force and repetition, rather than by logic; to be ruled by authoritative behaviour. MacDougall (1920) drew a similar picture, but went further in suggesting that the group's mental life might be raised to a higher level by five conditions, namely, continuity of existence, interaction with other groups, a definite structure leading to differentiation of numbers, traditions to regulate inter-group behaviour, and an idea in each individual of the functions of the group. Freud (1921) pointed out that these conditions were, in fact, the means of regaining for the individual his distinctiveness which he had lost on joining the group (i.e. his own continuity, his own self-consciousness, etc.).

Trotter's explanation (1916) of group behaviour was in terms of the herd instinct, but was criticized by Freud (1921), who thought it did not give the leader sufficient emphasis. Freud, therefore, substituted the term " horde " for herd. His definition of a group was " a number of individuals who had substituted one and the same object for their ego ideal, and have consequently identified themselves with one another in their ego."

It is, of course, obvious that McDougall's conditions are present in a group such as the army; but it is less obvious to some what is really their essential nature. If Freud is correct in thinking that this depends on their success in regaining the individual's distinctiveness, then the latter point must always be borne in mind when man-management is being considered. That the soldier is a better soldier if he has some individuality of his own is a view which is in line with the findings of different work quoted above. It is not too much to suggest that its neglect is one of the particular dangers in the East.

Recently attempts have been made to translate these principles into practical advice. This has been described by several psychiatrists. The issue of outlines of lectures from officers to men (U.S. War Department, 1944) and the papers of Cohen (1944) and Freedman (1944) are examples of what is being done in the United States Army. In the British and Indian Army the subject has been regarded from the onset of the war as of supreme importance (Rees, 1943 and 1944 ; Main, 1943) ; but instruction on man-management has been more by local arrangements than by central direction. Nevertheless, psychiatrists may take some credit in the feat of maintaining morale of the vast army training in England between Dunkirk and D-day.

General Surveys of Literature.

Although some of the literature just surveyed deals directly with mental health in the Far East, much of it does not do so. It has, however, been selected deliberately from even more voluminous writings on the grounds that it refers to subjects which are of special significance in the East, and which deserve more direct study.

This may be clearer if a summary is made both of the direct information and of the indirect implications on points of this nature :

(i) A cross-section of psychiatric cases in the East is not the exact counterpart of one taken at home.

(ii) There is more psychosis in the East, mostly due to "schizophrenic" states, but partly to "toxic," partly to "excited" cases.

(iii) There has been a change in the distribution of types of psychoneurosis among British troops in the East in the two wars. In 1914–18 anxiety predominated among officers, hysteria in other ranks. In 1939–45 anxiety was commoner in both. There have also been increasing reports of certain somatic disorders.

(iv) The effects of enemy action have been extensively studied in the West.

(v) Domestic stress has been discussed by only a few writers, but they have done so in challenging terms.

(vi) The importance of physical factors in psychosomatic disorder is still controversial, but the trend of opinion is that the combination of physical and psychological stress is far more serious than either alone.

(vii) The emotional attitude of the individual who is exposed to any environmental stress is supremely important.

(viii) Frustration is significant, especially in staff officers and in base areas.

(ix) Changes in the tempo of activity may act as psychological strain.

(x) There is yet no general agreement about the importance of constitutional factors, nor about the best methods to assess them.

(xi) Faith and war aims are recognized to have a marked effect on mental health by successful soldiers ; there are fewer accounts of this by the medical profession.

Conclusions.

This summary of the literature should be considered in conjunction with the summary of observations made earlier in this paper. In this way several points which appear at first sight unconnected take shape as part of a definite pattern.

Increase of Psychosis.

This increase, in particular in the form of manic states, has been fully discussed elsewhere (Tredgold, 1947), where an explanation was put forward in psychological terms rather than physical. A list of 23 patients was described, most of the affected being of the over-conscientious, responsible type employed on staff work calculated to increase their obsessional tendencies and anxiety. War had produced a sense of urgency; relaxations were more restricted; in staff work and base areas there was no outlet for aggression and little sense of achievement.

It is not too difficult, therefore, to regard this rise in psychosis as an indication that psychological factors are far more widely spread than generally realized, and that they affect far more than those who develop frank psychosis. Information may then be obtained both about a much wider group of psychiatric cases, and about the fluctuations in mental health of those who never report sick. The general interplay of factors which cause breakdown will first be described.

The Interplay of Factors in Individual Breakdown.

The review of literature displayed two main schools of thought—(i) that the essential factor was always an inherent defect of personality, and (ii) that external stress might occasionally overwhelm a normal individual. The work submitted here supports the latter view; but it is agreed, naturally, that in certain cases inherent defects of personality do exist. None of these defects (except dullness) is yet accurately recognized; but more success is likely to be obtained by the study of personality types than by that of psychoneurotic traits. It is thus not a mathematical problem of stress against resistance, but a more complicated one. There are, briefly, three possible explanations why some individuals break under circumstances which others surmount: (*a*) that their general resistance is less, (*b*) that their specific resistance is less, and (*c*) that they are affected at the same time by other adverse factors—or possibly by a lack of favourable ones. Probably each explanation is true in certain cases.

(*a*) Those individuals with little general resistance are those who will break down at the slightest stress. They are of little value as soldiers; their detection is a simple matter; for the machinery of selection catches most, and ensures that they are either discharged from the service forthwith, or employed only on simple duties. They are relatively few.

(*b*) Certain men have a specific failure of resistance, as it might be a chink in their armour. This may be innate, or be due to a wound in the personality's structure—caused by past experience (or a series of experiences), and still present as a tender scar. This has been described by Anderson (quoted above), but to illustrate it may be quoted as a typical case a soldier exposed to severe battle trauma who is given no adequate treatment; he carries with him his psychic scars, but he adapts to various stresses quite successfully till he is again exposed to battle, and immediately breaks down.

This is the explanation, not only why the soldier breaks down under stress which others tolerate, but why the behaviour of his neighbours at the time is

so important. It may in fact enlarge the chink in his armour by producing further emotional stress. The evidence for this lies in the account of the various emotions associated with physical ailments and leading to psychosomatic disorders. Controlled work on this is most difficult, but the results illustrated by incidence and by case material are very suggestive. The attitude, for instance, of the first medical officer seen, or of the commanding officer, can be paramount in determining whether or no a particular soldier surmounts his difficulties. Indeed it is within the individual experience of most of us how sympathy (or the reverse) "made all the difference." So that it is all the more surprising so little detailed study has taken place on the subject.

It is probably because this aspect of the matter has been neglected that studies of personality traits have produced such inconsistent results. The successes of prediction no doubt are the cases in whom general personality weakness is the determining factor. Their failures perhaps are those where there is a specific, but not obvious, weakness.

(*c*) External coincidental factors may increase the stress by sheer overwhelming effect. This occurred in a number of cases seen and the additional factors were clear enough. There is another point here—that is, the wider influences affecting the group and so each member of it. These are difficult to assess, but should not be forgotten.

Within this framework, however, the mental health of the individual may be seen at the centre of the picture, the point on which many forces converge from all sides. It is fundamental for an understanding of the picture that we should know which forces are the strongest in each case; it is also an essential preliminary if we are to design measures to maintain the mental health of the future Army—and perhaps of the future society. It is true that the stresses are different for the civilian and the soldier, but they are sometimes comparable. Moreover, as long as conscription exists, the mental health of the young man doing his military service will be of great importance to the welfare of the community.

Measures of Prevention.

The detailed design of measures of prevention is outside the scope of this work, but as the broad principles have been implied in the above discussion they will be summarized here.

If it is accepted that there is an interplay between any especial mental weakness the soldier may have, the stress he meets, and the attitude of others during and just after this stress, this should be looked for in each case, and looked for in terms of its effect on his sense of his own value, and his sense of being appreciated. If these effects happen to be of the same kind, their cumulative weight will be very severe; but if not, they will constitute only a minor strain for the individual. Whether these three are in fact of the same kind seems at present very much a matter of chance; but this need not be so, for there is no doubt that the individual's particular weakness can be discovered, and that stress likely to play on it can be predicted. It is also possible to predict the effect of certain emotional attitudes.

There are thus four lines of approach to the whole question of prevention :

1. The healing of the individual's scars. No doubt this is not easy, but it is possible, and less a problem than one which psychiatrists often undertake quite willingly—that of treating the man whose wounds have not healed at all.

2. The diminution of the effect of external stress by removing its unnecessary exaggerations. Battle inoculation has shown the way here ; careful explanation of the facts would prevent much exaggeration of homesickness or of minor physical ailments.

3. The removal of adverse emotional attitudes from men vulnerable to them. This entails instruction of how to treat our fellows rather than of how to treat ourselves, and it is, of course, particularly applicable to the young officer. It is true that, without a long acquaintance with psychology, it would not be easy to teach him how to recognize the presence and type of scars in an individual, but this is unnecessary, for it is possible to lay down certain guidance for his handling of men obviously exposed to external stress.

4. Finally, the improvement of the soldier's general mental health by appealing to those qualities which counter stresses—his faith in his cause, his confidence in his leaders, his sense of his own value, good comradeship, justice and order.

Such work, I submit, would go far to diminish the rate of psychiatric disorder —still alarmingly high in peace and in war—and also to raise the mental health of the Army and community.

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Bibliography.

Alexander, F. (1934), *Psychoanal. Quart.*, **3**.
Idem and Menninger, W. C. (1936), *J. Nerv. and Ment. Dis.*, **84**, 5.
Anderson, R. C. (1946), *Occupational Med.*, **1**, 121.
Ballard, S. I., and Miller, H. G. (1944), *Brit. Med. J.*, **2**, 40.
Barrett, W. G. (1944), *War Medicine*, **5**, 3.
Blacker, C. P. (1946), *Neurosis and the Mental Health Services*, p. 149. Oxford University Press.
Bleuler (1906), *Psych. Neurol. Wchsch.*, **8**, 34. Quoted by McCurdy (1925).
Bonhoeffer (1934), *Münch. med. Wchsch.*, **2**, 1213.
Brooks, H. (1929), quoted *Med. Dept. of U.S. Army*, q.v.

BROWNE, E. W., COATES, W. B., and WELLS, A. F. (1946), report to War Office.
Bull. Army Hygiene (1945).
Ibid. (1946).
BURDON, J. F. (1944), *J. Ment. Sci.*, **90**, 746.
CHURCHILL, W. S. (1929), *The Aftermath*. London.
COHEN, R. R. (1944), *War Medicine*, **5**, 83, and *Ment. Hygiene*, **28**, 3, 368.
CONYBEARE, J. J. (1945), *Introduction to Psychological Medicine*, by Curran and Guttman. 2nd. edit. London.
CRAIGIE, H. B. (1944), *Brit. Med. J.*, **2**, 105.
CRILE, G. W. (1940), *Milit. Surg.*, **87**, 509.
CULPIN, M. (1931), *Recent Advances in Psychoneuroses*. London: Churchill.
CURRAN, D. (1945), unpublished communication.
Idem and GARMANY, G. (1944), *Brit. Med. J.*, **2**, 144.
Idem and GUTTMAN, E. (1945), *Psychological Medicine*. 2nd edit. Edinburgh: Livingstone.
DA COSTA, J. M. (1871), *Am. J. Med. Sci.*, **71**, 17.
DAVIES, D. T., and WILSON, A. T. M. (1937), *Lancet*, **2**, 1353.
DAVIS, P. J. R. (1946), *J. R.A.M.C.*, **86**, 254.
DUNN, W. H. (1941), *Psych. Bull.*, **38**, 6, 497.
Idem (1942*a*), *Psychosom. Med.*, **4**, 333.
Idem (1942*b*), *War Medicine*, **2**, 967.
ELLMAN, P., SAVAGE, O. A., WITTKOWER, E., and RODGER, T. F. (1942), *Ann. Rheum. Dis.*, **3**, 1.
EWALT, J. R. (1944), *J.A.M.A.*, **126**, 3, 150.
FAIRBAIRN, W. R. D. (1943), *Brit. Med. J.*, **1**, 183.
FARAGO, L. (1941), *German Psychological Warfare*. New York: Ct. for National Morale.
FRAZER, F. R. (1940), *Edin. Med. J.*, **47**, 451
FREEDMAN, H. L. (1944), *Unique Structure and Functions of Mental Hygiene Unit in the Army*.
FREUD, S. (1896), *Neurol. Zentralbl.*, No. 10. Quoted by MacCurdy (1925).
Idem (1933), *Collected Papers II*. London: Hogarth Press (J. Riviere).
Idem (1912), published in *A General Selection*, p. 71. London: Hogarth Press (1937).
GAINSBOROUGH, H., and SLATER, E. (1946), *Brit. Med. J.*, **2**, 253.
GILLESPIE, R. D. (1942), *Psychological Effects of War*. London.
Idem (1945), *Brit. Med. J.*, **1**, 653.
GORDON, R. G. (1940), *The Neuroses in War*, Ed. E. Miller. London: Macmillan.
GRANT, R. T. (1940), *Guy's Hosp. Gaz.*, **54**, 216.
GREIBER, M. F. (1945), *War Medicine*, **8**, 2, 85.
GRINKER, R. R., and SPIEGEL, J. P. (1944), *Manual of Military Neuropsych*. Philadelphia. Quoted by Strecker and Appel, *q.v.*
HALLIDAY, J. L. (1937*a*), *Brit. Med. J.*, **1**, 213, 364.
Idem (1937*b*), *Proc. Roy. Soc. Med.*, **31**, 167.
Idem (1942), *ibid.*, **35**, 455.
Idem (1943), *Lancet*, **2**, 692.
Idem (1944), *Practitioner*, **152**, 6.
Idem (1946), *Lancet*, **2**, 185.
HARGREAVES, G. R. (1940), unpublished report to W.O.
HASTINGS, D. W., WRIGHT, D. G., and GLUECK, B. C. (1944), *Psychiatric Experience of Eighth Air Force*.
HILL, L. C. (1943), *Lancet*, **1**, 452.
History of Great War based on Official Documents (1931), *Medical Services*, **2**. London.
HURLEY, T. M. (1945), unpublished communication.
HURST, Sir A. (1941), *Proc. Roy. Soc. Med.*, **34**, 411.
Idem (1944), *Med. Diseases of War*. London: Arnold.
HYLAND, H. H., and RICHARDSON, J. C. (1942), *Can. Med. Assoc. J.*, **47**, 432.
JAMES, G. W. B. (1945), *Lancet*, **2**, 801.
JONES, M., and LEWIS, A. J. (1941), *ibid.*, **1**, 813.
JUNG, C. G. (1907), *Über die Psychologie der Dementia Praecox*. Halle: Marhold. Quoted by MacCurdy (1925), *q.v.*
Lancet (1944), Editorial, **1**, 505.
LE BON, G. (1920), *The Crowd*.
LEISHMAN, A. W. D., and KELSALL, A. R. (1944), *Lancet*, **2**, 231.
LEWIS, Sir T. (1918), *Soldier's Heart and Effort Syndrome*. London: Shaw.
MCALPINE, D. (1946), *Proc. Roy. Soc. Med.*, **39**, 169.
MACCURDY, J. T. (1925), *Psychology of Emotion*. London: Kegan Paul.
MCDOUGALL, W. (1920), *The Group Mind*. Cambridge University Press.
Idem (1943), *The Structure of Morale*. Cambridge University Press.
MAIN, T. F. (1943), *Report to W.O. on Psychological Problems of Soldiers Overseas*.
MATAS, J. (1945), unpublished communication.
MATHEWS, J. R. (1944), unpublished communication.
Medical Dept. of U.S. Army in World War (1929), **10**. Washington: Government Printing Office.
MENNINGER, W. C. (1937), *The Human Mind*. New York: Knopf.
Idem (1943), *U.S. Army Med. Dept. Bull.*, **71**.

MILLER, E., WILSON, A. T. M., and WITTKOWER, E. (1940), *The Neuroses in War*. London: Macmillan.
MILLER, J. W. (1945), unpublished communication.
MIRA, E. (1939), *Brit. Med. J.*, **1**, 1217.
MITCHELL, S. D., and MULLIN, C. S. (1944), *J. Ment. Sci.*, **90**, 381.
MONTGOMERY, Lord (1943), *Britain*, **2**, 6.
Idem (1946), *Military Leadership*. Oxford University Press.
MULLINDER, E. K. (1945), *Brit. Med. J.*, **1**, 733.
NAPOLEON I. (1808), *Correspondence*, **18**, 14276.
PALMER, H. A. (1945), *Lancet*, **2**, 454.
PARKINSON, J. (1941), *Brit. Med. J.*, **1**, 545.
PAYNE, R. T., and NEWMAN, C. (1940), *ibid.*, **2**, 819.
PORTER, W. C. (1943), *Am. J. Psych.*, **99**, 6.
RATCLIFF, T. A. (1946), unpublished communication.
REES, J. R. (1943), *Brit. Med. J.*, **1**, 1.
Idem (1944), *Bull. Menninger Clin.*, **8**, 29.
ROSENZWEIG, S. (1938), *Psychiatry*, **1**, 4.
ROSS, T. A. (1941), *Lectures on War Neuroses*.
Idem (1944), in Sir A. Hurst's *Med. Diseases of War*. London: Arnold.
RYLE, J. A. (1939), *Lancet*, **2**, 297.
Idem (1936), *Nat. Hist. of Disease*. Oxford University Press.
SANDIFORD, H. A. (1938), *J. R.A.M.C.*, **71**, 222.
SARGANT, W., and SLATER, E. (1940), *Lancet*, **2**, 1.
SHEPS, J. G. (1944), *J.A.M.A.*, **126**, 271.
SILLMAN, L. R. (1943), *War Medicine*, **3**, 498.
SPILLANE, J. D. (1941), *Brit. Med. J.*, **1**, 333.
SQUIRES (1933), *Proc. Roy. Soc. Med.*, **26**, 917.
STEINBERG, D. L., and WITTMAN, M. F. (1943), *War Medicine*, **4**, 129.
STEPHENSON, G. V. (1944), unpublished communication.
STOCKINGS, G. T. (1945), *J. Ment. Sci.*, **91**, 110.
STRECKER, E. A., and APPEL, K. E. (1945), *Psychiatry in Modern Warfare*. New York: Macmillan.
SYMONDS, C. P. (1943), *Brit. Med. J.*, **2**, 703.
TAYLOR, S. (1940), *Lancet*, **2**, 404.
TIDY, H. L. (1941), *Proc. Roy. Soc. Med.*, **34**, 411.
TOOTH, G. (1944), *Brit. Med. J.*, **1**, 358.
TREDGOLD, R. F. (1947), *Brit. Med. J.*, **2**, 522.
Idem, KELLY, G., HEFFERNAN, H. N., and LEIGH, P. R. W. (1946), *Lancet*, **2**, 257.
TROTTER, W. (1916), *Instincts of the Herd in Peace and War*. London: T. Fisher Unwin.
UHLMANN (1918), *Korresp. Schweiz. Aerz.*, **48**, 345. Quoted Wittkower and Spillane (1940), *q.v.*
U.S. WAR DEPT (1944), *Tech. Bull. Med.*, **12**.
War Office Committee of Enquiry into Shellshock (1922). London: H.M. Stationery Office.
WEXBERG, L. E. (1944), *Man. Mil. Neuropsych.* Philadelphia. Quoted by Strecker and Appel, *q.v.*
WISHAW, R. (1937), *Med. J. Aust.*, **24**, 360.
WITTKOWER, E., RODGER, T. F., and WILSON, A. T. M. (1941), *Lancet*, **1**, 531.
Idem, and SPILLANE, J. D. (1940), *The Neuroses in War*. Ed. E. Miller. London: Macmillan.
WOLF, S., and WOLFF, H. G. (1942), *J.A.M.A.*, **120**, 670.
ZABRISKIE, E., and BRUSH, A. L. (1941), *Psychosom. Med.*, **3**, 295.