My thanks are due to Dr. W. S. Maclay, the medical superintendent, and his staff for their co-operation.

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PSYCHIATRIC CASUALTIES IN A WOMEN'S SERVICE

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Little has been written of the war neuroses as they affect the women's Services. From a joint personal experience of nearly 1,000 such cases, we believe that some features of interest arise, and that a brief analysis of our material and of the factors leading to breakdown in this minority of the W.A.A.F. population may have some importance, not only because of the economic and social issues involved but also in relation to the general theory of the war neuroses.

We are unable to give figures showing the respective incidence of psychiatric disability among men and women in the Service, and it seems unlikely that such figures will become available during the war. Many medical officers of mixed units state that there is an appreciably higher incidence in women. The accompanying Table shows the diagnoses in two groups of consecutive psychiatric cases seen.

Diagnosis	Cases among 250 Consecutive Airmen Referred	Cases among 250 Consecutive Airwomen Referred
Anxiety states	100	65
Hysteria	56	105
Psychopathy	70	53
Mental defect	8	18
Psychosis	12	7
Other psychiatric conditions	4	2

Mental Defect

These cases represent about 7% of the airwomen in our series invalided on psychiatric grounds, and 44% of the group were referred because of executive difficulties. We would stress that, at all levels, usefulness in the Service depends more on emotional stability than on intelligence quotients. Two-thirds of these defectives were emotionally unstable, and over three-quarters had very poor civil employment records. Nevertheless some of them do useful work under Service conditions, and in this they are materially assisted by the existence of work suited to their intellectual level: they are less likely to be pushed into the technical training which so often leads to rapid breakdown in male defectives.

The few psychotic airwomen seen were not invalided direct, but were admitted to hospital, and, defectives and psychotics excepted, the remainder of cases invalided are classified as anxiety states (16%), hysteria (50%), and psychopathic states (34%). It is with these groups, comprising about 90% of our psychiatric invalids, that this paper is chiefly concerned.

Psychoneurosis

A striking feature is the preponderance of hysterical reactions in the female cases, seen in the table of cases referred and even more marked in the invalided group.

In general, the clinical features of the psychoneuroses are similar to those found in men, but an important symptomatological difference was noted in that the somatic expressions of emotional disturbance were less common among females, who tended to show an overt emotional upset rather than one masked by physical symptoms. Thus nervous dyspepsia, a common psychosomatic illness in men, is rarely seen in women. When psychosomatic symptoms do occur in the latter they tend to be of a vague type and frequently take the form of headaches, ill-determined emotional faints, "rheumatic pains," backaches, or gynaecological complaints especially related to menstruation. Similarly, major conversion symptoms, fugues, and amnesias are rare among W.A.A.F. personnel suffering from hysteria. It would appear that the socially acknowledged and permitted emotionalism of women allows of a more direct expression of adaptive and emotional difficulties, and that this renders prolonged and inconvenient physical symptoms superfluous. Men, on the other hand, submit to a sterner social and emotional code. They have, therefore, a greater need to preserve their self-esteem by the development of a more complex disguise or escape mechanism.

At the extreme end of the scale a small number of highly unstable young women showed an acute and usually transient breakdown, often hysterical but sometimes schizoid in type. This usually occurred shortly after joining the Service, and represented a complete failure of adaptation. Similar cases were seen in men, who were invariably, however, of low intelligence bordering on the level of high-grade feeble-mindedness.

In aetiology domestic factors were important, and were found in a third of all anxiety states in both sexes. A fairly common finding, also in both groups, consisted of feelings of frustration, amounting in some cases to paranoid reactions, which cleared up when an obvious environmental difficulty could be overcome.

Psychopathy and Temperamental Instability

The classification of "psychopathy" covers two distinct groups of cases. First there are the true "constitutional" psychopaths of the predominantly inadequate or predominantly aggressive types. These usually give a psychopathic family history, and have a past record of gross personality difficulties and maladaptation dating from early life. The inadequate and feckless is the commoner type, personified by the shy, over-protected, and often socially "superior" female with interests and activities limited to the immediate family circle. Typically the only or the youngest child of elderly parents, and with a history of minor neurosis, she often stated that she joined the Service on medical advice. Such women are apt to make much of minor ailments and to fail in adapting to communal life, routine work, and the absence of special consideration.

Examples of the aggressive group, who show irresponsibility, unscrupulousness, and rebellious antisocial activity, are not rare. These patients are frequently vivacious, attractive, and intelligent products of parental overspoiling, whose egocentricity is often expressed in conduct disorder or hysterical symptoms in the face of unpalatable regimentation. They are, however, a menace to unit morale and discipline, and, in women at any rate, the Service usefulness of either group is slight.

We have arbitrarily separated from the classical psychopathies a group of temperamentally unstable individuals which is numerically as great, and clinically as important from the Service standpoint, as the psychopaths. While it is obvious that if seen in civil practice these would be classified as psychopathic personalities, their pre-Service social history shows little evidence of maladaptation although their personality structure shows clear indications of psychopathic instability. In civil life, living at their own level, such individuals have been able to compensate their predisposition, and a breakdown with neurosis or conduct disorder of an aggressive or rebellious type occurs only on exposure to the unusual demands of Service life.

Members of the classical psychopathic groups are usually invalided at an early stage, and it is from the temperamentally unstable group that the "problem cases" of the W.A.A.F. are principally drawn. They are problems from the executive and medical points of view, for while they show gross conduct disorder and ruthless determination in pursuit of their own

ends, there is little abnormal to be detected on an ordinary psychiatric examination, and their diagnostic labelling comes to depend upon the history of repeated disciplinary offences, and the failure of repeated disciplinary measures to deter them. In this respect, however, it is to be noted that, while in dealing with men the attainment of some measure of social responsibility can be assisted by disciplinary action, the disciplinary powers in a women's Service are so much less stringent as to be inadequate in many cases, and it is therefore found in practice impossible to push these cases as vigorously and to such effect as can be done with men of a similar type.

Predisposition

In dealing with large numbers of these cases it became obvious that predisposition to neurosis was of considerable importance in aetiology and also in prognosis. By "predisposition" is meant a measurement of the degree of liability of the individual to break down in a neurotic pattern when exposed to stress. In general terms it is assessed by means of a historical survey of personality structure, previous reaction to stress, and hereditary indebtedness. The assessment rests upon the established clinical observation that a subject who has reacted neurotically to past situations is likely to react in similar fashion to present and to future stress. In this connexion 86% of a series of 100 consecutive psychoneurotic and psychopathic members of the W.A.A.F. seen by us showed severe or moderately severe predisposition, and 80% of a similar series of 100 airmen were also graded in this degree of predisposition.

In contrast, control groups of 100 cases of organic neurological disorder in each of the sexes showed only 20% of subjects severely predisposed to neurosis, despite the fact that the control groups included a proportion of cases of epilepsy and migraine, both of which are commonly associated with nervous instability.

In a previous paper (Ballard and Miller, 1944) we have drawn attention to the fact that 48% of airwomen as opposed to 10% of airmen referred with neuropsychiatric complaints were invalidated from the Service. It is obvious that the reason for this difference lies not so much in a quantitatively greater amount of predisposition as in qualitative differences in the faults of personality structure, which together constitute predisposition. It is probable, also, that specialists tend to discard members of the W.A.A.F. more readily than they do airmen. We feel, however, that this trend is largely due to an inherent recognition by specialists of greater instability and less adaptability among women. There was a greater tendency among airwomen to lack persistence, which had led to a poor work record in civilian life in 62% of members of the W.A.A.F. as compared with 46% of airmen.

Psychosexual immaturity with poor socialization, sexual maladaptations, over-dependence on parents, intrafamilial ties or friction, and marital failures were found in 73% of W.A.A.F.s but in only 39% of airmen. These trends were important in the production of separation anxieties of all types (home-sickness, family or marital conflicts) and were conducive to the occurrence of neurotic solutions for, and escape mechanisms from, their difficulties. Among the female psychopaths and temperamentally unstable, 28% were "only children," with a record of spoiling and fostered egocentricity: in the equivalent male group 11% were "only children." In the same groups 28% of women as compared with 16% of men were below average intelligence. Traits of emotional instability were found in 73% of the female cases and in 54% of the male series.

There are other important contributory factors in our series: a positive psychiatric family history occurred in 60% of all cases in both sexes, while 41% similarly showed poor health records. These factors, with others analysed, showed general close approximation of incidence in both series. A further important operative factor in the W.A.A.F. lies in the psychological significance of service in the armed Forces, implying as it does the subordination of traditional female values and primary biological functions in the compulsory interruption of the reproductive career at its optimum period.

It would therefore appear that adaptive failure is more likely to occur in women on account of the traits of immaturity and

emotional and occupational instability. Because of these traits, attempts to drive such women by disciplinary means are likely to result in further neurotic manifestations. We do not, however, believe that discipline should not be used in these cases, and we are of the opinion that if effective disciplinary measures were available in the handling of merely unruly and temperamentally unstable women their conduct disorders would be reduced or better controlled and invaliding would be more closely confined to the psychoneurotics, true psychopaths, psychoses, and the remaining psychiatric casualties. It is the combination of ineffective discipline with qualitative difference of predisposition which accounts for the higher rate of invaliding in women.

Discussion

In relation to the general theory of the war neuroses the incidence in serving women raises some interesting questions. The war of 1914-18 saw the abandonment of the view that the aetiology of these conditions was physical, and replaced it with the psychological view that they arose from conflict between the instincts of self-preservation and self-respect based on the standards of the herd. This conflict had its origin in fear—fear of death or of physical injury. Such a conflict undoubtedly exists under battle conditions, and in these circumstances is perhaps almost universal. Of itself, however, it hardly serves to explain why some break down while others deal satisfactorily with the conflict, nor does it account for the large proportion of war neuroses unrelated to battle stress.

While, then, this was at any rate a psychological explanation and a step forward, it has become increasingly evident in this war that such a conflict is by no means the only or even the central factor in most war neuroses in Service personnel. The relative infrequency of neurotic breakdown in civilian populations exposed to great physical danger in their familiar surroundings, the incidence of typical war neuroses in base troops unexposed to physical stress of any kind, and the occasional occurrence of suicide in such personnel, without the stress of imminent physical danger, all indicate the inadequacy of this hypothesis.

Further investigation has emphasized the importance of predisposition and total personality in determining the nature and degree of neurotic reactions to war conditions, demonstrating the roots of these neuroses rather in earlier faults of personality development than in the immediate situation. Scarcely any of the airwomen in our group who broke down with neurotic illness had faced any physical danger; indeed, most of them had lived under safer conditions than their sisters at home, yet they broke down with symptoms similar to, if not identical with, those shown by personnel exposed to combatant stress.

Fairbairn (1943) has recently emphasized the emotional immaturity of the neurotically predisposed individual and his over-dependence on family surroundings, and has drawn attention to the role of home-sickness and separation-anxiety in leading to breakdown in these subjects. Such factors are certainly prominent in a high proportion of the cases under discussion, which illustrate also the closely related influence of unit morale on the incidence of neurotic breakdown. The unit of good morale, whether it be an operational aircraft squadron, a crack regiment, or a ship's company, provides a sense of emotional security and of "belonging" akin to that of the family in its warmth and spirit. Among much of the R.A.F. ground personnel and in the W.A.A.F. this factor is difficult of achievement. A system of individual postings tends to break up the emotional ties which hold together unit morale and, in addition, such events not infrequently provoke emotional upsets in many airwomen prone to the development of strong individual emotional ties of both a heterosexual and a homosexual nature.

Summary

Experience of a large series of cases of neurotic breakdown in a women's Service indicates the paramount importance of predisposition to neurosis. The emotionally immature and over-dependent, in particular, stand up badly to separation from home, and anxiety arising on this score is an extremely common factor. The higher incidence of frankly emotional and hysterical disturbances, the less frequent and qualitatively different psychosomatic reactions, and the

problem of psychopathy and conduct disorder in women are noted, and an attempt is made to show the relation of this material to the general problem of the war neuroses.

We wish to thank Air Vice-Marshal C. P. Symonds, C.B., and Air Commodore R. D. Gillespie for encouragement and criticism in the preparation of this paper.

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LUDWIG'S ANGINA

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Ludwig's angina, if not promptly recognized as such, is often fatal. This symptom-complex of a floating tongue with submandibular cellulitis is not uncommon among East African native troops, and during the last 30 months we have had to treat 20 such cases. It is the purpose of this paper to direct attention once again to the cardinal signs which herald the onset of the syndrome and to outline a system of management which has proved satisfactory and, in our experience, has appreciably reduced the mortality.

The higher incidence among native troops may be due to several factors. Kekwick and Wright (1945) have recently demonstrated that low-grade vitamin C deficiency is prevalent, and it is possible that this leads to a decreased resistance to oral sepsis. The African also has a well-recognized liability to coccal infections, and submandibular cellulitis may be just another manifestation of this tendency. Further, the native shows a hesitancy in seeking dental treatment until he suffers from marked disability, and in some cases this neglect has initiated the condition.

Where the focus of infection in Ludwig's angina is dental the third lower molar is most commonly the tooth involved, for the following reasons. The inner alveolar plate is thinner than the outer, thus facilitating the spread of infection deep to the cervical fascia and myelohyoid muscles. Again, despite the fact that the African is more prognathous than the European, there is sometimes insufficient room for the complete eruption of the third lower molar. This partially erupted tooth is consequently more prone to pericoronal infection. Alternatively, the infection may be periapical in origin, arising from any of the lower teeth.

An intermediate stage in the pathology is an acute alveolar abscess in the case of periapical infection or a pericoronal abscess in the case of a partially erupted third lower molar. It is imperative to recognize the differential diagnosis between an uncomplicated alveolar or pericoronal abscess and one in which the sepsis has spread into the deep structures of the floor of the mouth, for in the latter stage intraoral drainage by extraction of a tooth or removal of a gum-flap will not provide adequate drainage once the pus has tracked forward in the slanting trough of the myelohyoids, and prompt external drainage is essential. For this reason, where such a spread is a possibility, it is important that the patient should be seen by both a surgeon and a dental surgeon, and that subsequent treatment should be carried out in the closest collaboration.

The cardinal signs (Fig. 1) are:

1. *A Floating Tongue*.—An inflammatory process with or without formation of pus in the floor of the mouth, firmly embraced by the myelohyoids and deep cervical fascia, causes the tongue to be elevated, and in severe cases extruded. Intraoral oedema is pronounced, and in some cases reaches up to the necks of the teeth. Dyspnoea and dysphagia may result from oedema or from pressure on the trachea and oesophagus.

2. *Submandibular Cellulitis*.—This is a diffuse and tender swelling beneath the jaw which may cross the midline of the neck. It must be emphasized that it is extremely dangerous to withhold treatment while awaiting fluctuation, for the patient may succumb to toxæmia

or respiratory obstruction before pus is formed, and it is essential that pressure on the deep structures be relieved by sectioning the deep cervical fascia and one or both myelohyoid muscles. Others have reiterated that when the tongue is elevated and there are signs of a submandibular cellulitis the patient is suffering from Ludwig's angina. The diagnosis of the lesion is the indication for operative treatment. Delay is dangerous, and in our opinion surgical intervention is urgent when these two signs are manifest.

FIG. 1

Surgical Preparation

It is of paramount importance that a tracheotomy set should be available in the theatre, and should accompany the patient on his return to the ward. It must remain there for 24 hours, or longer if indicated. This simple precaution is not superfluous, and must never be omitted from the surgical routine. The choice of anaesthesia is determined by the facilities available. We have found local analgesia to be unsatisfactory because of its inability to allow adequate dissection. Ethyl chloride is hazardous in the extreme because of the tendency to spasm of the laryngeal muscles. Where full hospital facilities are at hand the safest method of anaesthesia is by endotracheal nitrous oxide and oxygen, to which a small quantity of ether may be added. Where such facilities are not at hand we have found light chloroform analgesia to be the safest method, preceded by adequate premedication, but, as in any form of anaesthesia, the most important factor remains the skill and experience of the anaesthetist.

Operation

A curved incision is made about one inch below the mandible, extending from a point below the third molar to the midline, or across the midline if indicated. This is deepened to the level of the myelohyoid, which is sectioned. Frequently pus has spilled over the posterior border of this muscle and is found superficial to it, but provided the origin of the inflammatory process is not in the submental glands, section of the

FIG. 2

muscle is indicated. A drain is introduced, but instead of merely draining the space it is passed on through the floor of the mouth, emerging between the lingual border of the mandible and the tongue (Fry *et al.*, 1942). The part of the tube that is lying in the submandibular structures is fenestrated (Fig. 2).