SOCIAL FACTORS IN COMBAT FATIGUE: A STUDY OF 341 MEN OF THE UNITED STATES NAVY, AMPHIBIOUS FORCE, WHO WERE DIAGNOSED COMBAT FATIGUE

By

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A THESIS

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PART I

INTRODUCTION

CHAPTER I

PSYCHOPATHOLOGY IN WAR

Advancements in knowledge of human behavior have been related to significant discoveries in biology and in the fields of psychic and social phenomena. Each stage of development in biology, psychology, and sociology opened new areas of human behavior for investigation and attracted the interests and guided the labors of the students of the time. The study and investigation concomitant with each successive stage of development produced theory of causation, methodology, and even symptomatology in terms of existing knowledge in the contemporary period.

Social factors, which may be broadly defined as any factors which have their origin or significance in interactional relationships between persons, have long been given some attention in the study of human behavior. They have, from time to time, been related to pathology and have been considered in the study of personality maladjustments, psychoneuroses and psychotic conditions.

Concomitant with increased understanding of social relationships and cultural influences, has been a shift in psychological and psychoanalytical theory. Structuralism, instinctivism, behaviorism, the dynamic psychology of Woodworth, Koffka's and Kohler's Gestalt psychology, have all made their respective contributions to understanding the psychic aspects of social behavior. Possibly Freud made the greatest contribution of all. But Freudianism has

undergone continuous reinterpretation and modification. Much of contemporary psychoanalytic literature presents wide variations from Freud in both theory and practice. The variation frequently has been in the direction of giving greater consideration to sociocultural factors. Kardiner and Linton, working together, have demonstrated the interrelationship between anthropology and psychiatry.¹

With the development of behaviorism, the instinct theory was attacked by Dunlap, Kantor, Hunter, L. L. Bernard, and Faris. The study of attitudes and the work of the early interactionists, particularly that of Mead, Cooley, and Dewey, gave rise to modern social psychology.

> . . . we have seen that there has been a distinct movement away from the older static conceptions of traditional individual psychologies: associationism, structuralism, "faculty," and "trait" psychology. These views had the common shortcoming of viewing personality as a mere summation of discrete parts or elements, and almost completely ignored the dynamic factor of person-to-person interrelationship.²

In the study of psychoneurosis, the importance of social relationships is recognized both in investigating possible predispositional factors, and in analyzing precipitating situations.

¹There is a growing literature indicating the interrelationship of social psychology, psychiatry, and cultural anthropology. <u>Inter alia</u> see Abram Kardiner, <u>The Individual and His Society</u>, (New York: Columbia University Press, 1939); Abram Kardiner, <u>The Psychological Frontiers of Society</u>, (New York: Columbia University Press, 1945); Ralph Linton, "Culture, Society, and the Individual," <u>Journal</u> <u>of Abnormal and Social Psychology</u>, XXXIII (1938), 425-36; Karen Horney, <u>New Ways in Psychoanalysis</u>, (New York: W.W. Norton and Co., 1939); J.S. Plant, <u>Personality and the Cultural Pattern</u>, (New York: Commonwealth Fund, 1937); Ruth Benedict, <u>Patterns of Culture</u>, (Boston: Houghton Mifflin Co., 1934) and the publications of Margaret Mead.

²Kimball Young and Douglas W. Oberdorfer, "Psychological studies of Social Processes," in Harry E. Barnes and Howard Becker, <u>Contemporary Social Theory</u>, (New York: D. Appleton Century Co., Inc., 1940), p. 388.

Adolph Meyer has referred to these social factors as "the interplay of personality functions and life experiences."¹ As to the general social character of neuroses, Gillespie has said: "Psychoneuroses are in the ultimate analysis, social disorders of individuals. They are symptomatic of a disturbance of social relationships mentally 'interjected'."²

The Problem

The problem in this study is to ascertain what the significance is, if any, of certain social background factors in the development of the social-psychological condition "combat fatigue" as herein defined. An attempt will be made through analyzing the data relative to the social backgrounds of the men of this study, to establish a recurring configuration of coincidence of factors in relation to mild, moderate, and severe combat fatigue.

¹Adolph Meyer, as quoted in R.D. Gillespie, <u>Psychological</u> <u>Effects of War on Citizen and Soldier</u>, (New York: W.W. Norton and Co., Inc., 1942), p. 36.

² R. D. Gillespie, <u>Psychological Effects of War on Citizen</u> and <u>Soldier</u>, (New York: W. W. Norton and Co., Inc., 1942), p.36.

³Karl Pearson, <u>Grammar of Science</u>, (3rd ed.; London: A. and C. Black, 1911), p. 174.

This study is not an attempt to establish predisposition, <u>per se</u>. However, predisposition may be defined in such broad, vague terms as to refer to the whole background of experience, inasmuch as one's behavior in any given situation is related to his past experience. Or, it may refer to the "behavior reserve" which one holds at a subconscious level, but which becomes a factor in his behavior only in relation to specific stimuli.¹ If defined in this all-inclusive sense, this study will, of course, deal with predisposition.

In psychiatric literature, predisposition is most frequently related to the concept of "constitutional inferiority" and is associated with objective evidence of previous maladjustment or a state of more or less constant unadjustive behavior. "Constitutional" is used in two ways: first, to refer to biologically inherited traits, tendencies, psychopathologies, etc., and second, to chronic traits, tendencies, psychopathologies, etc., which have their origin in early experiences. Constitutional, thus, is "related to factors and processes originating from the individual's inherited or ingrained endowment."² The social data used in this study can not be considered as predispositional in this sense.

An isolated, statistically represented social fact, i.e., birth position, marital status, or occupation, can be only neutral. Each social fact, however, may be <u>defined</u> in such a way by the

¹Lawrence Guy Brown, <u>Social Pathology</u>, (New York: S. Crofts and Co., 1942), p. 44.

²Richard H. Hutchings, <u>A</u> <u>Psychiatric Word Book</u>, (Utica, New York: The State Hospital Press, 1939), p. 53.

individual's unique experience as to become a part of personal disorganization, and hence, be a predispositional factor, or in such a way as to become a part of normal personal organization.

If this study finds a recurring configuration of these neutral facts in relation to mild, moderate and severe combat fatigue. then it is reasonable to believe that the factors which make up the pattern have frequently been defined in the experience of the individuals with whom this study deals in such a way as to be personality factors which are related in some way to combat fatigue. This relationship could be one of predisposition in the broad or narrow use of the term. However, these factors are not necessarily "constitutional factors." They are merely social factors in the background of experience of the individual, and unless there is objective evidence of maladjustment, they could not be considered as predispositional. The statistical data in this study may show a relationship between these factors and an existing state of combat fatigue, but can not establish objective evidence of past personal maladjustment or adjustment. The analysis of cases in the second part of this study may be more fruitful in this respect.

The working hypothesis is, then, that there are relationships between certain social factors in the backgrounds of the men in this study and the presence and degree of severity of combat fatigue. If such relationships are established between certain social factors and combat fatigue, the significance of such relationships will be dependent upon the degree and frequency of coincidence in the Pearsonian sense.

War Neurosis and Combat Fatigue

Although over-all statistics relating to amount of emotional and mental illness in the two world wars may not be comparable, it is believed that the incidence of mental illness in World War II was considerably higher than in World War I. "Neuropsychiatric battle casualties in World War I were in the proportion of 1 to 7 of the total; in World War II, 1 to 3, or roughly, 30 percent."

War provides an abundance of grossly abnormal socio-psychological situations.² Increased mechanization, accompanied by amazing speed of movement, of equipment, projectiles and communication, has multiplied the stimuli which impinge upon the individual participant. This increased stimulation is not only quantitatively greater but also its intensity has been greatly heightened. Aerial bombing and robot bombs extended the area of combat to such an extent that the areas of comparative safety, which characterized World War I, were almost nonexistent. Strecker and Appel have pointed up this contrast between the two wars and indicated the psychological consequences in World War II.

> World War I was static. There was a psychological significance to front lines and rear lines. Danger was great at the front and slight at the rear. There was more opportunity in World War I for the individual soldier to alternate periods of active combat with periods of rest at places relatively safe from the threat of destruction. The present war is mobile. Air attack, airborne invasion, and blitz tactics

¹Edward A. Strecker and Kenneth Appel, <u>Psychiatry in Modern</u> <u>Warfare</u>, (New York: Macmillan Co., 1945), p. 12.

²In this connection, Herbert X. Spiegel points out that men exhibiting tension and anxiety must be regarded as behaving normally in an abnormal situation. See his "Psychiatric Observations in the Tunisian Campaign," <u>American Journal of Orthopsychiatry</u>, XIV, No. 3, 1943, p. 383.

replace the former tug-of-war type of combat. World War II has obliterated front lines and rear lines. Civilian populations are part of the combat zone in the present conflict. They are inevitably involved in strains, tensions, anxieties, threats of destruction and actual destruction, as never before in the world's history. No one is safe, no place is secure. Constant vigilance is demanded of all zones, combatant and noncombatant. There is relatively less security both physically and psychologically

The psychological consequences of these new conditions are: 1, increased stimulation, alertness, or vigilance of the individual, resulting in a constant mobilization and tension of the organism; 2, constant threat to the individual, unrelievable anticipation, lessened security, increased fear. The surprise element is increased.¹

On the other hand, William C. Porter feels that mobile, mechanized warfare is on the whole less damaging to emotional and mental health than was the static trench-type experienced in World War I. He points out that the soldier has more action and more opportunity for aggressive expression.²

Other factors in addition to the type of warfare which are related to the variations in psychopathology in the two wars are: increased knowledge of mental illness,³ lack of positive motivation comparable to that which centered around "the war to save democracy" slogan in World War I, and the consequent reliance upon external forces such as the threat of enemy action, as a means of creating group cohesion and morale. All of these are factors which have been postulated by writers as being associated with increased emotional maladjustment. Increased knowledge of psychiatry and psychosomatic

1Strecker and Appel, op. cit., pp. 4-5.

²William C. Porter, "Military Psychiatry," <u>War Medicine</u>, Vol.2, (July, 1942), 548-549.

³William C. Menninger, "Psychiatry and War", <u>Atlantic Monthly</u>, Vol. 176, (November, 1945), 109.

medicine has not only been a factor in more frequent detection and diagnosis of mental illness, but has also influenced the classification of emotional and mental illnesses.

An aspect of increased knowledge which has received little attention is a consideration of increased general cognizance of psychological factors by the men of the armed forces. The fact that psychological and psychiatric examinations were encountered in Selective Service, at induction stations and at training establishments, and that sections of infirmaries and hospitals were designated as neuropsychiatric, created a consciousness of mental illness and psychiatrists. This consciousness was much in evidence. There was much talk of "psychos," "psychs," "nut doctors." etc.¹ Although this may have consciously stimulated some feigning of illnesses and malingering, the real danger was in the operation of these experiences subconsciously providing an escape from unpleasant or dangerous situations, and in the contagion of symptoms. These factors operated both in the training period, largely in the form of psychosomatic complaints, and aboard ship, in a somewhat different manner.²

In both wars, neuropsychiatric conditions ran the whole gamut

At Great Lakes Naval Training Center, the psychiatric survey unit, which received men who were referred by psychiatrists as a result of screening new recruits, was semi-officially known merely as "Company U." However, it was widely referred to by the personnel of the center as the "psycho company." At an amphibious training base which received men returning from sea duty for reassignment, the psychiatric interviewers were referred to throughout the camp as the "junior psychs" and there was much speculation by the men concerning shore duty and discharges. Men with some service coined quips, i.e., "Are you nervous in the service?"

²George N. Raines and Lawrence C. Kolb, "Combat Fatigue and War Neurosis," <u>Naval Medical Journal</u>, (July, 1943), p. 926.

of contemporary clinical categories. In World War I "shell shock," conversion hysteria, and psychosomatic conditions associated with the heart (effort syndrome), were the most common psychiatric diagnoses. The belief that concussion had a physical effect on the nervous system gave rise to the use of the term "shell shock." Anxiety states and hysteria were associated with a state of mental conflict. The situation was presented as a not wholly conscious conflict between military duty and the wish to escape from the danger zone without experiencing a sense of guilt which a deliberate dereliction of duty would involve.¹ Psychosomatic conditions were considered to be related to predispositional factors of innate inferiority or previous neurotic patterns. The official history of the Medical Department of the United States Army in World War I, which was published in 1929, follows the conflict theory in discussing war neurosis. The authors point out, however, that clinically, "the significant thing is that the war neuroses are essentially reactions to the varying incidents of war. . . "2

It is clearly seen that both the type of warfare and the existing state of knowledge of psychopathology were determining factors in diagnosis and in arriving at etiology in World War I. The same is true of World War II. Menninger, speaking of the second world war, says:

¹W. Ronald D. Fairbairn, "The War Neuroses: Their Nature and Significance," <u>British Medical Journal</u>, (February 13, 1943), p. 185.

²Sydney Y. Schwab, and Norman Fenton, "War Neuroses as a Medical-Military Problem," <u>The Medical Department of the United States</u> <u>Army in the World War</u>, Vol. 10, <u>Neuropsychiatry</u>, (Washington D.C.: United States Government Printing Office, 1929), Sec. 2, Ch. 5, p. 369.

By far the most common mental illness was some form of neurosis. It is a true mental illness which is almost always related to earlier forgotten experiences, and it usually occurs in those who present evidences of periodic or constant minor maladjustments in their previous life history.1

Menninger indicates that anxiety is the common basic factor. The conversion hysteria (such as partial paralysis or loss of sight), of the first world war associated with the self-preservation conflict situation, was rare in World War II.

> In World War II, the preponderant psychoneuroses are anxiety reactions. Their clinical manifestations would seem to indicate that much deeper emotional recesses [than those associated with conversion hysteria in the first world war] have been penetrated. Catastrophic nightmares occur, in which terrifying battle experiences are relived with startling intensity and displays of marked fear. There are startle reactions in which sudden accidental sounds, subconsciously reminiscent of battle sounds, call forth exhibitions of severe generalized trembling. Guilt feelings and depressions are common; survivors are tortured by thoughts that either through omission or commission, they have participated in the death of fellow soldiers, perhaps friends.²

Effort syndrome and such psychosomatic heart conditions have not been prevalent in World War II,³ while gastrointestinal disorders have become the predominant somatic complaints.⁴

Just as "shell shock" came into existence in World War I, "combat fatigue" is a product of World War II. With these exceptions, psychopathic manifestations in the two wars fitted well into established clinical categories of the times.

As to etiology in World War II, there is considerable

¹Menninger, <u>op</u>. <u>cit</u>., p. 109.

²Strecker and Appel, <u>op</u>. <u>cit</u>., p. 19.

³Maxwell Jones and R. Scarisbrick, "Effort Intolerance in Soldiers." War Medicine, Vol. 2, (November, 1942), 901-911.

⁴Strecker and Appel, <u>op</u>. <u>cit.</u>, p. 19.

agreement among psychiatrists concerning the psychoneuroses in general. Predispositional factors are stressed and psychoanalytical concepts are utilized in analysis. Those who stress predispositional factors note exceptions, and a few minimize predisposition.

William C. Menninger, as we have seen, in speaking of neuroses, says that they are "almost always" related to earlier forgotten experiences.¹

Strecker and Appel sum up their observations thus:

The authors' observation of patients with psychoneuroses in hospitals in the U.S., give the impression that the great majority had predisposing instabilities. It is their impression that predisposing instabilities contribute to war neuroses in the majority of cases, but that if stresses are prolonged, and intense enough, soldiers with normal, adequate personalities can break. Figures in various studies differ as to the relative importance of predisposition and stress. One of the authors, who served with the U.S. Army in France during World War I, feels that the previous condition of the personality is the single most important factor determining whether a soldier will break or not. However, there is a limit to each individual's endurance."

Fairbairn, in the British Medical Journal,³ states that there is fairly general agreement among psychiatrists that "so far as symptomatology is concerned, the war neuroses possess no distinctive features differentiating them sharply from the various psychoneurotic and psychotic states which prevail in time of peace." He also states that when investigation is "sufficiently painstaking" it is "rare to find a case in which evidence of pre-existing psychopathological characteristics can not be detected in the previous history." Fairbairn considers

> ¹Menninger, <u>op</u>. <u>cit</u>., p. 109. ²Strecker and Appel, <u>op</u>. <u>cit</u>., p. 15. ³Fairbairn, <u>op</u>. <u>cit</u>., p. 183.

the traumatic war experiences as only precipitating factors. Furthermore, he holds that "infantile dependence" is the "ultimate factor predisposing to all psychopathological developments." Separation-anxiety is regarded as a product of infantile dependence. "Not only is separation-anxiety invariably present in war neurotics, but it is the only single symptom that is universally present."¹

Fairbairn considers Freud's "mass anxiety and panic" to be essentially a manifestation of separation anxiety. Furthermore, he says that this phenomenon, panic, will affect all (or nearly all) the members of a military group simultaneously.³ Thus it would seem that predisposition is of little significance, but he hastens to point out that:

> The panic-stricken condition of soldiers belonging to an army which has collapsed in the field must accordingly be regarded as one of transient war neurosis, occurring under special conditions in individuals who are preponderantly "normal." The difference between the state of such soldiers and that of soldiers suffering from a frank war neurosis is then seen to lie in the fact that, whereas in the case of the "normal" soldier acute anxiety occurs only when the

1<u>Ibid</u>.,p. 184. ²<u>Ibid</u>., p. 185. ³<u>Ibid</u>.

bonds uniting the group as a whole are dissolved, in the case of the neurotic soldier separation-anxiety may occur even when the bonds uniting the group as a whole remain intact.^{1,2}

Emmanuel Miller holds to the conflict theory. The conflict, as he pictures it, is between the "better self" and the "insistent demands of an instinct which demanded either an escape from danger, or an aggressive outburst." The "instinct" is evidently that of self preservation. He points out that where the "natural self" could find a way out, the soldier was able to solve his conflict.³

Thus Miller sees a kind of biological adaptation in every war neurosis, but points out that it is an adaptation which is closely interwoven with "some of the highest characteristics which man can exhibit." This apparently is a conflict between what he calls conscience, on the one hand, and what he calls instinct on the other. And this he sees as the "central motive around which all clinical manifestations seem to collect."⁴

In the first world war, psychopathology was dominated by the organic point of view. Emphasis was placed upon "shock" and "fatigue" which were related to structural, neurological changes. The conflict theory was basically instinctivistic. At the beginning of the second world war the knowledge of psychopathology in war was not

^{1&}lt;u>Ibid</u>., p. 185.

²Galdston, in commenting upon gains to psychiatry which have come out of the war, emphasizes the "discovery" of the importance of morale to the effective operation of the individual and the group. See Iago Galdston, "The New Life Savers," <u>Survey Graphic</u>, XXXIV, (June, 1945), 300.

³E. Miller, (ed.), <u>The Neuroses in Mar</u>, (New York: Macmillan Co., 1940), p. 112.

^{4&}lt;u>Ibid.</u>, p. 118.

far advanced from the point where it had been at the end of the first world war. However, psychiatric theory had been greatly elaborated and the practice of psychiatry had expanded rapidly in the period between the two wars.

World War II, as has been pointed out above, presented a situation which varied in many respects from the first world war. Psychiatrists were the first to recognize this and methods of identification of illness, diagnosis, and treatment were modified. New concepts, theory and techniques, derived from the contemporary state of knowledge of human behavior, were incorporated into their thinking and used to meet the extraordinary needs in time of war.

CHAPTER II

THE SITUATIONAL APPROACH

There is an apparent division of thought in regard to the etiology of war neuroses. Possibly it is largely a matter of emphasis. Some authors cling to a biologically oriented point of view which emphasizes predisposition; others discount organic factors and predisposition and emphasize precipitating situations and stress factors.

Psychodynamics

Among the contemporary writers who are less concerned with innate biological factors, or with predisposition <u>per se</u>, are Grinker and Spiegel. They recognize that personality factors and previous emotional disturbances are important in the backgrounds of many men who develop war neuroses, but these factors are not apparently considered predispositional in the usual sense, but are seen to be related to the type of pathological reaction. They are used in analysis and in understanding of conditions which develop under stress of combat. These authors point out that "the all prevailing realities of the battle scene with its atmosphere of constant menace and insecurity, tend to obscure individual differences of personality and to dim-out reactions that are wholly or in part, based on previous personality trends. . . . The universal stresses of combat tend to reduce all individuals to a common denominator, which

we have called the combat personality."1

In discussing the psychodynamics of war neuroses as observed in the Army Air Corps, the authors indicate the great significance of the group, leadership, morale, mother-love, and self-love.

> The status of the average combat crewman at the beginning of his combat tour can be schematically summarized in the following way: most of his love and interest is devoted to his group and is satisfied as long as he remains in contact with it. The super-ego is identified with that of the group and will return some of this love to the ego as long as he fulfills the group ideals. A smaller portion is devoted to himself, but this is satisfied by the care and interest the group shows in him. Another small part is devoted to friends, family ties and interests at home. This last remains unsatisfied except in fancy, and is given up on a temporary basis, though not without pain.²

These factors vary with individuals and groups. Past emotional experiences and relationships, the ego-ideal which has been developed, the degree of identification and transference which occurs, all these and other psychological mechanisms at various levels of consciousness, make for great variation in the individual's level of emotional threshold. Long periods in combat, physical illness and poor leadership, are also factors which lower the threshold. As Grinker and Spiegel point out, "initially, they were all healthy, vigorous, aggressive young men, who had been stamped with the same imprint by months of training and combat activity."³ The authors make this point with reference to cases which they have analyzed to illustrate "the neurotic reactions to combat stress."

Roy R. Grinker and John P. Spiegel, <u>Men Under Stress</u>, (Philadelphia, Pa.: Blakiston Co., 1945), pp. 118-119. ²<u>Ibid</u>., pp. 123-124. ³<u>Ibid</u>., p. 119.

There is apparently a competition of interests which sets up an ego conflict as illustrated in the following paragraph.

> For all these reasons, no matter how much affection was originally devoted to the group, continued exposure to combat and self depletion produces an appreciable withdrawal of love which is returned to the self. The process may be long-drawn-out or may occur with dramatic suddenness; it is largely unconscious, and, most of all, it is incomplete. Though a large portion of interest may be reinvested in the self, still a considerable amount remains attached to the combat group. Thus, internal competition of interest is set up which is the source of the primary conflict of combat men: the fate of the group versus the fate of the individual. When the opposing forces of this conflict become established, the stage is set for the development of anxiety. A sufficient concentration of interest and love is now attached to the ego so that the possibility of injury or death can arouse the strongest emotional reactions, and these reactions themselves then come into conflict with the portion of the personality still strongly attached to the combat group.¹

Anxiety develops and "thus the central problem in the neurotic reactions to combat remains that of anxiety and its relation to a regression of the ego functions."² The whole process, according to the authors, seems to be something like this: absence of safety, followed by ego conflicts, giving rise to insecurity and anxiety, which generate dependency and transference, which are resolved by regression,³ which leads to feelings of inferiority, followed by overcompensation, which may stimulate guilt feelings and further regression.

Gillespie lays great stress on the social origins of war

¹<u>Ibid</u>., p. 126. ²<u>Ibid</u>., p. 140.

³<u>Ibid.</u>, p. 249. Here the authors point out that regression is actually the less drastic of two evils. The person can either deny the presence of reality and sever all contact with it, or he can regress and seek childhood securities which may still be satisfied by the group, but when he returns home, the regression becomes obvious. neuroses. He states that "the essential pathology of psychoneurotic reactions is a social psychopathology,"¹ and proceeds to point out that it is the study of this social psychopathology which makes psychiatry a social science. It should be pointed out that he uses the term social as referring to psychological factors which have a social origin, i.e., "The psychoneurotic reactions in this view are produced and sustained by psychological constitutions, either internal or external or both. . . ."² Gillespie recognizes predisposition in the form of constitutional factors, both of the hereditary and the acquired type, but neither of these seems to be as important to him as environmental stresses and interpsychological factors.

Most of the authors cited make no clear-cut distinction between "war neurosis" and "combat fatigue." Some do not use the term "combat fatigue." The terms "battle fatigue," and "combat exhaustion" have been used in connection with army experience. "Operational fatigue" and "flying fatigue" have been used by the air forces, and "combat fatigue" and "operational fatigue" have been used by the Navy. Some psychiatrists use the classification "traumatic neurosis" to include some or all of these fatigue states.

In any discussion of these so-called fatigue or exhaustion states there is considerable agreement on several points. First, that physical fatigue is not the primary etiological factor; second, that they are closely related to the stress of operational and combat experiences; third, that they are related to group dynamics, leadership and morale; fourth, that they are frequently related to traumatic

> ¹Gillespie, <u>op</u>. <u>cit</u>., p. 36. ²<u>Ibid</u>., pp. 36-37.

combat experiences; and fifth, that they occur in both normal and predisposed personnel. There is also considerable agreement as to the syndrome.

Grinker and Spiegel, in speaking of "operational fatigue,"

say:

Operational fatigue and other terms have been loosely used to cover a wide variety of reactions occurring in men engaged in combat flying, including the neuroses. They place the etiological emphasis on occupation and environment, thus having an advantage for officers who would much rather hear that their men have "operational fatigue" than that they have anxiety states. All the conditions described under the term of "operational fatigue" can best be described as showing definate physical, mental and emotional symptoms, which develop in normal and predisposed subjects undergoing the stress of operational flying. In the previously normal individual it may be considered as an occupational disturbance, whereas in the predisposed or neurotic individual operational flying acts as a trigger mechanism in activating a previously dormant neurosis. This situation is entirely analagous to the precipitating incidents of traumatic neuroses in civilian life.

The most frequent symptoms in returnees at the time of hos-

pitalization were:2

Restlessness Irritability and aggressive behavior Fatigue on arising and lethargy Difficulty in falling asleep Subjective anxiety Easy fatigue Startle reaction Feeling of Tension Depression Personality changes and memory disturbances Tremor and evidences of sympathetic overactivity Difficulty in concentrating and mental confusion Increased alcoholism Preoccupation with combat experiences Decreased appetite Nightmares and battle dreams Psychosomatic symptoms Irrational fears (phobias) Suspiciousness

¹Grinker and Spiegel, <u>op</u>. <u>cit</u>., p. 209. ²<u>Ibid</u>., p. 210.

It was decided that certain minimal symptoms, as evidenced by mild degrees of the various complaints and symptoms listed above, could be considered as normal. The effects of combat and overseas life are universal in producing mild manifestations of anxiety in almost everyone.¹

There was an attempt in the Army Air Forces to classify cases according to severity: minimal, moderate and severe.² (This classification was very similar to the categories, mild, moderate and severe, which were used by the Navy. See page 32). However, the authors suggest two classifications: "(1) The normal and expected reactions which recede without therapy, and (2) the pathological state requiring more or less definitive psychiatric treatment."³

Grinker and Spiegel present the results of a special study of approximately 300 officers and 200 enlisted men, relative to the relationship between predisposition and stress and the correlation of these factors with the severity of the illness. Their findings were: "that no correlation could be determined at this distance between the apparent severity of a soldier's missions and the severity of his symptoms. . . . There was a clear-cut correlation between previous personality trends and the <u>type</u> of neurosis." ⁴

They conclude that "there is rarely a single psychological trend manifested in any large group of patients . . . [but] all the

¹<u>Ibid</u>., p. 211. ²<u>Ibid</u>., p. 212. ³<u>Ibid</u>. ⁴<u>Ibid</u>., p. 214.

disturbances are regressive in a psychological sense." The authors, for the purposes of description and clarification of psychodynamics, have divided patients into five groups.¹

- 1. Passive-dependent states
- 2. Psychosomatic states
- 3. Guilt and depression
- 4. Aggressive and hostile reactions
- 5. Psychotic-like states

Abram Kardiner,² writing before World War II, places the large majority of men suffering from war neuroses in the category "traumatic neurosis." His description of a traumatic neurosis makes it appear very similar to what others now call combat fatigue. "The common features are: (1) a highly characteristic dream life; (2) certain constant inhibitory phenomena; (3) acoustic hypersensitivity; (4) irritability, and (5) a tendency to outbursts of aggression."³

As to predisposition, he considers first, stammerers, tiqueurs, and persons who have a history of convulsive phenomena, as likely candidates for traumatic neuroses. Secondly, he mentions "the persons who are 'fainty'; those who cannot stand the sight of blood; those who have no tolerance for physical pain; those who have a low cardiac reserve; and finally, those with certain chronic forms of disturbance of the autonomic nervous system, such as gastric ulcers and mucous colitis,"⁴ as being predisposed. However, he would give this second group the "benefit of the doubt," and referring to both groups, he

1<u>Ibid</u>., p. 211.

²Abram Kardiner, "The Neuroses of War," in Silvian S. Tomkins, <u>Contemporary Psychopathology</u>, (Cambridge: Harvard Univ. Press, 1943), p. 197.

> ³<u>Ibid</u>., p. 195. ⁴<u>Ibid</u>.

continues:

I set only a slight value on these criteria, for anyone may have a traumatic psychosis. In fact, I should go even further and say that everyone exposed to war has a mild form of traumatic neurosis, which, however, may not become stabilized so that the patient may not organize a new adaptation on the basis of this transitory reaction. I have often observed the most severe types of traumatic neuroses in soldiers with none of the aforementioned stigmas, soldiers who had great powers of endurance, and who distinguished themselves in service as the bravest of men.¹

J. M. Murray, writing in <u>Psychosomatic Medicine</u>, June, 1944, attempts to differentiate operational fatigue from psychoneurosis on the basis that psychoneurosis denotes symptoms which are derived from unconscious conflicts arising in early childhood. The author does not indicate whether or not he considers this predisposition. However, he considers operational fatigue, at least in the early stages, to be basically dependent on recent situations, and that it has not become irreversibly bound to earlier unresolved conflicts.²

When Menninger speaks of the most common mental illness in World War II³ as "some form of neurosis . . . a true mental illness," which is predispositional, he is not speaking of combat fatigue, for he continues by pointing out "perhaps there is one new mental illness which has come out of the war. It has been variously termed 'combat exhaustion', 'combat fatigue', or 'operational fatigue'. . . . These symptoms vary widely, but always were related to stress of combat. In all cases great stress has acted upon <u>what was presumably a normal</u> personality."⁴

²Referred to by Grinker and Spiegel, <u>op</u>. <u>cit</u>., p. 208.

³There is little doubt that forms of "nervous" and emotional reaction, other than combat fatigue, were the most common forms of mental illness. Combat fatigue made up only a relatively small part.

⁴Menninger, <u>Atlantic Monthly</u>, op. cit., p. 110. (underlining by the writer.)

^{1&}lt;u>Ibid</u>., p. 195.

He goes on to point out that on the basis of his experience, the average ratio of incidence of combat exhaustion (official Army designation), to physically wounded was one to five, "but under superb leadership, it was only one in ten." Menninger concludes that there is no doubt that the chief causal factor in most instances was the psychological trauma. Fatigue alone, he says, may account for from three to five percent of the casualties. He divides the entire combat exhaustion group into two subgroups: those who were "previously adjusted" and those who were previously experiencing "marginal mental health."¹

Strecker has placed much emphasis upon the "American moms" and the resultant immaturity of the men in the service. It should be pointed out that he is speaking of psychoneurotics in general. Early childhood experiences and the resultant dependence in adolescence and adulthood is a constitutional factor in the sense of ingrained emotional habits. He relates it particularly to psychosomatic conditions, but he does not directly relate it to combat fatigue.²

Combat Fatigue Distinguished from "War Neurosis"

There seems to be an increasing number of men who are making a distinction between war neurosis in the generic sense and combat fatigue. "The present war more than any other contemporary phenomena, has directed attention to the importance of the precipitating situation

1<u>Ibid</u>., p. 11.

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²Edward A. Strecker, "What's Wrong with American Mothers?", <u>The Saturday Evening Post</u>, (October 26, 1946), p. 14.

in neurotic breakdown," says S. Kirson Weinberg.¹ He points out that although these breakdowns have frequently been related to faulty childhood traits, the growing evidence shows that a certain portion of normal and healthy soldiers are also affected. In his study of 276 enlisted men in the Army Ground and Service Forces, who had been returned to the United States for additional treatment, he found three "neurotic patterns." (1) anxiety, (2) the mixed---anxiety and hysteria---and (3) hysterical syndromes."²

He reports that 56.5 percent of the cases under consideration fell within the anxiety group, which he says is "called such other names as 'combat exhaustion', nervous exhaustion, combat fatigue, operational fatigue---though fatigue is not the essential component---it is identified as the 'combat syndrome of the present war'."³ The most frequent symptoms were: "confusion, apprehension, impaired attentive facility, irritability, restlessness, apathy, aversion to noise, battle dreams and nightmares."⁴

Meyer Maskins points out that "the vast quantity of early war literature attributed neurotic collapse to 'predisposition', 'inferior heredity', 'taint'. Yet it was soon evident that substantial, reliable, untainted soldiers could disintegrate."⁵

¹S. Kirson Weinberg, "The Combat Neuroses," <u>American Journal</u> of <u>Sociology</u>, Vol. 51, (March, 1946), 465.

²<u>Ibid</u>., p. 466. ³<u>Ibid</u>. ⁴Ib<u>id</u>.

⁵Meyer Maskins, "Psychodynamic Aspects of the War Neuroses," <u>Psychiatry: Journal of the Biology and Pathology of Interpersonal</u> <u>Relations</u>, IV, No. 1, (February, 1941), p. 103. As quoted by Weinberg, <u>op. cit.</u>, p. 468.

Among those psychiatrists who make a clear distinction between combat syndrome and other psychoneurotic illnesses is Daniel Blain. "The diagnosis [combat fatigue], should be limited to those patients having a history of previous good adjustment, in whom the onset followed combat in the sense of contact and battle with the enemy, and who showed objective evidence of recoverability. Men with nervous reaction not fulfilling these criteria are considered to be undergoing recurrences of previous psychoneurotic disorders."

Writing in the <u>Naval Medical Journal</u> of July, 1943, George N. Raines and Lawrence C. Kolb seem to make the same distinction as made by Blain between combat fatigue and other psychoneurotic conditions, and have developed criteria by which differential diagnoses can be made.² The article is based largely upon the authors' experience at Norfolk Naval Hospital, Portsmouth, Virginia.³

The authors point out that symptoms of traumatic neurosis, which they consider synonomous with combat fatigue, "occur inexplainably in men who, by all concepts, are well within the limits of normal personality."⁴ They state that it is their belief that the psychological mechanisms associated with "traumatic neurosis"

¹Daniel Blain, "Neuropsychiatric Aspects and Treatment of Convoy and Torpedo Casualties," <u>Manual of Military Psychiatry</u>, eds., Harry C. Solomon and Paul I. Yakovlev, (Philadelphia: W.B. Saunders Co., 1945), p. 635.

²Raines and Kolb, <u>op</u>. <u>cit</u>., p. 923.

⁵Dr. Raines is considered an authority on combat fatigue in the Navy, and had considerable direct and indirect influence on psychiatric work, particularly in the Norfolk area which is the area where the writer of this study had his experience and from which the data were collected. The writer, however, was not under the command of Dr. Raines, nor was he connected with the hospital.

⁴Raines and Kolb, <u>op. cit.</u>, p. 925.

are so fundamental as to be present in all men. Speaking of war neuroses in general, excluding combat fatigue, they say: "The ordinary psychiatric problems of peace time occur regularly in the setting of war and take coloring from the combat situation, usually in the form of the cardinal symptoms of 'war neurosis'. These cases must be set aside in their own group; they are irrecoverable to the military service."¹ The authors consider this group to be predisposed and say that "in handling them, the feeling is always present that the patient would have reached his current degree of disability under almost any environmental condition. It is difficult to classify them as 'war neuroses'...."

The characteristic symptoms of traumatic neurosis (combat fatigue), according to Raines and Kolb, are: repetitious catastrophic nightmares, startle reaction, and subtle personality change. These are considered to be essential to the diagnosis. Frequently they found guilt reactions and depression accompanying these symptoms.

In the etiology of combat fatigue, it is pointed out that the type of personality is chiefly of importance in determining the severity of the neurotic symptoms under a given stimulus. Two personality types, they say, are prone to succumb.

> These are the emotionally and intellectually immature persons, with a great deal of dependence, and at the other end of the scale, the fully mature, independent, older men. While there is no direct correlation between chronological age and emotional maturity, the personality usually associated with age below eighteen, and above 38, comprise this group which appear to be particularly susceptible to the combat situation. . . . Of more direct importance in the production of

²<u>Ibid.</u>, p. 926.

¹<u>Ibid</u>., pp. 925-926.
symptoms is the setting of interpersonal relationships in which the traumatic event occurs.¹

From the patients' own stories of the precipitation of com-

bat fatigue, the authors have found the following four factors to be of importance in interpersonal relationships.

- 1. The patient entered combat without faith and confidence in his leader. . . .
- 2. The patient was insufficiently trained, did not know his job or his ship as thoroughly as he should....
- 3. Patient entered combat surrounded by new shipmates, men who were comparative strangers to him, and whose conduct under fire he had not had time to estimate. . . .
- 4. The patient experienced the combat situation when he was suffering with marked physical fatigue.²

Raines and Kolb have, from their long experience with combat fatigue, formulated rather definite criteria for diagnosis. They state that for their purposes they have established four "arbitrary criteria" for the diagnosis of "combat fatigue."

> 1. A stable personality prior to appearance of the traumatically determined emotional disturbance.---There should be no objective evidence of maladjustment in childhood or adolescence. Walking, talking, habit forming, should have occurred at about the usual age. The school and work record should indicate stability. Normal heterosexual adjustment should have been reached. . . . Cultural differences of various parts of the country must be recognized. . . . 2. A combat experience of sufficient intensity to render it feasible as a precipitating agent .--- The mere threat of combat is not enough to produce neurotic symptoms in men other than those specifically predisposed, i.e., the psychoneurotics. . . . there is no direct relationship between the severity of the experience and the severity of symptoms. Here the personality of the individual undoubtedly contributes to the picture, in the amount of reaction produced by a stimulus. The environmental setting should be examined with particular care, with special reference to certain contributing factors such as what did the patient think of his officers, how well did he know his job, how well did he know his shipmates, what were his relationships with the human beings around him and his ship, and how much did he suffer with physical fatigue.

¹<u>Ibid</u>., p. 930,

²<u>Ibid.</u>, p. 930-932.

3. <u>Objective evidence of subjective anxiety</u>.---The patient suffering with war neurosis does not discuss his combat experience with equanimity. He sweats, he trembles, he flushes or pales, he swallows frequently, he smokes incessantly. 4. <u>Recoverability</u>.---It is our belief that all true "war neuroses" will recover in a comparatively short period of time with even relatively superficial therapy. When symptoms persist in disabling degree beyond two months under treatment, either the treatment is not adequate, or the psychoneurosis is not simply "combat fatigue" and has its roots in a deepseated emotional conflict which long antedated the traumatic experience.

They conclude:

It is extremely difficult for those accustomed to working with psychoneuroses to consider the "war neurosis" as delineated herein, a true neurosis. The occurrence of psychoneurotic symptoms in an otherwise stable and nonneurotic personality is a remarkable and striking phenomenon, one which will bear careful study and observation. . . . The universality of the picture, the stereotype of the symptom response, the extremely shallow depth of the uncomplicated cases, the absence of previous marked emotional dis-order in so many victims of "war neurosis;" "traumatic neurosis," "traumatophobia," all suggest the alliance with classical neuroses which we do not believe exists directly. It has been suggested that the term "combat fatigue" be applied to the uncomplicated syndrome. This title carries with it no connotation of emotional instability or of future recurrence, and would seem to be the best of the names suggested so far, although actually the fatigue of combat is only one of several factors involved in the production of the symptoms.²

Grinker and Spiegel criticize Raines and Kolb's use of the concept "stable personality" on the grounds that there is no such state as normality. Stability is not an absolute, but rather it is a dynamic, highly individualized characteristic.

It is true that Raines and Kolb have left themselves exposed to this kind of criticism. However, operationally, if there is no objective evidence of instability, the individual may be considered relatively stable.

> 1<u>Ibid</u>., p. 938-929. 2<u>Ibid</u>., p. 933.

The use of the phrase "combat experiences of sufficient intensity" is likewise criticized by Grinker and Spiegel as not being objective. They also point out that there may be no "objective evidences of subjective anxiety" and neither do they like the use of "recoverability" as a criterion.¹

These criticisms are sound, but Raines and Kolb state, in the first paragraph of the article under consideration, that the purpose of the article is to give the "medical officer of general training" some information which "may be applied directly to these problem cases "² Considered from this point of view, their criteria would seem to be operationally useful and valid.

Apropos of the entire question of the etiology of combat fatigue, is the work of Masserman in producing neurosis experimentally in cats. These animals exhibit symptoms of anxiety, phobias, startle reactions and hypersensitivity"when confronted with any stimuli in the modality associated with its 'traumatic experience', . . . The most trenchant examples of similar reactions in the human being occur in the so-called 'acute war neuroses'. . . . "³

The work and opinions of a number of contemporary psychiatrists, including men who have had much experience in the Army and Navy in World War II, have been presented. This study is concerned primarily with combat fatigue. Combat fatigue will be considered as a psychiatric condition which is characterized by a rather distinctive

¹Grinker and Spiegel, <u>op</u>. <u>cit</u>., pp. 353-354.

Raines and Kolb, pp. cit., p. 923.

³Jules H. Masserman, <u>Principles of Dynamic Psychiatry</u>, (Philadelphia: W.B. Saunders Co., 1946), pp. 126-127.

syndrome, which differentiates it from other neuroses. The term "Combat fatigue" will be used to designate this syndrome. This is the official designation of the Navy Medical Department.

Combat Fatigue Defined

Combat fatigue, as used in this study, is a personality disorder which varies in degree of disorganization from minimal personality deviations to near-psychotic conditions, but regardless of the degree of severity, the same identifying syndrome is in evidence. The symptoms are: repetitious catastrophic nightmares, startle reaction, a subtle personality change, usually regressive in nature. (irritability and aggressive behavior being its most common expression). Anxiety, guilt feelings and depression may be present in some degree. Tremors of the hands and flushing or paling of the face, and excessive sweating are common. Furthermore, this syndrome develops in men of various normal personality types and is not usually related to predisposition or constitutional inferiority. An emotionally traumatic combat experience or series of experiences involving some degree of group disorganization or disintegration is the precipitating situation. The illness is largely situational and recoverability is good.

Captain Francis J. Braceland, speaking before the 102nd annual meeting of the American Psychiatric Association in Chicago, in May, 1946, said: "We are not sorry in retrospect that we used the term [combat fatigue], we still believe the condition was a clinical entity. . . ." See "Psychiatric Lessons from World War II," <u>The</u> <u>American Journal of Psychiatry</u>, 103, (March, 1947), 592. Also, it is interesting to note that the Navy Bureau of Medicine and Surgery did not classify combat fatigue under the heading "diseases of the mind," which included constitutional psychopathic inferiority, personality disorders, psychoneuroses and psychoses. Combat fatigue is listed under the class "miscellaneous." See Bureau of Medicine and Surgery, Medical Statistics, Vol. 2, No. 10, p. 31.

This definition follows closely the ideas of Raines and Kolb. These are the criteria which were established by observation and study in the Norfolk area. The writer has observed these symptoms in hundreds of returnees, and has seen them illustrated by thorough socialpsychiatric histories and in clinical situations.

The Navy set up the nosologic categories of mild, moderate and severe combat fatigue as an operational classification. The difference between these groups is one of degree of severity of the symptoms. The nosologic group determined the disposition of the personnel so classified. Men diagnosed mild combat fatigue were permitted to enter the training (retraining) program; those diagnosed moderate combat fatigue were given six months shore duty, in their home areas if possible; those diagnosed severe combat fatigue were hospitalized for further treatment and disposition.¹

CHAPTER III

THE MEN

Navy Selection and Classification

The men of the Amphibious Force, like all of the men in the Navy, had either enlisted or were brought into the Navy through Selective Service. One can only speculate on the reasons for voluntary enlistment. 1 Some, no doubt, preferred to serve in the Navy and enlisted in order to avoid Selective Service and the possibility of duty in the Army. Many saw something romantic in the Navy, which they could not visualize in the Army. Others were attracted by the pre-war and war-time publicity of the recruiting division. The Navy had a well publicized training program. They emphasized their training facilities and pointed out that in the Navy "every man is a specialist in his rate." Also, a large proportion of Navy enlisted men were given petty officer ratings at the time of enlistment or at the termination of a training period. This resulted in better pay for enlisted men in the Navy than in the Army. Possibly many men felt that in the Navy they would avoid close personal contact with the enemy, and this may have been a factor in their choice. Many men have told the writer that they thought they would have better food and more comfortable living conditions aboard ship than they would have had in the Army.

¹In January, 1943, the Navy began receiving men through Selective Service. Prior to that time the Navy depended solely upon voluntary enlistments.

The Navy, it should be recalled, enlisted boys seventeen years of age, which resulted in the Navy having a larger proportion of its personnel in the lower age groups than was true of the other branches of the service. In July, 1944, 34.1 percent of the men in the Navy were under 20 years of age, whereas only 11.7 percent of the Army and 29 percent of the Marine Corps were that young.¹

All the men were enlisted into the Navy and were processed in the same manner. In the process of classification some were assigned directly to the Amphibious Force; others were assigned to special training establishments and later were transferred to the Amphibious Force.

The first step upon arrival at the recruit training center was a physical examination which included a brief examination by a psychiatrist. This examiner was a member of the staff of the psychiatric survey unit.²

The opsychiatric survey unit consisted of a number of psychiatrists, a psychologist, enlisted men to aid in the processing and the psychiatric board, which was later known as the aptitude board. The aptitude board consisted of one line officer, one medical officer of the regular Navy, two psychiatrists and one psychologist.³ The aptitude board made the recommendations for the disposition of all men referred to the unit.

¹Bureau of Naval Personnel, <u>Information Bulletin</u>, (July, 1944), p. 40.

²On January 2, 1941, the Surgeon General inaugurated a definite neuropsychiatric procedure to be followed at all naval training stations. See Forrest M. Harrison, "Psychiatry in the Navy," <u>War</u> Medicine, Vol. 3, (February, 1943), p. 122.

³Robert J. Lewinski, "Psychological Services in the Medical Department," <u>Naval Medical Journal</u>, (January, 1943), pp. 137-138.

The psychiatric survey unit received referrals from the psychiatrist who briefly examined recruits at the time of their physical examination, soon after their arrival at the receiving station. This examination took approximately three minutes and was usually conducted with the recruit standing, naked, before the psychiatrist. The psychiatrist took note of the man's general appearance, movement. "nervous tension," excessive perspiration, and all other observable physical and emotional pathology. At the same time, he asked the patient rather routine questions. Examples of the questions usually asked are: How old are you? How far did you go in school? Did you ever faint? Did you ever walk in your sleep? Have you ever had any kidney trouble? How often do you have headaches? Who taught you to masturbate? If there is some suspicion of social maladjustment, the psychiatrist would ask: "Have you travelled much? How did you travel? (or) Now, son, what was the real reason they had you in court that last time?"

This procedure is more properly a screening than an examination. If there were symptoms of maladjustment, the man was referred to the psychiatric survey unit for a thorough psychiatric examination.²

Each man referred to the psychiatric survey unit was interviewed by two or three psychiatrists, and if mental deficiency was indicated, he was also interviewed and given psychometric tests

¹C.L. Wittson, C. H.I. Harris, W.A. Hunt, and Philip Solomon, "Neuropsychiatric Examination of Recruits," <u>War</u> <u>Medicine</u>, Vol. II, (November, 1942), 945-947.

²In this connection, Wittson observed that in civilian life the physician's motivation is the positive one of healing, but in the Navy this motive is entirely secondary to the elimination of unfit persons before they get into a position where they may cause harm to themselves and others. <u>Ibid</u>., p. 945.

by the psychologist. The psychiatrists' notes were summarized and a recommendation was made by the aptitude board. The disposition of cases was: to duty, to trial duty (to be seen again), hospitalization, or inaptitude discharge from the naval service. On the basis of 300 cases selected at random at Great Lakes, Lewinski gives the reasons for referral from the screening process to the psychiatric survey unit at Great Lakes Naval Training Center, as shown in Table 1.

TABLE 1

Reason	Number of Cases	Percent
Inferior school record and suspected men-		
tal deficiency	180	60.0
Low general classification test scores	21	7.0
Dull or peculiar appearance	20	6.7
General maladjustment (drug addiction,		
inability to learn, general inaptitude,		
nostalgia, insolence, uncleanliness,		
malingering, etc.)	20	6.7
Somatic complaints	17	5.6
Prisoners (referred to determine mental		
status)	12	4.0
Enuresis	9	3.0
Emotional immaturity and instability	6	2.0
Speech defects	3	1.0
Miscellaneous (peculiar mannerisms, habit		
spasms, tremors, masturbation, unre-		
sponsiveness, etc.)	12	4.0
Total	300	100.0

REASONS FOR REFERRAL¹

The writer was unable to obtain data relative to the number of men discharged for psychiatric reasons at Great Lakes, but the

Lewinski, op. cit., p. 138.

number ran into the hundreds every week for a long period of time during the war.¹ Wittson, <u>et al</u>, in a study of 600 consecutive cases at the Naval Training Station, Newport, Rhode Island, indicate the incidence of types of neuropsychiatric unfitness discovered in the psychiatric survey unit. Their results are shown in Table 2. They point out that before December 7, 1941, about four percent of the recruits were eliminated by this process and after the outbreak of the war, "the percentage has risen slightly" He also says that 90 percent of the rejections at this station were through the survey unit.² It should be kept in mind that these men had all previously been screened at recruiting stations and/or by Selective Service.

TABLE 2

Category	Percent of Total Cases
Nontol doficionor	22
Constitutional psychopathic state	22
(and inferiority)	2 6
Neurologic disorder	24
Psychoneurosis	8
Psychosis	5
Illiteracy	4

PERCENTAGE INCIDENCE OF TYPES OF NEUROPSYCHIATRIC UNFITNESS IN SIX HUNDRED UNSELECTED CASES³

²Wittson, <u>et al</u>, <u>op</u>. <u>cit</u>., p. 950. ³<u>Ibid</u>.

¹The writer worked for three months in the psychiatric survey unit, Great Lakes Naval Training Center, in 1943, and had an opportunity to study the trends.

Following the physical and psychiatric examinations, the recruits were assigned to "boot companies." All companies, soon after formation, reported to a classification unit for testing. The battery of Navy Standard Tests was administered. These tests included: the General Classification Test, a reading test, a test of arithmetical knowledge, a test of mechanical aptitude, a test of spelling and clerical aptitude, a test of aptitude for radio code, a test of mechanical knowledge, and a test of electrical knowledge.¹

The testing was conducted in a mass situation. At Great Lakes, the tests were administered to groups of from 500 to 2000 men at one time. Each man's score was recorded on his Qualifications Card. The cards were forwarded by companies to the classification and selection units and the men were called up for personal interviews.

The testing and interviewing were done by Petty Officers with the rating of Specialist (Classification).² In the interview, additional information was entered on the Qualifications Card. Civilian occupational experience was described and designated in accordance with the <u>Dictionary of Occupational Titles</u>. Also, data concerning education, recreational interests, special skills, and evidence of leadership ability, as well as the usual personal data, were recorded. The interviewer, on the basis of this information,

¹For information on the development of psychological tests in the Navy, see C.M. Louttit, "Psychological Examining in the U.S. Navy; a Historical Summary," <u>Psychological</u> <u>Bulletin</u>, 1942, 39, pp. 227-239.

²The rating of Specialist (Classification) was created in January, 1943. The men holding this rate were especially well qualified. Seventy percent had attended college and of these, many had Master's Degrees and some were Ph.D's. The largest civilian occupation experience groups were in the fields of social work and psychology. Others had training in personnel, law and teaching. <u>Selection and</u> Classification <u>Bulletin</u>, (September, 1944), pp. 1-2.

taking special cognizance of the test scores, and subjectively evaluating personality traits, attitudes and interests, made a first and second recommendation as to the man's further training.¹ Generally speaking, these recommendations were either for a particular service school, such as Electrician's Mate's school, Yeoman's school, Quartermaster school, or for operational training in the deck or engineering force.

Special qualifications with reference to both test scores and occupational experience were set up as desired requirements for specific service schools. A score of average or above on the General Classification Test, and on other pertinent tests was usually the minimum for recommendation for service school training. Men not meeting the requirements were recommended for "sea duty," and at the termination of the boot training, were received by various operational training bases. Amphibious training was one such operational branch.

The Amphibious Force

It might be assumed that under this system of selection, the Amphibious Force was made up almost entirely of men whose General Classification Test scores were below the mean of 50. It is known, however, that quite frequently, and for long periods of time, the quotas for service schools were small in relation to the number of men who qualified for these schools. When this situation

¹Exceptions to this process were referrals for Officer Candidate School, direct commissions, and special billets. Also, here again, the men were screened for personality disorders, and referrals were made to a psychologist in the Classification Department, who administered psychometric tests and made referrals to the Medical Department when it was considered necessary.

existed, many men with high test scores were designated for sea duty and a portion of these went into the Amphibious Force. Also, since the Amphibious Force required specialized personnel, it received graduates of regular service schools who were assigned to the Amphibious Force for operational training and duty. In general, the men in the Amphibious Force represented a cross-section of the enlisted personnel in the Navy, except that there may have been a slightly larger percent of men in the lowest quartile of test scores.

Men assigned to the Amphibious Training Command were again interviewed by Classification Specialists at the amphibious training base and were recommended for courses which were organized and taught at the training base. Generally speaking, these courses were very much like the regular Navy service schools, except that they were of shorter duration and were oriented toward the duties aboard a particular type of amphibious craft or ship. Thus, only the skills were taught which were necessary for the efficient operation of the particular type of craft or ship. The training for each type of amphibious craft or ship. The training for each type of amphibious craft or ship was usually carried on at a separate base.

All men received at an amphibious training base participated in some course, such as seamanship, diesel motor operation, signalman. Upon completion of these courses, men were formed into crews and at that time were assigned as a unit to separate living quarters. An attempt was made by the Classification unit to "balance" these crews in ability, by consideration of test scores and by the use of a subjective rating scale. All members of the crew lived together except officers, Chief Petty Officers, and Negroes,

of these groups having separate quarters. During this period, the crews completed their training afloat, which was terminated by a "shakedown cruise," at which time both the crew and the ship underwent final trials before being made available for active duty.

The traditional officer-enlisted man segregation was somewhat modified by more informality which was characteristic of these small ships. Negroes remained segregated and were almost always relegated to the Steward's branch.

The training program has been briefly described because it illustrates a process of successive group formation and disbandment. Group loyalties were formed in "boot" companies and disrupted by transfer to schools or receiving stations, where new group relationships were formed, to be again disrupted, until finally the individual becomes a member of a crew and is identified with a particular ship. When a crew first goes aboard its ship, both individual and group morale are probably the highest they have been during the whole training period. The men have lost the usual social, religious or sectional ties that bound them into groups in civilian life, but they have developed a camaraderie which more than compensated for the lost relationships.

The feeling that men have for each other as members of a combat team and their feeling toward their officers as leaders of this team, form the essence of a relationship which creates internal cohesion. Because of the size, distinctive character and special purpose of amphibious ships,¹ the identification of the

¹For a description of the training program and actual amphibious operation, see: M. B. Grosvenor, "Landing Craft for Invasion," <u>National Geographic Magazine</u>, 86, (July, 1944), 1-30.

crew with the ship is probably stronger and more complete in the Amphibious Force than in other branches of the Navy. This identification was revealed in the way men referred to their ships. The ships were personalized and spoken of as "our ship," "our barge," etc. The ships were small. Each man was especially trained and each recognized his dependence upon the others. Some psychiatrists have analyzed this combat-group situation in terms of brother-brother and father-son identification.¹ Thus, from a psychological point of view, the combat leader is a father person and the men are his children.

In the Navy, enlisted men commonly call each other "mate," and often refer to the captain of the ship as "the old man." The Navy administrative organization probably fosters this kind of identification. This was especially true aboard amphibious craft, where there was more association between officers and men than was common aboard larger ships. In the Navy, men identified with the particular type of ship, such as "battlewagon man," "sub man," "can man," (destroyer), "amphib," or, within the Amphibious Force, "LST man," "LSM man, and "small boat man." After experience of some duration on one type of ship, there is a tendency toward superficial personality stereotyping in accordance with the type of ship.

All of these factors are pertinent to morale and are therefore important in any consideration of combat fatigue.

The men of this study were all in the Amphibious Force and, with very few exceptions, their combat experience had been entirely with the Amphibious Force.

¹Grinker and Spiegel, <u>op</u>. <u>cit</u>., p. 25.

CHAPTER IV

METHODS AND TECHNIQUES

Nature of the Data

This study is based upon social background data, including psychological test scores of 341 men who were returned to this country after a period of naval combat duty in the Amphibious Force in World War II, and case materials in the form of seven case studies. Of the 341 men, 157 were diagnosed "combat fatigue, mild;" 157 were diagnosed "combat fatigue, moderate;" and 27 were diagnosed "combat fatigue, severe." All the diagnoses were made by the same neuropsychiatrist at the same naval base, and all were made within a period of approximately one year.

The three diagnoses, mild, moderate and severe combat fatigue, are based upon the severity of the symptoms. The disposition of each group was as follows: the men diagnosed mild combat fatigue were returned to duty; the men diagnosed moderate combat fatigue were recommended for six months shore duty in their home naval districts; and those diagnosed severe were hospitalized for further treatment and disposition.¹

The data were ascertained from personal interviews and were recorded in the form of social-psychiatric histories.² These interviews were conducted in private by the writer and one other qualified psychiatric case worker. The history was exclusively for the

¹See Appendix I, p. 143. ²See Appendix II, p. 148.

use of the neuropsychiatrist and was not an official United States Navy form. The work was carried on at an amphibious training base which was receiving men with combat experience for reprocessing. There was close cooperation between the neuropsychiatrist and the Classification Unit in this work.

The 341 cases upon which this study is based does not represent the total number of men interviewed during the year.¹ The period of time during which these men were interviewed was from June 10, 1944 to June 10, 1945.² The total number of histories taken during this period was approximately 1,000.34 The original sample consisted of 365 cases, which were selected by drawing every third history from the files. It was necessary to eliminate certain histories because they were incomplete. Forty-one of the mild group and six of the moderate group were discarded. No histories of men diagnosed combat fatigue, severe, were discarded. The large number of incomplete histories in the mild group is accounted for by the fact that the interviewers recognized minimal symptoms in many instances and knew that the neuropsychiatrist would not consider it necessary to have certain background material in these cases. The result of this elimination was to give an equal number of men (157) diagnosed mild and moderate combat fatigue. This does not represent

See Appendix I, p. 146.

²The program of special psychiatric interviews and the taking of social-psychiatric histories was started at this base on June 10, 1944. After June 10, 1945, screening was done aboard ship, and psychiatric histories were not taken.

³See Appendix I, p. 146.

4The 1000 combat fatigue cases are the universe from which the men of this study were taken.

a true proportion of the total men diagnosed mild and moderate combat fatigue, as there were more in the mild group than in the moderate group. The proportion was actually about 6 to 4.¹

It was considered to be advantageous to include the severe group in this study, even though they constituted only about three percent of the total.² Having drawn only four severe cases in the original sample, it was thought advisable to use all of the severe cases diagnosed during the entire period, and thereby form a group large enough to be somewhat more reliable statistically. Thus, 23 additional cases were searched out, making a total of 27 cases of severe combat fatigue.

Statistical Techniques

The data were tabulated by the writer with the assistance of a person trained in social research. The major breakdown of the data is by severity of illness as diagnosed by the psychiatrist.

The coefficient of contingency will be used to measure the deviation of observed frequencies, in the various categories of social data as presented in tables in relation to the three groups, mild, moderate, and severe combat fatigue, from purely random or chance frequencies.

This technique gives an indication of the degree of relationship between various social factors and the severity of combat fatigue. The coefficient of contingency technique, though requiring a more careful interpretation than other coefficients of

> ¹<u>Ibid</u>. ²<u>Ibid</u>.

correlation, has been selected as the best method of testing the hypothesis of this study.

For purposes of analysis, the social factors to be considered will be divided into three groups as follows: (1) those factors of a primary nature or direct in their influence; (2) those factors secondary or indirect in their influence; and (3) stress factors in recent combat experience. The appropriate tables will be presented for each of these groups.

Case Analysis

If it is shown by statistical analysis that recurring configurations of social factors occur in relation to mild, moderate, and severe combat fatigue, a better understanding of the operation of these factors in combat fatigue may be obtained by examining case studies. These social factors may have their significance, then, as active elements in crisis situations, depending upon the individual's definition of these experiences. By the use of case studies, one may gain an understanding of these factors in the individual's unique experience.

PART II

STATISTICAL ANALYSIS OF THE DATA

CHAPTER V

PRIMARY FACTORS

Social factors have been defined broadly in this study. Some, among these factors, are more closely related to, and have more direct influence upon personality organization and disorganization than do other factors. For the purposes of analyzing the social data of this study, they have been divided into primary factors, secondary factors, and stress factors. The primary factors include: age, Navy test scores, educational and occupational data, previous health and accident record, marital status and number of dependents, national descent and religious affiliation or preference.

Age

The ages represented by the data are the ages of the men at the time of the psychiatric interview. Most of the men of this study were at least two years younger at the time of enlistment.

The average age of enlisted men in the Navy in 1944 was 23.5 years.¹ However, 861,793, or approximately 34 percent of enlisted personnel were under 20 years of age.² Although this sample of combat fatigue men, when equated so that the distribution of severity of illness in the sample is in the same proportion as that of the universe of combat fatigue cases from which the sample was

United States Navy, Bureau of Naval Personnel, <u>Information</u> <u>Bulletin</u>, (July, 1944), p. 40.

²United States Navy, Bureau of Naval Personnel, <u>1944</u> Statistics <u>Yearbook</u>,(1945), p. 143.

drawn, differs significantly from the Navy as a whole in having a higher proportion of men in the older age groups, data were not obtainable to allow comparison with the Amphibious Force. The distribution of ages found in the sample may be typical of the Amphibious Force as a whole. There was a tendency to assign younger men to amphibious duty, but this particular group had all experienced a period of combat duty.

As is shown in Table 3, there are significant differences as to age between the three groups, mild, moderate, and severe combat fatigue. A significantly larger percent of the mild group than the moderate and severe is in the 19-21 year old class. Thirtyseven and four-tenths percent of the mild group is in this age class as compared with 26.8 percent and 18.5 percent in the moderate and severe groups. The modal age group for both the moderate and severe groups is found at 22-25 years, 38.1 and 40.8 percent respectively.

TABLE 3

PERCENTAGE	E DISTRIBU	JTIC	ON OF	PÀ	TIENTS	ΒY	AGE
AND	SEVERITY	\mathbf{OF}	COMBA	LΤ	FATIGUE	2	

	Mild	Moderate	Severe
Age	<u>N157*</u>	N157	N27
17-18	•6	0.0	0,0
19-21	37.4	26.8	18.5
22-25	36.2	38.1	40.8
26-30	13.3	22.3	33.3
31-35	8.2	6.4	3.7
35 and above	4.3	6.4	3.7
Tótal	100.0	100.0	100.0

*N refers to the total number of cases in each category of diagnosis.

In the next older group, 26-30, however, the percent of the mild group is significantly lower than the percentage of the moderate and severe groups. One-third of the patients diagnosed severe combat fatigue are in this older group, whereas only 13.3 percent of the mild and 22.3 percent of the moderate are in this class.

Nearly 41 percent of the severe group were 26 years of age and older, as compared with 35 percent of the moderate group and 26 percent of the mild group. These percentages are more meaningful when considered in relation to the fact that only 28.8 percent of the enlisted men in the Navy were 26 years of age and older in 1941.

As the severity of the illness increases, age of the patients seems to increase, but the coefficient of contingency is .202 and P is .10, which indicate that the association is probably due to chance.

Gillespie, referring to studies presented in the <u>British</u> <u>Official Medical History of the War</u>, (World War I), concluded that "age over 30" was one of the factors which "favor the development of some form of psychoneurotic reaction in war."

The history of the Medical Department of the United States Army,³ also of World War I, reports that:

> The psychoneuroses followed approximately the age distribution of the drafted men of the Army as far as the group

United States Navy, Bureau of Personnel, <u>Information Bulletin</u>, <u>op. cit.</u>, p. 40.

² Gillespie, <u>op</u>. <u>cit</u>., p. 170.

³ <u>The Medical Department of the United States Army</u>, Vol. X, <u>Neuropsychiatry</u>, (Washington: Government Printing Office, 1929), p. 234,

between the ages of 25 and 29 years was concerned. They fell below the distribution in the 20-24 years' period and rose in the group over 29.

Grinker and Spiegel¹ conclude that:

Although stability is a property of an individual and cannot be averaged, events have proved that the older men stand up under the stress of poor living conditions, separation from home and the horrors of war much less successfully than the youngsters. After they become ill, recovery is slower and less complete.

At Fort Dix, Brussel and Walpert found that the most frequent age in relation to onset of the illness and admission to the hospital was between 21 and 22 years.²

In a study of 183 veterans admitted to St. Elizabeths Hospital with various neuropsychiatric conditions, it was found that 55.6 percent were included in the age group 21 to 30, and that only 17.9 percent were older, whereas 26.5 percent were younger.³

Associating age with emotional maturity, Raines and Kolb,⁴ from their Navy experience, state that:

While there is no direct correlation between chronological age and emotional maturity, the personalities usually associated with age below 18 and above 38 comprise this group which appear to be particularly susceptible to the combat situation. It is not meant that those in the intermediate groups are not susceptible, or that these types inevitably suffer traumatic neurosis. Other factors being equal, the younger and the older men are the most disturbed emotionally by combat, and recover more slowly.

¹Grinker and Spiegel, <u>op</u>. <u>cit</u>., p. 423.

²James A. Brussel and Harold R. Walpert, "The Psychoneuroses in Military Psychiatry," <u>War Medicine</u>, Vol. 3, No. 2, (Feb., 1943), p. 142.

³Alexander Simon, Margaret Hagan, Roscoe W. Hall, "A Study of Specific Data in the Lives of One Hundred and Eighty Three Veterans Admitted to St. Elizabeths Hospital," <u>Mar Medicine</u>, Vol. I, No. 3, (May, 1941), p. 388.

A Raines and Kolb, op. cit., p. 930.

The conclusions of Raines and Kolb regarding the likeliest age of susceptibility appears to be almost opposite to the findings of the present study. The data of this study do not substantiate Raines and Kolb's conclusions but, on the other hand, indicate a slight but not statistically significant tendency toward susceptibility in that age group somewhat above the median for Navy personnel as a whole. This relationship appears to be in agreement with the findings of most of the other authors cited, although it should be noted that the studies cited are not strictly comparable.

Navy Test Scores

The test scores, with the exception of the Personal inventory, of the men of this study, are the scores received by them at the time they entered recruit training.¹ The basic battery of tests for enlisted personnel included eight separate tests. The General Classification Test is a measure of the ability to learn and to solve verbal problems.² Other tests of the basic battery measure the ability to read and understand naval publications, skill in arithmetical reasoning, mechanical aptitude, mechanical knowledge, and electrical knowledge, radio code test, and a test of spelling and clerical ability. This study deals only with the scores received on the General Classification Test, the Mechanical

Lexceptions to this statement: first, cases where the original records were lost, and second, men who had entered the Navy before the complete testing program had been inaugurated. Both of these groups were tested when they were received at the amphibious base. They comprise an unknown, but small percent of the men of this study.

²United States Navy, Bureau of Personnel, <u>1944</u> Statistics Wearbook, p. 207.

Knowledge Test, Electrical Knowledge Test, and the Personal Inventory, since these were the only tests for which scores were uniformly available at the amphibious base.

The scoring of the tests of the basic battery is best explained by quoting the following paragraph from the Navy <u>1944</u> <u>Sta-</u> <u>tistics</u> <u>Yearbook</u>.¹

> The number of points made on a Navy examination is converted to a <u>Navy Standard Score</u>. Navy Standard Scores on different tests are directly comparable even though the total number of points on different examinations may vary. A standard score of 50 is just "average" for enlisted men. Men with scores from 45-54 inclusive, are in the middle one-third. Scores from 55-64 may be considered "substantially above average," and scores from 35-44 "substantially below average;" one-fourth of all enlisted men will fall in each of these two categories. Scores above 65 are "high" and scores below 35 are "low;" one-twelfth of all enlisted men will fall in each of these two categories.

Each point above or below 50 represents one-tenth of a standard deviation from the mean; a score of 60 being one standard deviation above the mean, a score of 70, two standard deviations above the mean, and so on.

The General Classification Test

The General Classification Test is the basic test of the entire battery. The classification used in the tabulation of these data are the same as those used by the Navy Department in statistical compilations.

When weighted so that the distribution of severity of illness in the sample is in the same proportion as that of the universe of combat fatigue cases from which the sample was drawn, the distribution of test scores on the General Classification Test in

l <u>Ibid</u>. this study does not deviate significantly from the distribution for the entire Navy. However, the variation between the three groups, mild, moderate, and severe combat fatigue, is significant.

TABLE 4

PERCENTAGE DISTRIBUTION OF PATIENTS BY GENERAL CLASSIFICATION TEST SCORES AND SEVERITY OF COMBAT FATIGUE

	Mild	Moderate	Severe
GCT Score	<u>N157</u>	N157	N27
65 and above 55-64 45-54 35-44 0-34	5.1 22.9 35.1 22.9 3.8	5.7 24.2 38.2 22.3 6.4	18.5 18.5 33.4 18.5 11.1
Total	100.0	100.0	100.0

There is a progressively wider distribution from mild to severe, that is, the severe group contains a larger percentage in the highest and lowest classes of scores. In the severe group, 18.5 percent have scores of 65 and above, as compared with 8.3 for the Navy; 5.1 percent of the mild group and 5.7 percent of the moderate group. This difference is statistically significant. In the lowest test score class, 0-34, 11.1 percent of the severe group were in this class, as compared with 8.3 percent for the Navy, 3.8 percent in the mild group and 6.5 percent in the moderate group. This difference is not statistically significant.

In the severe group, one-third are in the class about the mean of 50, the two classes on either side of the mean contain 18.5 as compared with 25 percent for the Navy as a whole. The extremes

of high and low test scores are greater than for the Navy as a whole.

This table seems to present evidence that intelligence, as measured by the General Classification Test, is a factor of importance in combat fatigue in the severe cases. Since this relationship is not found between the mild and moderate groups, however, it is apparently related more directly to the extreme severity of the illness.¹

The Mechanical Knowledge Test

The entire sample of combat fatigue cases, when equated so that the distribution of severity of the illness in the sample is in the same proportion as that of the universe of combat fatigue cases from which the sample was drawn, appears to have significantly higher scores on the Mechanical Knowledge Test than does the Navy as a whole. Using the Chi-square test, P equals .05.

TABLE 5

PERCENTAGE I	DISTRIBU	TION	\mathbf{OF}	PATIE	VTS	BY	MECH	IANICAL	KNOWLEDGE
TEST	SCORES	AND	SEV	/ERITY	\mathbf{OF}	COM	BAT	FATIGUE	2

والمراجع والمراجع والشكاف المرجوع ومحاجبا والمشور ويتوجه والتكاف فالمراجع	المتحمد ومستحمد بيوجد وبيست متسألات حديده ومعتما والباري والمتحد		
Mechanical	Mild	Moderate	Severe
Knowledge Test Score	N157	N157	N
1000 00010	<u> </u>	<u>*==</u> ± <u>//</u>	
65 and above	8.9	12.7	11.1
55-64	26.1	29.9	33.4
45-54	33.8	38.3	37.0
35-44	19.1	13.4	11.1
0-34	1.9	2.5	7.4
Not given	10.2	3.2	0.0
Total	100.0	100.0	100.0

¹This clear-cut relationship between the General Classification Test score and the severe cases does not appear when the coeffrient of contingency is used on the entire table. C equals.166 and P equals.30.

As is shown in Table 5, on page 55, each group has over 25 percent in the 55-64 class and the percentage becomes progressively larger from mild to severe, i. e., mild, 26.1; moderate, 29.9; and severe, 33.4 percent. The severe group has the largest percent in the 0-34 class (7.4), and thus comes nearer the Navy average. None of the differences are significant. The coefficient of contingency is .138 and P is .50.

Electrical Knowledge Test

When equated so that the distribution of severity of illness in the sample is in the same proportion as that of the universe of combat fatigue cases from which the sample was drawn, the distribution of test scores on the Electrical Knowledge Test in this study does not deviate significantly from the distribution for the entire Navy. Neither are there significant differences between the three groups, (Table 6). The coefficient of contingency is .174, and P is .20.

TABLE 6

Electrical	Mild	Moderate	Severe
Knowledge	N157	N157	N27
1030 00010			<u> </u>
65 and above.	8.3	10.8	22.2
55-64.	19.1	28.0	18.5
45-54	36.3	31.9	25.9
35-44	22.3	22.3	33.4
0-34	3.8	5.1	0.0
Not given	10.2	1.9	0.0
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATIENTS BY ELECTRICAL KNOWLEDGE TEST SCORES AND SEVERITY OF COMBAT FATIGUE The data relative to the General Classification Test, Mechanical Knowledge Test, and the Electrical Knowledge Test reveal that in each test the distribution of scores in the severe group showed the greatest variation from the normal frequency distribution, and in each case variation occurred toward the top. In reference to the General Classification Test, the severe group showed an unusually large percent of the scores in the extremely high and extremely low groups.

The writer knows of no comparable study which considers intelligence or special knowledge in relation to combat fatigue. It is generally believed that there is no direct relationship between intelligence and personality maladjustment except as intelligence may be defined in the individual's unique experience. Examples such as the one given by Gillespie,¹ of a dull man being given a job in the service which was beyond his capacity and thus producing symptoms of psychoneurosis, merely substantiate this point.

The Personal Inventory

The Personal Inventory was not part of the basic battery of tests administered at recruit training stations. The Inventory was developed as a screening device. It was used extensively in submarine and amphibious training and in connection with training for hazardous duty.

Most of the men of this study completed amphibious training previous to the use of the Personal Inventory. Although a few men had Personal Inventory scores recorded on their Classification Cards

¹Gillespie, <u>op</u>. <u>cit</u>., pp. 175-176.

previous to their combat duty, all men returning from combat duty were given the Personal Inventory upon being received at the amphibious training base. The scores received at the time of return are the ones used in this study.

A cutting score of 12 was set for trainees. Trainees receiving a score of 12 or above were referred to the psychiatric case workers for a special interview which would determine whether or not the trainee would be referred to the neuropsychiatrist. When the same Personal Inventory was administered to combat men, it was found that few of them received a score under the cutting score. The cutting score for men with combat experience was raised to 30. However, all combat men were referred to the psychiatric interviewers regardless of their scores on the Personal Inventory.¹

TABLE 7

Personality	Mild	Moderate	Severe
Scores	N157	N157	N27
40 and above.	12.1	8.3	33.4
30-39	36.3	36.9	33.3
20-29	21.7	30.0	33.3
17-19	11.4	11.4	0.0
12-16	5.1	5.1	0.0
ll and under	3.2	5.1	o .o
Not given	10.2	3.2	0.0
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATIENTS BY PERSONAL INVENTORY SCORES AND SEVERITY OF COMBAT FATIGUE

The distribution of Personal Inventory scores of the men in this study is skewed toward the top, indicating personal

¹See Appendix I, p. 142.

maladjustment, and this tendency becomes more pronounced from mild to severe, (Table 7). In the mild group, 70.1 percent fall in the upper three classes, that is, scores above 20; in the moderate group, 75.2 and in the severe group, 100 percent fall into the upper three classes, that is, above 20. One-third of the severe group had scores of 40 and above. This percent above 40 is significantly higher than that of the moderate and mild groups, which are 8.3 percent and 12.1 percent, respectively.

These data indicate that men with combat experience, who were later diagnosed combat fatigue, when administered a Personality Inventory which was devised for screening "normal" trainees, received scores which indicated severe personality maladjustment. This, of course, was to be expected.

Patients' Education

A consideration of the number of years of education completed by the men of this study, when the groups are equated so that the distribution of severity of illness in the sample is in the same proportion as that of the universe of combat fatigue cases from which the sample was drawn, reveals that the sample does not differ significantly from that of the entire Navy.

Data for the Navy as a whole, for enlisted men who had entered the service between July, 1943 and January, 1945, show. the following distribution: (combined into the classes used in this study) grade school attendance and/or graduation, 26.3 percent; 9th through 11th grade, 38.6 percent; high school graduation, 28.2 percent; one, two or three years of college attendance, 5.0

percent, and 1.9 percent college graduates.¹ The mild and moderate groups do not vary significantly from this distribution. However, there are significant differences between the severe group and the other two groups (Table 8), i.e., the percentages in the 0-5 year class are: mild, 0.0; moderate, 1.3; severe, 14.8, and for the next class, 6 and 7 years, the percents are: mild, 5.7; moderate, 5.7; severe, 14.8. The differences in the next three classes are not statistically significant, that is, for the 8th grade graduates, high school, and high school graduates, but in the class 1,2, or 3 years of college, the data reveal: severe, 11.2 percent; moderate, 3.2 percent; mild, 2.6 percent. This difference is significant.

TABLE 8

Education	Mild	Moderate	Severe
of Patient	<u>N157</u>	N157	N27
0-5	0.0	1.3	14.8
6-7	5.7 15.2	5.7 8.3	14.8 18.5
9-11	38.9	40.1	18.5
H.S. Grad	33.8 2.6	38.9 3.2	14.8 11.2
College Grad	0.0	0.0	0.0
Not Given • • •	3.8	2.5	7•4
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATIENTS BY YEARS OF EDUCATION COMPLETED AND SEVERITY OF COMBAT FATIGUE

The coefficient of contingency in this instance is .347, and P is much less than .01. This indicates that the variation between groups represents a moderate but genuine association which

¹United States Navy, Bureau of Personnel, <u>1944</u> <u>Statistics</u> <u>Yearbook</u>, p. 147.

is not due to chance.

The distribution of years of education in the severe group is similar to the distribution of General Classification Test Scores in the severe group. The data indicate that the severe group varies more widely from the norm than either of the other two groups, and seems to show extreme severity of combat fatigue tends to be related to very high educational attainment and very low educational attainment. Since this trend is not shown in reference to the mild and moderate groups, it may not be related to combat fatigue in general.

Social scientists have studied the relationship between education and psychoneurotic disorders. Gillespie comments that: "It does not appear. . . . that education has an immunizing effect on the liability to psychoneurotic and allied conditions, but rather the reverse, as if it were indeed true that 'he who increaseth knowledge increaseth sorrow'."¹ He further points out that in his opinion if this is true, it is the kind of education that is important, and not education, <u>per se</u>. He sees the function of education as providing "pivotal values" and thinks that too often the wrong kind of pivotal values are provided or none at all are acquired.

In a comparative study of all neuropsychiatric cases for which data were available in the first world war, it was found that the psychoneurotic group (this group is the most comparable to combat fatigue), contained persons above the neuropsychiatric average of education, so far as high school and college are

¹Gillespie, <u>op</u>. <u>cit</u>., p. 73.

concerned, but that a relatively higher proportion of them had no schooling than was true of the psychotic, neurological cases, constitutional psychopaths, drug addicts, etc.¹ The same tendency to high or low educational status is seen in the present study in reference to the severe group.

Brussel and Walpert, in their study of 212 men with psychoneurotic conditions at Fort Dix in World War II, found a relationship which is somewhat at variance with the findings of this study. The largest frequency was in the high school group, particularly high school graduates.² They comment that "it would seem, firstly, that 'it takes brains to have a psychoneurosis'. The grammar school boy is not 'intelligent enough'. . . . and again, the man who can go on from high school and pursue the more difficult curriculum of university training may do so because he is better adjusted and is not potentially neurotic."³ This appears to be speculation.

As is discussed later in this study, education, occupation, mobility, health, and other personal factors probably find their importance in a complex pattern of personality traits made up of these and many other elements. Personality types have been related to severity of the illness and to development of symptoms by Raines and Kolb, Grinker and Spiegel, and others.

¹War Department, <u>The Medical Department of the U.S. Army</u> <u>in the World War</u>, Vol. X, p. 234. ² Brussel and Walpert, <u>op. cit.</u>, pp. 146-147. ³<u>Ibid</u>.

Patients' Civilian Occupations

The occupational classification of the men in this study is based upon the <u>Dictionary of Occupational Titles</u>. The data reveal that the largest percent in each group--- mild, moderate, and severe, is in the unskilled class, i.e., mild, 24.9 percent; moderate, 21.7 percent; and severe, 29.7 percent. (Table 9) It will be noted that the severe group has a somewhat larger percent in the unskilled class than the other groups.

TABLE 9

Civilian	Mild	Moderate	Severe
Occupational Group	N157	N157	N27
Professional Tech. & Mgr	0.0 1.9	1.9 1.9	0.0 3.7
Clerical and Sales	14.0	8.9	3.7
Agricul.,Fish., & L ogging	9.6	. 8.9	11.1
Skilled	10.2	14.7	14.8
Semi-skilled • •	12.7	20.3	25.9
Unskilled	24.9	21.7	29.7
Service	5.7	7.0	0.0
None • • • • • •	21.0	14.7	11 .1
Total · · ·	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATIENTS BY CIVILIAN OCCUPATIONAL GROUP AND SEVERITY OF COMBAT FATIGUE

The clerical and sales class contains the second largest percent in the mild group, but the class "semi-skilled" holds the second largest percent of the moderate and severe groups.

It should be noted that a relatively small percent of the men had previously been in agricultural, fishing, or logging
industries, i. e., mild, 9.6 percent; moderate, 8.9 percent; severe, ll.1 percent. As will be indicated later, in Chapter VI, this coincides with the findings relative to rural-urban residence. Slightly over one-fourth of the patients came from rural areas. The larger percentage of unskilled in the severe group is in accord with the lower educational attainment of the group. The coefficient of contingency of .217 is not high enough to indicate a valid association, since P is .30.

Slightly over 18 percent of the total sample, when the groups are equated so that the distribution of severity of illness in the sample is the same proportion as that of the universe of combat fatigue cases from which the sample was taken, indicated that they had no regular occupation. Many of these were students, and others had worked only at odd jobs. The percents in the three groups were as follows: mild, 21.0; moderate, 14.6; severe, 11.1, a relationship which might be expected because of the age distributions of the three groups.

On the subject of the relationship of occupation to psychoneuroses, Gillespie, in a general discussion of occupation and psychoneurosis, relates occupation to emotional security and concludes that the professions and skilled labor afford the most security and are less apt to be factors in psychoneurotic illnesses. He points out that whatever relationship is established between occupation and neurotic behavior, one cannot be certain as to whether it is the result of the nature of the work or of the type of person choosing the occupation.¹ He also refers to the study reported in the

¹Gillespie, op. cit., pp. 75-88.

British official medical history of the war, in which it was found that skilled and clerical occupations were more frequent among men with neuropsychiatric disabilities than in the control group.¹

Civilian occupation was one of the factors considered by Brussel and Walpert.² Forty percent of the psychoneurotic patients studied were clerks and laborers of which there were approximately equal numbers. The classification used by Brussel and Walpert obviously does not follow the <u>Dictionary of Occupational Titles</u>. If other of their classes, such as "handy man," which are unskilled labor, were included in their class "laborers," (assuming that they mean unskilled labor), the unskilled group would be the largest.

A large percentage of men from unskilled and clerical occupations is found in these studies. However, they are not comparable in many ways with the sample in the present study.

Occupational patterns are so complex and interrelated with personality factors, education, and social-economic class, that their functioning in relation to psychoneurosis can best be studied though case histories. The same occupation may be defined by the individual's unique experience in such a way as to become a factor in either normal or abnormal adjustment.

Longest Time Spent on One Job

The largest percent in each group worked on one job for two years or longer. But here it is found that the mild group contains

1<u>Ibid.</u>, pp. 168-169.

²Brussel and Walpert, op. cit., pp. 145-146.

the smallest percent, the moderate, a slightly larger percent, and the severe group contains the largest percent of men working two or more years on one job, i. e., mild, 35.0; moderate, 36.3; severe, 51.9 percent. (Table 10)

TABLE 10

PERCENTAGE DISTRIBUTION OF PATIENTS BY PERIOD OF TIME SPENT ON ONE JOB AND SEVERITY OF COMBAT FATIGUE

Longest time	Mild	Moderate	Severe
spent on one job	N157	N157	N27
Never employed 0-6 months 7-12 months 13-24 months . 24 and over .	20.4 10.2 28.0 6.4 35.0	15.2 10.8 21.1 16.6 36.3	11.1 0.0 22.2 14.8 51.9
Total	100.0	100.0	

The class 13-24 months, contains a significantly smaller percent of the mild group than it does of the moderate and severe groups, i.e., 6.4 percent; 16.6; and 14.8 percent, respectively. The coefficient of contingency of .207 and P is .05 may indicate a low but genuine association in the observed frequency variations in relation to the three groups. These data are in agreement with the data on age. Older men would be expected to have worked longer.

Accidents and Injuries

About sixty percent of the entire sample, when equated so that the distribution of severity of illness in the sample is in the same proportion as that of the universe of combat fatigue cases from which the sample was drawn, had not suffered from serious accidents or physical injuries either in civilian life or in the Navy.

A larger percent of the severe group, 51.8 percent, had suffered from accidents and injuries than had the moderate and mild groups. However, most of them had occurred in civilian life, not in the Navy. In reference to civilian accidents, the moderate group contained a significantly lower percent than the mild and severe groups, i.e., moderate, 12.8 percent; mild, 21.7 percent; and severe, 33.3 percent. The moderate group had the largest proportion of combat accidents and injuries (20.4 percent). The coefficient of contingency of .305 when P equals much less than .01 indicates that the variation between groups is a genuine association not due to chance.

TABLE 11

Accidents	Mild	Moderate	Severe
& Injuries	N157	N157	N27
None Civilian Combat Both Civilian. and combat. Survivor	63.1 21.7 15.2 0.0 0.0	54.1 12.8 20.4 1.3 11.4	48.2 33.3 14.8 3.7 0.0
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBTUION OF PATIENTS BY INCIDENCE OF ACCIDENTS AND INJURIES AND SEVERITY OF COMBAT FATIGUE

Survivors were considered as a separate class. Eleven percent of the moderate group were survivors, which is significant.

Without knowing the accident rate for this age group in civilian life, it is impossible to establish a relationship between accidents and injuries in civilian life and combat fatigue. However, the large percent, one-third, of the severe group having

experienced civilian accidents as compared with the significantly smaller percent of the moderate group and the significantly higher percentage of survivors in the moderate group, suggest important considerations which will be discussed later in connection with the case studies.

Brussel and Walpert, in the study previously cited, found previous injuries to be of no significance.¹

PREVIOUS ILLNESS OF PATIENTS

The data reveal that 48.1 percent of the severe group indicated in the interview that they had experienced serious illness in civilian life, (Table 12). This percentage is higher than that of the moderate and mild groups. The interviewer, on the basis of his experience, divided the illnesses into broad categories of organic and psychogenic. The psychogenic were usually described by the patient as "nervousness." Approximately seven percent of the severe group indicated that they had suffered from "nervousness," compared with only a fraction of one percent of the moderate group and none of the mild group.

TABLE 12

PERCENTAGE	DISTRIBU	JTION	OF	PATI	ENTS	BY	INC	IDENCE	OF	PREVIOUS
	ILLNESS	AND	SEVE	ERITY	OF	COME	AT	FATIGUE	2	

Previous ill-	Mild	Moderate	Severe	
ness of patient	N157	N157	N27	
None Organic "Nervousness".	66.2 33.8 0.0	75.0 24.4 0.6	51.9 40.7 7.4	
Total	100,0	100.0		

¹Brussel and Walpert, <u>op. cit.</u>, p. 148.

It should be noted that 51.9 percent of the severe group said that they had experienced no previous illness, whereas 75 percent of the moderate group and 66.2 percent of the mild group had been free of illness. The association in the frequency distribution between groups appears to be a low but genuine association. The coefficient of contingency equals .233, and P equals much less than .01.

The data indicate little evidence of predisposition in relation to combat fatigue. However, the severe group did experience more organic and emotional illness previous to enlistment than did the other two groups.

Marital Status of Patients

The data relative to the patients' marital status indicate that a progressively larger percent of each group from mild to severe were married, i.e., mild, 32.5 percent; moderate, 38.2 percent; severe, 48.2 percent. The differences are not statistically significant. (Table 13).

TABLE 13

PERCENTAGE DISTRIBUTION OF PATIENTS BY MARITAL STATUS AND SEVERITY OF COMBAT FATIGUE

Patients'	Mild	Moderate	Severe
Marital Status	N157	N157	N27
Single Married Sep. or Divorced	66.2 32.5 1.3	59.3 38.2 2.5	51.8 48.2 0.0
Total	100.0	100.0	100.0

A small percent, (3.8) of the mild and moderate groups combined, were either separated or divorced. None of the severe were separated or divorced.

Not having comparable statistics for the Navy as a whole, comparisons cannot be made. The fact that the percent of married men increased as the severity of the illness increased is due some consideration in the light of other studies.

It was found after the first world war that the psychoneurotic group contained a higher proportion of married men than did any other neuropsychiatric group.¹

Gillespie, referring to the <u>British Official Medical His</u>-<u>tory of the War</u>, points out that men with psychoneurotic disability were "more often married before enlistment, or, if not, more often married during service. . . . than the control."²

Brussel and Walpert, on the other hand, conclude that no significance could be attached to the marital status of the patients of their study.³

The data relative to marital status, when combined with other data in the present study, may be of some consequence.

Number of Dependents

Dependents are defined in this study in the same way as they were defined in the Navy. The most frequent classes are wives,

	– P	Medical	l Depar	rtme	nt of	$\underline{\text{the}}$	United	<u>States</u>	<u>Army</u>	<u>in</u>	$\underline{\text{the}}$	<u>World</u>
<u>War</u> ,	Vol.	X, <u>op</u> .	<u>cit</u> .,	p.	235.							

²Gillespie, <u>op</u>. <u>cit</u>., p. 169.

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³Brussel and Walpert, op. cit., p. 149.

children, and parents. Approximately two-thirds of the severe group had one or more dependents as compared with less than half of the mild and moderate groups. (Table 14). This is a significant difference. Thus, 48.2 percent of the severe group had one dependent as compared with 30.0 percent in each of the other two groups. Fourteen and eight-tenths percent of the severe group, 15.2 percent of the moderate group, and 10.8 percent of the mild group had two dependents and three percent of each group had three dependents.

TABLE 14

Number of	<u>Mild</u>	Moderate	Severe
Dependents	N157	N157	N27
None • • • • •	55 .5	51.6	33.3
One	29.9	30.0	48.2
ſwo	10.8	15.2	14.8
Three	3.2	3.2	3.7
our	0.0	0.0	0.0
live	0.0	0.0	0.0
ix & over • •	.6	0.0	0.0
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATIENTS BY NUMBER OF DEPENDENTS AND SEVERITY OF COMBAT FATIGUE

The categories used in this study are not comparable to those used in the <u>Navy Statistics Yearbook</u>. However, it is believed that the number of dependents, particularly in the severe group, is disproportionately high, even when the age factor is taken into consideration.

The proportion of wives, children, and parents are not given, but in reference to the severe group, 48.2 percent were married, whereas 66.0 percent of this group have dependents. This indicates that a number of these men are supporting parents. It will be recalled that a large percentage came from large families and that nearly 30 percent of their fathers were semi-skilled and unskilled workers.

It is reasonable to believe that the married men and men with other dependents would be somewhat more prone, in many cases, to psychoneurotic illnesses. However, here again the individual's definition of the situation would be the determining factor.

National Descent of Patients

In determining nationality descent of the patient, the place of birth of his parents was the criterion. If both parents were born in the United States, the patient was classified as "U.S." If one or both parents were born in a foreign country, the patient's nationality descent was classified as that of the foreign-born parent. In cases where parents were born in two different foreign countries, the nationality of the father was used.

The data reveal that about two-thirds of each group were of native parents. There is no significant difference between the groups. (Table 15). Of those having one or both parents born in a foreign country, the most frequent nationality backgrounds represented were: Polish, Italian, "Central European," Canadian, English, Irish and Scotish, and a few from various other European and Asiatic countries.

The data seem to indicate that nationality background per <u>se</u> is neither a factor in combat fatigue nor in the severity of the illness.

TABLE 15

National	Mild	Moderate	Severe
Descent	N157	N157	N 27
U.S. Polish Italian Canadian Greek Cent.European. North.European	67.0 6.4 5.7 3.8 0.0 1.9 2.5	63.9 5.1 7.0 1.3 .6 10.0 1.3	70.4 14.8 7.4 3.7 0.0 0.0 0.0
Portuguese and Spanish German Eng.,Irish & Scotish Russian Other	0.0 1.9 2.5 3.2 5.1	1.9 1.9 5.1 1.9 0.0	0.0 0.0 0.0 3.7 0.0
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATLENTS BY NATIONAL DESCLAT AND SEVERITY OF COMEAN FATIGUE

Religious Background of Patients

These data represent the patients' religious background-not affiliation. In taking the social-psychiatric history, the patient was asked "what is your religion?" If the patient hesitated, it was suggested that he could give that of his family. Only about 8.3 percent said that they had no religious preference.

When equated so that the distribution of severity of illness in the sample is in the same proportion as that of the universe of combat fatigue cases from which the sample was drawn, 52.3 percent of the men of this study were Protestant by affiliation or sentiment, 40.7 percent were Roman Catholic, and 2.4 percent were Jewish. Approximately 30 percent of the affiliated population of the United States are Roman Catholic, and the remaining 70 percent are nearly all Protestant.¹ Although these statistics are not comparable, it is reasonable to believe that the percentage of Protestants in the entire sample is below, and the percentage of Roman Catholics is above the distribution which would result from a random sample of men in this age group.

There are no significant differences between the mild, moderate, and severe groups. (Table 16).

TABLE 16

Religious	Mild	Moderate	Severe	
preference	N157	N157	N27	
Protestant	54.8	47.7	51.9	
Jewish	1.9	42.7 3.2	44.4 3.7	
Other	0.0	1.3	0.0	
Total	100.0	100.0	100.0	

PERCENTAGE DISTRIBUTION OF PATIENTS BY RELIGIOUS PREFERENCE AND SEVERITY OF COMBAT FATIGUE.

Religion is a factor in combat fatigue only as a personality factor, as defined by the individual, and in relation to other factors such as urban residence, section of the country, occupational level, and other elements in the total configuration.

¹Bureau of the Census, <u>Summary and Detailed Tables</u>, <u>Religious</u> <u>Bodies</u>: <u>1936</u>, Vol. I, (Washington: Government Printing Office, 1936), p. 19.

CHAPTER VI

SECONDARY FACTORS

Familial Background

Birth Position

Birth position has been shown to be a factor of some importance in personality disorganization. Its importance depends upon how it is defined by both the individual and society. In our culture, the youngest, oldest, or only child in a family may be in a more precarious position than other children.

TABLE 17

Patients'	Mild	Moderate	Severe
Birth Position	N157	N157	N27
Only child	5.7	5.1	11.1
Youngest	31.3	29.3	14.8
01dest	22.9	17.8	3.7
0ther	40.1	47.8	70.4
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATIENTS BY BIRTH POSITION AND SEVERITY OF COMBAT FATIGUE

The data of this study indicate that there is a smaller percent of youngest and oldest children in the severe group than in the moderate and mild groups. (Table 17). The percent increases in the moderate group and is the largest among the men diagnosed mild combat fatigue. Seventy percent of the severe group were other than youngest, oldest or only children, as compared with 47.8 percent and 40.1 percent of the moderate and mild respectively. This difference is statistically significant.

This distribution was to be expected in view of the large percentage of the severe group with many siblings. It is interesting to note that the severe group also contained the largest percentage of only children, but this difference was not statistically reliable.

Number of Siblings

The data indicate that nearly one-fourth of the men diagnosed mild and moderate combat fatigue had six or more siblings. There were no men in the severe group who had six siblings, but 29.7 percent of them had five siblings. The severe group also has a larger percentage with four siblings than do the moderate and mild groups.

TABLE 18

Mild	Moderate	Severe
N157	<u>N157</u>	N27
5.7 15.2 21.0 15.9 8.9 10.8	4.5 15.2 16.6 14.7 15.2 9.6	7.4 7.4 25.9 7.4 22.2 29.7
100.0	100 0	100.0
	Mild N157 5.7 15.2 21.0 15.9 8.9 10.8 22.5 100.0	Mild Moderate $N157$ $N157$ 5.7 4.5 15.2 15.2 21.0 16.6 15.9 14.7 8.9 15.2 10.8 9.6 22.5 24.2

PERCENTAGE DISTRIBUTION OF PATIENTS BY NUMBER OF SIBLINGS AND SEVERITY OF COMBAT FATIGUE

The entire sample contains an unusually large percent of men who have five, six, or more siblings,¹ but there are no significant differences between the three groups.

Marital Status of Patients' Parents

The data relative to the marital status of the patients' parents are considered in the following classes: parents married (not separated, divorced, or deceased), separated or divorced, father deceased, mother deceased, and both parents deceased. There are no significant differences between the three groups, mild, moderate, and severe. (Table 19.)

TABLE 19

PERCENTAGE DISTRIBUTION OF PATIENTS BY MARITAL STATUS OF PARENTS AND SEVERITY OF COMBAT FATIGUE

Marital status of parents	Mild Moderate		Severe	
	N157	N157	N27	
Parents not sep., div., or deceased Sep. or divorced Father deceased Mother deceased Both parents dec	57.4 8.9 18.5 11.4 3.8	51.6 9.6 15.9 15.9 7.0	55.6 7.4 25.9 11.1 0.0	
Total	100.0	100.0	100.0	

In the sample as a whole, slightly over half came from homes in which the parents were living together. Somewhat under half were from "broken homes": mild, 43.6 percent; moderate, 48.4 percent; and severe, 44.4 percent. It is estimated that approximately onethird of the children in the United States are from broken homes. Thus it appears that the sample in this study includes a larger percent of men from broken homes than would be true of a sample of the

For comparative size of families, see Ernest W. Burgess and Harvey J. Locke, <u>The Family from Institution to Companionship</u>, (New York: American Book Co., 1945), pp. 45-46.

population at large. It is not known what the percentage of broken homes would be for men of comparable ages in the Navy as a whole. However, Gillespie reports a study made at Guys Hospital, London: "An analysis of eighty-seven consecutive cases of war neurosis has shown that twenty-seven or 31 percent came from homes where the parents were either separated or divorced, or one of them was dead, or had deserted." In a control group of surgical cases, only 7 out of 50 were from broken homes.

Psychiatrists and sociologists are generally agreed that in our culture, family instability is often a factor in personal maladjustment. Consideration of the data up to this point indicates that these men diagnosed combat fatigue tend to be from large families which, at the time of diagnosis, were often broken by separation, divorce, and death.

Employment of Patients' Mothers

TABLE 20

Mothers'	Mild	Moderate	Severe
employment status	N157	N157	N27
Yes	5.7	5.1	11.1
No	90.5	94.9	88.9
Dontknow	3.8	0.0	0.0
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATIENTS BY MOTHERS' EMPLOYMENT STATUS AND SEVERITY OF COMBAT FATIGUE

¹Gillespie, <u>op</u>: <u>cit</u>., p. 64.

Approximately 90 percent of the men in the entire sample stated that their mothers were not working. There are no significant differences between the three groups. The fact that only approximately 10 percent of the patients' mothers were employed would seem to coincide with the larger than average families, and the data relative to the age of the sample. (Table 20, p. 78).

Occupation of Patients' Fathers

Occupations of both the patients' fathers and the patients were classified in accordance with the <u>Dictionary of Occupational</u> <u>Titles</u>.¹

TABLE 21

Occupation	Mild	Moderate	Severe		
of Father	N157	N157	N27		
Professional Tech. & Mgr Clerical & Sales Agr.,Fish., & Log. Skilled Semi-skilled Service	1.9 8.3 .6 9.6 23.0 15.2 24.2 8.9	3.2 8.9 3.8 17.2 21.0 15.9 14.7 6.4	7.4 18.6 7.4 11.1 22.2 22.2 7.4 0.0		
Don't Know Total	8.3	8.9	3.7		

PERCENTAGE DISTRIBUTION OF PATIENTS BY OCCUPATION OF FATHER AND SEVERITY OF COMBAT FATIGUE

The largest percentage of all the combat fatigue cases came from homes in which the fathers were engaged in semi-skilled and

United States Government Printing Office, <u>Dictionary</u> of Occupational Titles, Part I.

skilled work. However, in the severe group, a significantly smaller percentage of the patients' fathers were unskilled (7.4 percent), as compared with 14.7 percent and 24.2 percent in the moderate and mild groups, respectively. (Table 21, p. 79). A significantly larger percentage of the severe group's fathers were found in the clerical and sales group; and also in the technical, managerial and professional groups, but not in significant proportions.

Education of Patients' Fathers

Over 40 percent of the patients either did not know, or did not want to give information relative to their fathers' education. In the interview, the man was not pressed for this information.

TABLE 22

Education of	Mild	Moderate	Severe
Father (years)	<u>N157</u>	<u>N157</u>	N27
0 to 5 6 to 7 8th grade Grad. 9 to 11. H.S. Graduate. College, .	2.5 9.6 20.4 6.4 7.6 1.9 3.2	5.1 10.2 22.3 3.2 12.1 1.9	18.5 18.5 7.4 3.7 7.4 3.7 0.0
Don't know	48.4	44.6	40.8
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATIENTS BY EDUCATION OF FATHER AND SEVERITY OF COMBAT FATIGUE

The only significant difference between the three groups, based upon the 60 percent providing information, is that a much larger percent (18.5), of the fathers of the patients diagnosed severe combat fatigue, fall in the educational class 0 to 5 years, than is true of the fathers of the other two groups. (Table 22, p. 80).

Education of Patients' Mothers

Here again, approximately 40 percent of the patients did not know, or did not wish to give information relative to their mothers' education.

The mothers were somewhat better educated than were the fathers, but this was equally true of all three groups. No significant differences were found. (Table 23).

TABLE 23

PERCENTAGE DISTRIBUTION OF PATIENTS BY EDUCATION OF MOTHER AND SEVERITY OF COMBAT FATIGUE

Education of	Mild	Moderate	Severe
Mother (years)	N157	N157	N27
0 to 5 6 to 7 8th grade Grad. 9 to 11	3.2 4.5 22.9 6.4	3.8 7.0 21.0 6.4	11.1 11.1 18.5 7.4
H.S. Graduate . College College Grad Don't know	12.1 2.5 .6 47.8	15.9 1.3 1.9 42.7	11.1 3.7 0.0 37.1
Total	100.0	100.0	100.0

Family Health

More than three-fourths of the men of this study indicated that their parental families' health was "generally good." The percentages for each group are: mild, 75; moderate, 79; severe, 88.9. This would seem to indicate an inverse relationship between family health and severity of combat fatigue, but the differences are not large enough to be statistically significant.

A slightly larger percent of the patients' mothers were in ill health than fathers, but the differences are not significant. (Table 24).

TABLE 24

PERCENTAGE	DISTRIBUTION		OF	PATIENT	rs by	FAMILY	HEALTH
	AND	SEVERITY	OF	COMBAT	FATI	GUE	

Family	Mild	Moderate	Severe		
Health	N157	N157	N27		
Generally good	75.0	79.0	88.9		
Father ill	6.9	7.0	0.0		
Mother ill	11.3	8.9	7.4		
Wife ill	0.0	0.0	0.0		
Sibling ill	3.7	•6	0.0		
More than one member ill .	3.1	4.5	3.7		
Total	100.0	100.0	100.0		

Rural or Urban Residence

In 1940, 43.5 percent of the population of the United States lived in rural areas, that is, in open country or in villages of less than 2,500 population.

The men of this study were divided into rural and urban residence on the basis of the estimated population of their home communities, 2,500 being the dividing line between rural and urban. The data show, when equated so that the distribution of severity of illness in the sample is in the same proportion as that of the

¹Bureau of the Census, <u>16th Census of the United States</u>, Series P-3, No. 13, (Washington: Government Printing Office, 1941),

universe of combat fatigue cases from which the sample was drawn, that 26.1 percent of the sample were from rural areas and 73.4 percent from urban communities. This represents a disproportionately large percent from urban areas. There are no significant differences between the three groups, mild, moderate, and severe. (Table 25).

Urban areas in the United States have a higher rate of emotional and mental illnesses than rural areas.¹ Apparently urbanization must be considered, along with other factors, as part of a recurring pattern found in the backgrounds of experience of the men of this study.

TABLE 25

PERCENTAGE DISTRIBUTION OF PATIENTS BY RURAL OR URBAN RESIDENCE AND SEVERITY OF COMBAT FATIGUE

Home Area	Mild	Moderate	Severe	
	N157	N157	N27	
Rural Urban Not given	22.9 77.1 0.0	32.5 66.2 1.3	22.2 77.8 0.0	
Total	100.0	100.0	100.0	

Geographic Area in which Home is Located

In dividing home areas into sections of the country, the following areas were established: East---the east coast states south to Virginia and west to Ohio; Middle West---all states north and west of the Ohio River on the east side of the Mississippi River, and Missouri, Iowa, Minnesota, North and South Dakota, Nebraska, and

¹ Benjamin Malzberg, <u>Social and Biological Aspects of Mental</u> <u>Disease</u>, (Utica: State Hospital Press, 1940), pp. 82-89.

Kansas; South---all the states south of the Ohio River, east of the Mississippi River, and Arkansas, Louisiana, Oklahoma, and Texas west of the Mississippi; and West---includes New Mexico, Colorado, Wyoming, Montana, and all of the states west to the coast.

The data show that each group has the largest percentage of home residence in the East, that is, mild, 45.9 percent; moderate, 40.1 percent; and severe, 59.3 percent. The second most frequent area in all groups is the Middle West. The South ranks third and the West, fourth. This proportion is probably in keeping with the general distribution in the Navy. The only significant difference between the three groups, mild, moderate, and severe, is found in the distribution of men from the Middle West. The mild and moderate groups have a larger percent from this area than the severe group, i.e., mild, 23.6 percent; moderate, 38.9 percent; and severe, 18.5 percent. (Table 26).

TABLE 26

PERCENTAGE	DIST	RIBUTION	OF F	PATIENTS	BY C	JEOGRAPHI	C AREA	IN	WHICH
H	DME I	IS LOCATE	D ANI) SEVERIT	ry of	COMBAT	FATIGUE	C	

Section of	Mild	Moderate	Severe		
Country	N157	N157	N27		
East South Middle West	45.9 19.7 23.6	40.1 15.2 38.9	59.3 14.8 18.5		
Total	100.0	100.0	100.0		

There are no comparable statistics for comparison.

It is interesting to note that Mira, from his experiences

with the Spanish Republican Army in the Spanish Civil War, comments, ". . .soldiers from the North were more resistant to nervous breakdowns than those from the South, but once the northerners developed a neurosis, recovery was far more difficult."

¹ E. Mira, <u>Psychiatry in War</u>, (New York: W.W. Norton and Co., 1943), p. 73.

CHAPTER VII

STRESS FACTORS

In discussing the "situational approach" to an understanding of combat fatigue in Chapter II of this study, it was pointed out that many writers are placing much emphasis upon the significance of stress factors in "war neurosis" and combat fatigue.

Dr. William C. Menninger, who definitely recognized stress factors but continued to emphasize predisposition,¹ recently made some very significant remarks in a paper which he read at the 102nd annual meeting of the American Psychiatric Association. Commenting upon "the lessons learned during the war," he said, in part:

> It is difficult to place priorities of importance on the many lessons that we learned from the psychiatric experience in the remarkable human laboratory created in the Army by this war. . . . Perhaps the most widespread and impressive experience of the military psychiatrist was the opportunity to observe the effect of extraordinary external stress in precipitating personality disorder. The existence of psychiatric determinants such as history of maladjustment in the family or in the individual, contributed to many of the casualties that occurred. On the other hand, far more impressive in the adjustment process than the history or the personality make-up or the internal psychodynamic stresses, was the force of factors in the environment which supported or disrupted the individual. We learned that maintenance of mental health was largely a function of leadership which included the extremely important element of motivating the man to want to do his job and remain loyal to his associates and his The absence or weakness of these supportive facunit. tors in the presence of many excessive stresses seems to account for many of the psychiatric casualties, a large

¹Menninger, Atlantic Monthly, <u>op</u>. <u>cit</u>., p. 110.

number of which undoubtedly occurred in individuals with a minimal predisposition to mental illness.¹

Stress factors are difficult to measure. Stress varies both in intensity and duration and with the individual's tolerance for stress. The individual's emotional threshold is related to both his past experience and factors of morale and group dynamics in the precipitating situation.

, Statistical data relative to stress in this study are limited to two related factors: length of service in the Navy and length of combat duty.

Months of Service

The data relative to the length of service indicate a correlative relationship between months of duty and severity of illness. The mild group contains a significantly larger percent of men with less than two years of service than do either the moderate or severe group. The percentages of each group in each of the shorter periods of service are: (0-12 months), mild, 9.6; moderate, 0.0; and severe, 0.0; (13-18 months), mild, 17.2; moderate, 6.4; and severe, 11.1 percent; and in the 19-24 months class: mild, 70.6; moderate, 45.9; and severe, 3.7 percent.

The severe group is distinctly set off by a long period of service, that is, 85.2 percent had been in the Navy for two years, whereas only 47.7 percent of the moderate group, and 2.6 percent of the mild group had served for over two years. The coefficient of contingency of .557 and P of .01 indicate that these differences

^LWilliam C. Menninger, "Psychiatric Experience in the War, 1941-1946," <u>The American Journal of Psychiatry</u>, Vol. 103, No. 5, (March, 1947), pp. 579-580.

represent a genuine association which is not due to chance.

These data indicate a relationship between length of service and severity of combat fatigue. (Table 27).

TABLE 27

Months of	Mild	Moderate	Severe
Service	<u>N157</u>	N157	<u>N27</u>
0-12	9.6	0.0	0 .0
13-18	17.2	6.4	11.1
19-24	70.6	45.9	3.7
25 and over	2.6	47.7	85.2
Total	100.0	100.0	100.0

PERCENTAGE DISTRIBUTION OF PATIENTS BY LENGTH OF SERVICE AND SEVERITY OF COMBAT FATIGUE

In the study previously cited, which was made at St. Elizabeths Hospital, 24 percent of the patients had served one to three years. This was the modal group in a distribution beginning with one day and ending with twenty years.¹

Gillespie quotes M. Culpin with reference to studies completed after the first world war, which were concerned particularly with predisposition, "The average period of service in the predisposed was only half the general average."

Several writers have pointed out that men suffering from

Alexander Simon, Margaret Hogan, and Roscoe W. Hall, op. cit., p. 389.

²Gillespie, <u>op</u>. <u>cit</u>., p. 168.

war neurosis have usually served as long and as well as the average man in the service.

MONTHS OF COMBAT DUTY

In considering the period of combat duty, the same trend as was shown in the above consideration of length of service is indicated. However, here the largest percent of each group falls into the 19 to 24 months class, i.e., mild, 57.3 percent; moderate, 63.1 percent; and severe, 66.7 percent. In the time periods over two years, however, the moderate group contained the largest percentage.

The severe and moderate groups contain a significantly smaller percentage of men than does the mild group, with combat duty of one year or less. (Table 28, p. 90).

The coefficient of contingency of .347 when P is much less than .01 indicates that these differences represent a reliable association.

Most of the psychiatrists and other writers cited in this study believe any man exposed to sufficient stress in war may develop some kind of psychoneurotic illness, regardless of his previous personality. Stress may be thought of as either intense stimuli for a short time, or continuous, less intense stimuli over a long period of time. Amounts of stress experienced by any two individuals in the same normal time span will never be equivalent. Both personal factors, such as one's ability to control anxiety, and impersonal factors such as the kind of duty and fortuitous circumstances of military organization and enemy action, negate even

LEmmanuel Miller, op. cit., p. viii.

the semblance of equality of individual emotional stress.

Appel and Beebe, in reporting the findings of their study of combat infantry troops in Italy to the American Medical Association,¹ stated that they considered 200 to 240 days of combat as a maximum. They believed that the peak of efficiency was reached in the first ninety days and recommended that alternating periods of combat and recreation be established. Near the end of the war, the War Department set 120 days of combat as the maximum period of continuous combat to which any man should be subjected.²

TABLE 28

PERCENTAGE	DISTR	UBU.	FION	OF	PAT	LIE	INTS	$\mathbf{B}\mathbf{Y}$	LENGTH	OF	COMBAT
	DUTY	AND	SEVI	ERII	Y (ΟF	COME	BAT	FATIGUE	C	

Months of	Mild	Moderate	Severe		
Combat Duty	<u>N157</u>	N157	N27		
6 and under 7-12 13-18 19-24 25-36 37 and over	1.3 21.0 17.2 57.3 3.2 0.0	1.3 7.0 7.6 63.1 12.7 8.3	0.0 11.1 22.2 66.7 0.0 0.0		
Total	100.0	100.0	100.0		

Grinker and Spiegel,³ and Raines and Kolb,⁴ both conclude that there is no direct relationship between the severity of the patient's

1 J.W. Appel and G.W. Beebe, <u>Newsweek</u>, 28:66, (September 9, 1946).
2 <u>Ibid</u>.
3 Grinker and Spiegel, <u>op</u>. <u>cit</u>., p. 214.
4 Raines and Kolb, <u>op</u>. <u>cit</u>., p. 928.

experiences and severity of symptoms. Recognizing that length of combat duty is the only element of stress considered here, these data tend to corroborate the conclusions of Grinker and Spiegel and Raines and Kolb. PART III

CASE STUDIES

CHAPTER VIII

SEVEN CASE STUDIES AND AMALYTICAL COMMENT

The cases presented in this section were selected by Commander George N. Raines, USN. They were first selected as cases to be used in a clinical situation as part of a psychiatric training course for psychiatric case workers.¹ They were selected as representative of men diagnosed combat fatigue. Dr. Raines had previously published what he refers to as "arbitrary criteria" for the diagnosis of combat fatigue. (See pages 28 and 29 of this study) It is assumed that these criteria served as the basis of his selection of these cases.

The selected cases were interviewed by the writer. Notes were taken during the interview and were rewritten and completed from memory immediately after the interview. The original purpose of the interviews was to aid the interviewer in gaining an understanding of the social-psychological backgrounds of the patients; to gain insight into the precipitating situations and to recognize symptoms of combat fatigue. The interviews are reproduced here in their original form, with minor alterations in wording. Material relative to the precipitating situation and the symptoms elicited are recorded in some detail. The social background material is

¹This course was organized and carried on with the cooperation of the National Defense Research Council. A highly selected group of Specialists (Classification) all of whom previously had had professional training in social work or psychology participated in the course.

summarized.

These cases are not presented as complete case histories, but rather as case studies relative to a particular problem. "A case may be regarded as data which depict <u>any phase</u> or an entire life process of a unit whether that unit be a person, a family, a social group, a social institution, a community, or a nation."¹

Enough factual information relative to the patient's civilian background was obtained in the interview to justify conclusions as to whether or not there was objective evidence of personality maladjustment. However, the phase of life which is depicted in each case is a relatively brief but well-defined phase which has particular pertinence to the study at hand. It may be called the "combat phase," which in each case includes the traumatic situation or series of situations which gave rise to the first symptoms of combat fatigue and in which these symptoms were aggravated and expressed. Thus the combat phase is not limited to actual combat with the enemy, but is extended to interpersonal relationships in the combat group, and to ego conflicts within the person.

It is precisely this area of intrapersonal and interpersonal relations which suggests the use of case materials in study. By the employment of statistical techniques, the stress factors have been identified, isolated, and recognized as significant in the development of combat fatigue and as being related to the severity of the illness. It is at this point that an analysis of cases

Pauline Young, <u>Scientific Social Surveys and Research</u>, (New York: Prentice-Hall, Inc., 1946), pp. 228-229. (Underlining by the writer)

facilitates understanding of individual and group dynamics in situations involving various degrees of stress. By such a procedure, even though it is brief, some insight may be gained into the psychodynamics resulting from precipitating stressful experiences. The extent of generalization justifiable from a few cases is of course limited.

Margaret Mead, in discussing the use of a limited number of cases in social research, points out that ". . . . the student of the more intangible and psychological aspects of human behavior is forced to illuminate rather than demonstrate a thesis."

Notes were taken at the time of the original interpretation and discussion of the following cases, but the analytical comment following each case as presented here is the writer's present interpretation.² They are not presented as complete analyses. They are comments of an analytical nature regarding the unique experiences recorded. It is believed that such interpretation may "illuminate" the psychodynamics and group dynamics involved in each case and that certain limited generalizations may be formulated which will contribute to an understanding of the psychodynamics and group dynamics of combat fatigue, as herein defined.

Margaret Mead, <u>Coming of Age in Samoa</u>, (New York: William Morrow and Company, 1928), pp. 226-253.

²These comments are based upon the writer's previous training and experience in psychiatric social work, his experience of three years in the Navy, in the Hospital Corps, and in Selection and Classification, 18 months of which was spent in psychiatric case work with combat men, and upon his further research in social psychiatry.

Case Studies

Case A, Motor Machinist's Mate, First Class Enlisted, 7-21-42; 19 months combat duty Age, 30 Test Scores: General Classification Test: 53 Mechanical Knowledge Test: 62 Electrical Knowledge Test: 55 Personal Inventory: 26 Diagnosis: Combat Fatigue

The man appeared to be depressed, sad, and listless. He answered questions in short sentences and volunteered little information. He had an almost fixed expression. Interviewer asked how he felt. Patient just shrugged his shoulders.

Interviewer asked how he got along on his leave. "A" replied, "Had a fight with my wife--came back to the base two days before leave was up." When asked what the trouble was, the patient appeared not to want to talk about it. He said, "I was awfully jittery before, and I blew my top."

Interviewer asked when he started feeling jittery. He said that it was after Anzio. Asked if it was rough, "A" explained that he had just previously been transferred from one LST to another and that he resented the transfer orders. He stated that he "never got along with the men so well" on the second ship. His ship experienced close misses at Anzio, but there were no casualties. He had the first of many nightmares the night following the shelling at Anzio.

When asked if he didn't have friends on the second ship, he said that he had no special friends--"Just went about my own work." Patient said that the noise of the angine room bothered him and that he found himself jumping at any sudden noise. Asked if he was still

jumpy, he replied that he was.

Interviewer broached the subject of going back to sea. "At first," he said, "I wanted to get back aboard ship as soon as possible, but now I know I couldn't stand the noise." He continued, volunteering: "I'm not interested in the Navy, the war, or my rate any more. I used to be proud of my rate"

Interviewer asked if he had any physical complaints. Patient told about an old hernia (operation was five years ago) which gave him pain. He also said that he didn't have much appetite; couldn't eat breakfast; felt full and got sick at the stomach, but didn't vomit.

Interviewer inquired about "A's" family. His father was an automobile mechanic, and taught the patient the trade. Father was described as "stern, but knew what was good for me." Patient was an only child. Asked about his mother, patient replied that he had lived in his own home for three years. He thought that his parental home was "just average." The patient lived in the same city as his parents after his marriage. His wife and his mother "get along fine." Asked if he thought that his wife and mother were alike in some ways, he indicated that "They are really a lot alike." Patient had been married for three years, had no children. His marital adjustment seemed to be good. "We lived a quiet life--did things together," was his manner of expressing it. Patient admits being "lost" when away from his wife.

Interviewer asked again about the trouble with his wife on leave. Patient resisted talking about it, and said "I feel awful about it." Patient is corresponding with his wife about the matter. Occupational history--steady work as an auto mechanic. Educational history--completed high school with no difficulty.

Analytical Comment

This man as a civilian had been living a quiet, rather routine life with his wife, for three years. There is no evidence of serious personal maladjustment. One factor in his apparent emotional adjustment was the transference of emotional dependence from his mother to his wife. His statement that his wife and his mother were much alike in some ways, is significant in this connection, but the fact that marital adjustment was satisfactory, that they had no serious conflicts, and that they "did many things together" seem: to indicate that they were both dependent upon each other, and that such transference had not been a disrupting factor in their marital adjustment.

He felt lost when separated from his wife and probably suffered from nostalgia. However, he did form new friendships and apparently found security in group relationships aboard the first ship. While aboard this ship, he had been under fire twice and no symptoms had appeared.

The security of these group relationships was lost when the patient was transferred to another ship. He had not had time to reestablish satisfying interpersonal relationships before he went through another traumatic experience at Anzio. Anxiety and nightmares developed during the following few days. Engine room noises began to bother him and he experienced mild startle reaction. He was somewhat withdrawn, and his thoughts were largely about returning home.

The patient was not in a serious state of disorganization, however, until after his return home on leave. The nature of his conflict with his wife was not revealed. The resistance shown in

refusing to talk about the conflict may indicate an emotional blocking which may have grown out of some frustrating situation in the satisfaction of emotional needs while on leave, and was probably aggravated by a depleted ego. Whether or not the situation involved sexual behavior is not known. Regardless of what the precipitating situation was, acute guilt feelings apparently developed. Guilt feelings were probably increased by the previous pattern of emotional dependence in the marital relationship. Possibly the patient had not completely worked through the Oedipus situation.

Guilt feelings led to depression, anorexia, and more frequent nightmares. The nightmares may be interpreted as self-punishment dreams. Also in this connection, it will be remembered, the patient at first wanted to go back to sea. This may have an element of need for self-punishment in it.¹ At the time of the interview, he was still ambivalent. The pain associated with an old hernia was probably psychogenic in nature, and may indicate a masochistic tendency or may be a part of a more general regressive pattern.

This case illustrates the loss of security through the severing of established group relationships. With the loss of security, anxiety developed, which was followed by regression, which was exhibited in increased emotional dependence and a strong need for gratification. This exaggerated need for gratification was frustrated while on leave and from the resulting conflict, guilt feelings and

What appears to be self-punishment or masochistic tendencies do not necessarily have to be postulated upon the basis of guilt or need for punishment. Going back to sea may be associated with former security found in group relationships. See Masserman, <u>op</u>. <u>cit</u>., p. 110 for a discussion of masochism and milieu interpretation.
depression developed, with tendencies toward self-punishment. The condition was apparently aggravated by previously existing patterns of some degree of emotional dependence.

Case B, Pharmacist's Mate, First Class Enlisted, 10-1-42; 20 months combat duty; survivor Age, 24 Test Scores: General Classification Test: 69 Mechanical Knowledge Test: 51 Electrical Knowledge Test: 54 Personal Inventory: 24 Diagnosis: Combat Fatigue

"B" was noticeably thin, his face was white, and he appeared depressed.

Interviewer commented that he looked as though he had lost some weight. The patient said that he had weighed 165 until about four months ago. When the patient was asked how he liked the food at the hospital, he said. "It's the best I've had in the Navy." Interviewer asked if he had a good appetite. "No," he said, "I don't have much of an appetite--I think it is improving some now, though." Asked if he had any other complaints, "B" replied, "Can't get much sleep. I have terrible dreams." In reply to the question as to whether they were combat dreams, the patient responded "Yes." The interviewer asked when he began to have nightmares. The answer was "Aboard ship." Asked if he had them when he first went aboard. He said "No, we were sunk." Interviewer asked if he was in the water long. The patient exhibited annoyance--figiting and wringing his hands, and said, "No, just long enough to see some fellows get drowned." Interviewer commented, "You must feel awfully helpless in a situation like that." Patient, speaking with some emotion, replied, "I couldn't

do a damn thing--couldn't have stayed afloat much longer, myself." Asked if he was injured, the patient: said, "My arm and shoulder-my left arm was numb and I remember I kept feeling with my right hand to see if it was still there."

Interviewer asked abruptly, "Did you have a good time on your leave?" The patient noticed the intentional change of subject and indicated a desire to talk more about his traumatic experience by saying "I don't mind talking about it now. I didn't tell my family anything, but I think it does help to talk -- that's what the psychiatrists think. This catharsis idea is all right. It stands to reason--I have it in the back of my mind--pictures like--and I think it helps to get it off my mind." Interviewer commented "Yes, I think you are right," and asked how long he had been in the hospital. "A little over a month," was the reply. Asked if his dreams were becoming milder, "B" said, "Yes, they are, but I still dream every night. However, I don't always wake up." Interviewer asked what the dreams were about. "They are not the same all the time," "B" said, "but one that recurs is the time we were sunk--my arm, and even the screams for help." Asked if, in his dreams, he was rescued. He replied in the negative, and said that he usually woke up. Asked about his arm in his dreams, the patient recalled having frequently dreamed that his arm was really shot off. Interviewer asked if he knew most of the crew and was answered affirmatively. When asked if any of his close friends were lost, he replied "Yeah, a little kid I went through boots with." Pause. "That's what makes me feel so bad. I keep thinking that I might have saved him--he sort of depended on me."

Asked what he thought of the doctors, "B" said, "At first I gave them a rough time, just as I did my parents on leave. I blew my top at the least thing. I wanted to be a doctor. In fact, I was taking pre-med." Interviewer suggested that "B" would probably go back to college and a discussion of college work ensued. The patient had been a good student, and had had no difficulties.

Interviewer asked some questions about his home. Patient has one younger brother. His father is a member of a law firm.

Family, school and health history are all negative.

Analytical Comment

There is no objective evidence of previous personality maladjustment. The patient was an intelligent pre-medical college student before he enlisted. His interest in medicine and study of elementary psychology may account for his having some insight into his condition. In the hospital he soon came to accept the treatment well. He recognized that mental catharsis through vocalization relieved emotional tension.

At the time of the interview, the patient had passed through the initial stages of the illness. The early symptoms as reported were largely psychosomatic. He could not eat properly and had lost considerable weight. He began experiencing nightmares after the sinking of his ship and, at the time of the interview, was still having them nearly every night.

In this case the recurring catastrophic nightmares may indicate the psychodynamics of his illness.¹ The dream which recurred

¹Nightmares in combat fatigue are commonly concerned with

with some modification again and again over a period of several months was essentially this: the patient is in the water, there is much confusion, he realizes that he is injured, the pain is severe and he thinks that he has lost his left arm--it is gone. He recognizes shipmates and particularly the "little kid" with whom he went through boot training. He hears cries for help, tries to swim, and can't. He awakens in a cold sweat, terrified.

This man apparently has a tremendous sense of guilt. He has survived when many of his shipmates were lost and this guilt feeling is much aggravated by his having witnessed the death of his friend and by the feeling that he might have saved him.

The particular friend who is described by the patient as a "little kid" and as having been dependent upon him--the patient-may have been identified with his own younger brother. If so, such identification usually involves ambivalent feelings which further aggravates the patient's sense of guilt. In saying that he "couldn't do a damn thing (because) I couldn't have stayed afloat much longer myself," the patient has formulated a rationalization which the ego has not accepted. "The guilt of abandonment cannot be banished, no matter how forcibly the man may try to put it out of his mind. Even when there has been no choice, and survival is due to the sheerest whim of fate"¹

Repetitious catastrophic nightmares, in some degree, are a

Grinker and Spiegel, op. cit., p. 114.

combat or other traumatic situations. They may reproduce or elaborate on specific past experiences of the individual, but this is not always the case.

part of the basic syndrome of combat fatigue. They are usually interpreted as an attempt to master anxiety. However, the dreams of each case have personal significance. In the case under consideration, the dreams may have a punishment value to the patient. In these dreams his arm is gone, he has difficulty staying afloat and awakens before he is rescued. In psychoanalytical terms, this need for punishment may be in response to ego conflicts, and the battle dreams will persist as long as punishment dreams are necessary.

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<u>Case C</u>, Coxswain
Emlisted 2-14-43; 17 months combat duty
Age, 20
Test scores:
General Classification Test: 53
Mechanical Knowledge Test: 40
Electrical Knowledge Test: 46
Personal Inventory: 33
Diagnosis: Combat Fatigue
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Patient had an air of exhibitionism about him. He sat in a slouched, relaxed position, and appeared bored. His face was flushed. "C" cooperated with the interviewer, giving the impression that he was doing the interviewer a favor.

Interviewer asked how he felt. "Ask the doctors," he said. "They seem to know more about how I feel than I do." Asked what <u>he</u> thought his trouble was, "They told me I'm an alcoholic," he said lightly. Interviewer inquired further about this and the patient told about drinking on his leave, and said that his mother objected. He did not drink before his Navy experience. He said that when he came back to the base, AOL twelve hours, he was put on a work detail and restricted for one week, and added, "But then they threw me in the brig." Interviewer asked how that happened. Patient told how, while he was restricted, a friend had brought a pint of whiskey on the base for him. "C" carried this pint under his jumper while on the work detail the next day, taking it out once in a while and drinking from the bottle. In the brig, when he was questioned, he had said that his nerves were shot and that he had to have a drink once in a while to steady them. He was sent to the infirmary and then to the hospital.

Interviewer asked how he was getting along in the hospital. "C" replied with some feeling, "Would about as soon be in the brig. They kept me in a locked ward for two weeks."

When asked if he had any physical complaints, he said "No, but the doctors say I'm a sick man." Interviewer put the question, "Do you think that you are an alcoholic?" Patient answered, "Well, I would like to have a good stiff drink right now." Asked if he had ever had the "D.T.'s," he said he had not. Asked if he had had any trouble on the ward, and the patient asked what the interviewer meant. When the interviewer became more specific and asked how he got along with the rest of the men, "C" replied, "How could anybody get along with a bunch of 'psychos'?"

Asked if he would like to go back to sea, patient said that he would "stick it out" in the hospital before he would go back to sea. Interviewer commented that they might send him back. "Not me. They'll have a hell of a time getting me aboard. I've had enough of that ----," he said, shaking his head. "C" continued talking violently about men who have never been out of the States, elaborating on the injustices in duty.

When asked about his experiences at sea, he revealed that he was on a DD, which suffered air attacks, but no direct hits.

Interviewer asked questions about his home and family. "C" mentioned that he had an older brother who was an officer in the Army. He was asked if his brother was the favorite. "Oh, I don't know about that. I'm just 'little brother', but I always got along all right", he replied. When interviewer wanted to know what he meant by that, his only reply was, "A kid brother has to learn how." Interviewer asked if he felt that his father was strict. "I guess you would say so," he answered. Interviewer then inquired about the relation of the patient and his brother to their mother. "C" answered, "I don't know . . . she don't understand any more." The interviewer asked if he meant that she didn't understand him when he was home on leave. "Yeah, that's right," he agreed.

When asked if he had enlisted, the patient told how he had quit school in the twelfth grade and enlisted against his mother's will. His father had not said much either way.

"C's" school history was apparently good. He had participated in athletics and had been involved in no serious trouble, neither had he been picked up by the police. The patient went to Sunday School up to the time of enlistment. He had never worked, except at odd jobs during the Summer.

Analytical Comment

There is no objective evidence of serious personal maladjustment in the patient's background. There is evidence that he had adopted certain compensatory patterns of behavior in relation to his

inferior status in the family as "kid brother." It is also indicated that he considered his father to be stern. His mother may have been protective of him in conflicts with his older brother.

These factors can only be considered as predisposing in the limited sense of determining the type of adjustment behavior exhibited in his illness. When faced with authority in the Navy, he probably identified that authority with the sternness of his father and the dominance of his brother. Exhibitionism and aggressive behavior apparently resulted from an easy regression to previous patterns of gaining attention and status in the group.¹

Upon his return home, he became anxious about his future duty in the Navy. His drinking and aggressive behavior may be explained as a flight from anxiety. His open defiance of regulations--drinking from the bottle on the work party--illustrates child-like exhibitionism. The patient probably felt that his mother had let him down. When he returned home he had expected herusual comfort and understanding. Instead, her disapproval of his drinking further upset him. He felt that she no longer understood him, and it is possible that he expressed his disappointment and hurt feelings by trying to hurt his mother--by defiance of Navy regulations in being AOL, and more drinking.

One has the feeling that the patient was consciously trying to avoid further combat duty. He stated flatly that he would

Levidence that this pattern of behavior was being continued in the hospital was given by the Pharmacist's Mate on the ward. He informed the interviewer that the patient was a constant "trouble maker."

not go back to sea--that he would "stick it out in the hospital." There is a tendency for patients to exploit their illnesses in this way. This reaction, however, is a by-product of a neurotic condition rather than being the motivating factor as in malingering.

This case represents transference of hostility from father and brother to figures of authority in the Navy and the use of simple aggression and exhibition to gain attention (which he previously had received from his mother), and to ease his anxiety in connection with going back to sea.

Case D, Radioman, Third Class Enlisted 7-15-42; 19 months combat duty; survivor Age, 21 Test scores: General Classification Test: 60 Mechanical Knowledge Test: 53 Electrical Knowledge Test: 54 Personal Inventory: 22 Diagnosis: Combat Fatigue

The patient appeared tense. His face was flushed; he exhibited a tremor of the hands and had an anxious facial expression. He was cooperative.

Interviewer asked how he felt. "D" replied, "Pretty good." Interviewer then asked if he had any complaints. "Just the same as everyone else in this ward, I guess," he said. Interviewer asked, "How's that?" "At night it's a bedlam," "D" answered. "If you don't wake yourself up, somebody else wakes you up." Interviewer inquired **as** to whether he had nightmares. "Not as often as I used to,"he said. "Everybody's got the same thing--you don't have to be a doctor to see that. Yesterday some damn fool buzzed over us and about half the guys hit the deck on their stomachs--crawled under beds-- and I was down there with them."

Asked how the patient got along on his leave, patient replied, "All right, but it was a struggle. The folks didn't say anything--but they could see how I was." Interviewer asked how he felt at home. "Just like I do now," he said, "irritable as hell, shaky. restless, can't sit still. I kept making the rounds all the time I was home. They all thought I was a hero--but I just laughed it off. They asked lots of questions and I would tell them 'I just swam ashore' --in the middle of the Pacific!" Interviewer asked if his ship was sunk. "Yeah," he replied, and the interviewer asked if he was injured. "No, not much," he said. "A DD picked us up in the morning." Interviewer asked when his symptoms appeared, and he said that it was after the sinking. When the interviewer inquired if he had any physical complaints at the present time, he said "No, it's a funny thing, there is not a thing wrong with me--just nerves--still I don't feel safe." Interviewer commented that it would require some time. "Yes, I guess so," he replied. Interviewer inquired about his going back to sea. Patient replied, "Not the way I am now--I wouldn't be worth a damn." He was asked how he thought he would feel about it when he got well. "Sure, I'll go back, he answered readily.

Interviewer asked questions about his family and home. His father was in the real estate business. His mother was "swell." He had two younger sisters. The family had a nice home. The patient had completed one year of college before entering the Navy. "D" said that he was engaged to a girl at home, but he didn't know what she might think of him now, after seeing how shaky he was. In high school he had played on football and basketball teams.

Interviewer asked if he had ever had any trouble with officers. "No, no special trouble, "D" said. "--Had a swell communications officer." (Here the patient's face became even redder. This officer was probably killed.) Interviewer commented that the patient would probably soon be out of the hospital. He said, "Well, I hope so--but I'm no damn good now."

Analytical Comment

This man was from an upper middle class family; he apparently had a stable, well-rounded personality when he entered the Navy. He had completed one year of college. His General Classification Test score places him in about the 83rd percentile among enlisted men in the Navy.

Although the patient, significantly, did not give the details of the sinking of the ship, he had experienced a highly traumatic situation, immediately after which he developed symptoms. The fact that he had avoided these details while at home on leave, although pressed by his friends for them, and that he still passes over them very lightly, possibly indicates an emotional blocking which prevents complete verbalization. This is true, even though he has gained considerable insight into the meaning of his symptoms.

A high degree of intellectualization and a conscious recognition of the relationship of his symptoms to the traumatic experience has been achieved, but he cannot fully express the intensity of his feelings. The patient does <u>feel</u> the emotion of fear. Since he does feel this fear, at an emotional level, and is able to verbalize it, he has no necessity to express it on a visceral level and is consequently free from somatic complaints.

During the period of his leave, he was considered a hero and he modestly played the part of a hero on a round of parties and in other activity. Thus, whatever exaggerated needs he may have had were superficially met until he returned to his base, and it was at this time that he was hospitalized. He probably was not too sure of himself in this role of hero. The fact that he says that everyone thought that he was a hero may indicate that he had a need to be thought of as a hero. In abandoning ship, suffering no serious injury, and being rescued in a relatively short time, he may not, in reality, have performed any heroic act, and, at the same time, some men were lost. Thus the patient probably had guilt feelings.¹ The hero role was not convincing to the self. His tremors, startle reaction and dreams may have been considered as a threat to this role. At least he was embarrassed by them and shows some anxiety about what his parents and fiancee <u>really</u> think of him.

This interpretation gains some support from the fact that the patient seems to have been able to verbalize everything but the details of the sinking.

In terms of ego striving, the rational, conscious forces have won a partial victory, resulting in expression through verbalization. There is evidenced, however, a considerable amount of free-floating anxiety centered about the sinking, which may be related to guilt feelings, but has not, as yet, lapsed into depression. The anxiety, still being generalized in nature, is exhibited

Guilt feelings are common among survivors--merely on the basis of having survived. See Grinker and Spiegel, op. cit., p. 114.

in restlessness, tremors, startle reaction, dreams, and irritability.

<u>Case E</u>, Pharmacist's Mate, Third Class Enlisted 9-28-42; 18 months combat duty Age, 20 Test scores: General Classification Test: 57 Mechanical Knowledge Test: 40 Electrical Knowledge Test: 44 Personal Inventory: 27 Diagnosis: Combat Fatigue

The patient appeared tense; his face was flushed and he looked down at the floor most of the time during the interview. He seemed to be somewhat withdrawn and appeared to be slightly irritated by the interview.

Interviewer asked how he felt. "No good. Can't eat," patient replied, and went on to explain that he could eat only certain foods and that he drinks large quantities of milk. Anything else, he said, made him sick. He has vomited, but does not vomit when he eats only what he wants to eat.

Interviewer asked about his sleeping. "I can't sleep much," "E" replied. "My heart throbs after going to bed, and wakes me up." When asked if he had nightmares, patient said that he did have nightmares and awakened with his heart pounding.

The patient also complained about airplanes bothering him, and said that he did not like the hsopital. "Never wanted to be in the Hospital Corps--can't get casualties off of my mind," he said.

The patient was on an LST which was used to evacuate casualties from a beachhead. He handled casualties, carrying them aboard ship and administering first aid.

The interviewer asked what his dreams were about. "E" replied,

"I dream about casualties, or getting it myself--I'm afraid." Asked what he was afraid of, he said, "Afraid of being shot up--I would like to get rid of that fear, but can't. It comes back at night." Interviewer asked when his symptoms first appeared. "Aboard ship---I used to have arguments and fights, and would dream at night," patient explained.

The interviewer asked how he got along on his leave. Patient replied, "No good---the first few days were fine, but I think that my parents thought I was nuts. I had nightmares and screamed, and they all came in to see what was the matter. People came in and asked questions, and I would get up and leave the room, or get mad. I didn't even tell my parents about the casualties." When the interviewer asked if he wanted to go back to sea, patient was vehement in replying "No!" Asked if he wanted to go home, "E" replied "No," with the same feeling.

"E" was in no actual combat. He was a high school graduate and had one younger brother and one younger sister. He said that his family was "O.K.," and that his father was very proud of him, but "Why should he be? I was scared all the time, and I'm still scared."

Family and occupational history were negative.

Analytical Comment

The patient apparently had some experience in his background which was not revealed in the interview, which had conditioned him against hospitals and medical work. However, he had been assigned to the Hospital Corps and had served in it for two years. His emotional threshold in this area was very low. In his experience of handling casualties, he was presented with intense stimuli. Casualties of war, particularly in large numbers, are highly disturbing to nearly everyone and require definite accommodation on the part of the observer or hospital worker.

The process of adjustment in this case was basically one of withdrawal through regression. The patient recognizes that he is afraid, but he cannot consciously deal with his fear. His anxiety is expressed on the biological level. Exaggerated smooth muscle activity produces gastrointestinal disturbances. His aggressions and hostilities are expressed through nausea and vomiting. His craving for milk may be related to his insecurity and need of love, which are expressed on an infantile level. Palpitation of the heart and combat dreams indicate a state of anxiety.

Aboard ship, the patient's early symptoms were dreams and irritability (arguments and fighting), and after being separated from the group, psychosomatic symptoms developed.

Grinker and Spiegel¹ maintain that regression begins with the initial process of integration into the combat group. Such integration requires the abandonment of much mature individuality of the civilian. It means the substitution of a military superego for an individualized superego and this process is regressive. However, in the strong combat group, the serviceman obtains a gratification of his increased dependent needs from a strong fatherleader and from belonging to a group which supplies acceptable

Grinker and Spiegel, op. cit., pp. 21-36 and 357.

goals for his hostilities both through anticipated enemy action and through common intragroup patterns of friendly rivalry, argument, and "griping."

Case F, Motor Machinist's Mate, First Class Enlisted 6-23-42; 21 months combat duty; Guadalcanal and five other invasions Age, 33 Test scores: General Classification Test: 48 Mechanical Knowledge Test: 62 Electrical Knowledge Test: 50 Personal Inventory: 27 Diagnosis: Combat Fatigue

The patient did not appear to be depressed. He was smiling and very cooperative in the interview. Interviewer commented, "You look pretty well," and asked if he had any complaints. "F" replied, "I was all right until I went home on leave. After the first five days I broke down." Interviewer asked what he meant by "broke down." He explained, "I think I was living on nerve and I blew my top." When asked what happened, patient told about being in a bar and getting into a fight with a civilian. "He said something to me--I don't even remember what it was, but it didn't sound right and I hit him. I wanted to fight everybody." The interviewer asked if he had any other fights. "No," he said, "but almost. It's silly, but comments that I used to wouldn't of thought anything of, make me mad. I even told some officers off."

Queried as to physical complaints, "F" said, "I'm washed up. My nerves are gone. I'm shaky--shake all over. When I came to this hospital, my hands shook so I couldn't light a cigarette--couldn't hardly eat." "How are you now?", interviewer asked, and was told: "Better, but I'm tired all the time. Sometimes I get shaky and

afterwards I'm as limp as a rag,"

Interviewer asked if he had nightmares. "Just bad dreams," he said, "not like some of the guys have." When asked if he could eat all right, he replied: "No appetite, but I eat because a guy's got to eat to stay alive."

The subject of going back to sea was broached. "Don't think that I could take it," the patient said, and volunteered, "I had enough--got no nerve any more. Combat pictures get me." Interviewer asked if he had ever walked out of a movie. "F's" reply was: "Only went once down town, and then I had to leave. You know these pictures they show here? I wanted to leave, but stayed."

The patient asked if the interviewer wanted to know anything else. Interviewer suggested that he must be about ready to leave the hospital. "Yes," he said, "but I want some of this shore duty. That depends on the Board--21 months is a long time where I was, and I don't want to go back. What do you think my chances are?"

The patient was single, and had lived away from home for several years, working in machine shops. He had an older brother in the Army. He said his family was poor but "did all right with what we had." He seemed to be completely emancipated from home. Family history was apparently negative, and occupational history was good.

Analytical Comment

This man had been in the hospital several months, and had developed a good deal of insight. He was not depressed at the time of the interview. His statement that "I' had been living on nerve

and blew my top" may be the key to the psychodynamics involved. In terms of psychic energy, the patient had depleted his capacities. During twenty-one months of almost continuous combat, a process of adjustment through regression had been initiated. As long as he remained a part of a combat group, he found support which permitted regression in the form of direct expression of hostility without serious disorganization.

The often used phrase "blew my top" is descriptive of the direct, child-like aggressive behavior which occurs when the grati-fication of the ego, long deprived of love and affection, is frus-trated.

The patient apparently was an emotionally independent, mature person when he entered the Navy. His integration into the military group had taken place easily. This involved the gradual substitution of an externalized superego, based upon military standards, for his individualized superego.¹

When he returned to the States, he tried to cling to the combat-group superego. He continued to judge his conduct and that of his family and civilians by what the combat group would accept. His individual ego apparently had been completely depleted and superceded. The reintegration of his ego called for gratification from every source. When this was thwarted, as by the civilian in the bar, hostile, aggressive acts characteristic of adolescent or even infantile behavior resulted.

The patient's dreams were mild. They were probably related to mild guilt feelings which also were the result of the perpetuation

Grinker and Spiegel, op. cit., p. 161.

of the conflict-group superego, which could not sanction the safety and ease which he was then experiencing.

This case represents a type of patient whose major difficulty apparently is in the reintegration of the ego and superego, or, in sociological terms, the redefinition of self and the acquisition of new attitudes and values within a social frame of reference compatible with social situations in civilian life which demand suppression or redirection of aggressive behavior into culturally acceptable channels.

<u>Case G</u>, Seaman, First Class Enlisted 10-10-42; 15 months combat duty Age, 19 years Test scores: General Classification Test: 45 Mechanical Knowledge Test: 47 Electrical Knowledge Test: 40 Personal Inventory: 30 Diagnosis: Combat Fatigue

The patient appeared somewhat immature for his age. He had a sulky expression, and his face was pale. Occasionally his mouth twitched, as if he were on the verge of tears.

Interviewer asked where his home was. He said that he lived on a farm in Indiana. Asked if he had a good time on his leave, "G" replied, "Yes--at least I got some decent food." When asked if his mother was a good cook, he said that she was, but he seemed to resent the question.

Interviewer asked what kind of duty he had had. "G" replied that he had been a Seaman on an AKA. He had seen no actual comtact with the enemy, but had experienced one submarine "scare."

The interviewer asked how he happened to be in the hospital.

"G" said, "When I came back from leave, I couldn't eat the food--it's awful--worse than aboard ship. I vomited every time I tried to eat it. I turned in [to sick bay] and they sent me here."

The interviewer asked if there was anything else wrong with him. Patient told of severe pains in his back and proceeded to tell how he had hurt his back when he fell from a hay wagon when he was ten years old. Asked if it had bothered him before he got into the Navy, patient replied, "Not much, but I strained it aboard ship."

Queried about his sleeping, patient said, "Can't sleep because my back aches at night." Interviewer continued by asking if he had bad dreams. "Same dream every night," /"G" complained. When asked what it was, he countered with, "Well, not exactly the same." The interviewer asked if it occurred every night. Patient seemed to become more interested in talking about it and replied, "Well, almost. It's funny--something is always after me and I hide and am afraid to come out." When asked what was after him, patient said he did not know. "It's like a whirlwind." Asked where he hid, "G" went on to explain, "Sometimes I'm aboard ship; I run up and down ladders. Once I was in a locker; sometimes I'm in a dark corner, and am afraid to come out." Interviewer asked if he dreamed while at home. He said he did not "but sometimes aboard ship, and now, I dream almost every night." "Do your nerves bother you?", the interviewer asked. "Yeah," the patient replied. He was asked how they bothered him. "Officers and doctors make me nervous," he complained, and added, "I've never seen a good officer in the Navy. They order you around like a dog. Some of them aren't so hot themselves. What did they do before they got that gold braid? They

were probably a bunch of bell hops . . . " He continued these comments for a few minutes.

Asked if he wants to go back to sea, patient's emphatic reply was: "Hell, no!" Asked what he would like to do, patient answered readily, "I want to go home, like everybody else."

The interviewer asked more questions about his home. He was the younger of two boys. His older brother was 4-F. Patient had quit school in the second year of high school. Asked what his parents thought of his quitting, and he said his father was very angry, but his mother didn't care. He was asked why he quit school. His answer was vague--"Didn't like it--wanted to work."

Asked how they treated him in the hospital, patient said "It's the same--they (officers) don't give a damn what happens to you. I can't eat nothing--lost six pounds. What do they do--say I got combat fatigue. That's a laugh. I never been in no real combat," he added, sarcastically.

The family history indicates some instability. School history was poor.

Analytical Comment

The patient was an immature boy of 17 when he left school and enlisted in the Navy. He didn't like school and had been a poor student, at least one year retarded. His scores on the General Classification Test and on the Mechanical Knowledge Test and the Electrical Knowledge Test were all below average. Also, the fact that he was still a Seaman First Class after two years in the Navy, may indicate that he had made little progress. His tour of combat duty

had been relatively brief and uneventful.

Group morale, externally initiated and maintained, augmented by a certain amount of security derived from interpersonal relations within the combat group, had carried this immature boy through a mild period of combat duty. When he was faced with returning to combat duty, adjustment was sought primarily through somatic complaints.

The patient's hostility to officers follows the pattern of regressive behavior. His dreams were relatively mild, and indicated anxiety and regression. Some psychoanalysts would no doubt interpret the hiding "in a locker" and "in a dark corner" as regression to the protected environment of his mother's womb.

Anorexia and vomiting are common behavior associated with regression. The entire pattern of expression on a visceral level is infantile. The expression of pain in his back associated with an old injury is part of the pattern.

The syndrome presented in this case is more frequently identified with the neurotic conditions which appear in trainees, than with combat men. However, somatic complaints and particularly gastral disturbances are not uncommonly present in the behavior of men diagnosed combat fatigue. In combat fatigue, regression and expression of exaggerated emotional needs are more frequently on a conscious level and are expressed in verbalizations and in overt behavior.

The present case is illustrative of expression on both conscious and subconscious levels. The patient was apparently unable to intellectualize and rationalize the situation in a manner

acceptable to the ego. Being thus psychologically blocked, further expression occurs at the subconscious, visceral level.

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PART IV

SUMMATION AND GENERAL CONCLUSIONS

CHAPTER IX

SUMMARY AND CONCLUSIONS

Summary Relative to the Statistical Data

For the purpose of summarizing the statistical data, they will be considered in the three categories--primary factors, secondary factors, and stress factors.

Primary Factors

The statistical data indicate that the men of this study were somewhat older than the men of the Navy as a whole, and the age of the patients increased as the severity of the illness increased. However, the coefficient of contingency indicated that the association may have been due to chance.

As to intelligence, as measured by the General Classification Test, the distribution of test scores of the entire sample did not deviate significantly from the distribution for the entire Navy. The variation between the three groups, mild, moderate and severe combat fatigue, however, was statistically significant. Here it was found that there is a progressively wider distribution of scores from mild to severe, the severe group having a larger percentage in both the very high group (65 and above), and the lowest group (0-34).

The scores of the men of the entire sample on the Mechanical Knowledge Test were somewhat higher than the Navy average, and this

difference was statistically significant. There were no reliable differences between the three groups.

The scores received by the men of this study on the Electrical Knowledge Test did not vary significantly from the Navy distribution. Neither were there significant differences between the mild, moderate and severe groups. The coefficient of contingency indicated that this association may have been due to chance.

The distribution of Personal Inventory scores received by the men of this study were skewed toward the top, indicating personal maladjustment and this tendency became more pronounced from mild to severe, the severe group having a significantly higher percentage in the group of 40 and above.

Regarding amount of education, as measured by the number of years of schooling completed, the entire sample did not differ significantly from that of the Navy as a whole. However, the severe group did differ significantly from the other two groups by having a larger percentage in both the college class and the class 0-5 years of schooling. The coefficient of contingency indicated that the variation between groups represents a moderate but genuine association which is not due to chance.

A consideration of the civilian occupations of the men of this study revealed that the largest proportion of each group were in the unskilled class,¹ and the severe group contained a slightly larger percent of men from unskilled occupations than did the other two groups. The coefficient of contingency was not high enough to

1 Unskilled does not include agriculture, fishing, and logging.

indicate a valid association. Slightly over 18 percent of the entire sample indicated that they had no regular occupation. The largest percent in each group had worked on one job for two years or longer and the percentage of the severe group was somewhat higher than that of the other two groups. The coefficient of contingency indicated a genuine association between the three groups.

Most of the men of this study had not experienced serious accidents or physical injuries either in civilian life or in the Navy. However, slightly over half of the severe group had suffered physical injuries, most of which had occurred in civilian life. The coefficient of contingency indicated that the variation between groups is a genuine association, not due to chance. The severe group also had a higher proportion who had experienced serious illness in civilian life than had either of the other two groups and were more likely to describe this illness as "nervousness."

The data relative to marital status and number of dependents revealed that a progressively larger percent of each group from mild to severe were married, although the differences were not statistically significant and that a significantly larger percentage of the severe group had one or more dependents.

As to nationality background, it was found that about twothirds of each group were of native parents, and there were no significant differences between groups. Of those having one or both parents foreign born, the most frequent were: Polish, Italian, "Central European," and Canadian.

The data relative to the religious backgrounds of this

sample indicated that slightly over half of them were Protestant, whereas about 40 percent were Roman Catholic, and 2.4 percent were Jewish. There were no significant differences between groups. Apparently the sample contained a somewhat larger proportion of Roman Catholics than does the general population.

Secondary Factors

The statistical data indicate that the men of this study were from families which were larger than the average family in the United States, one-fourth of them having 5 or more siblings. Of those with 5 siblings, the severe group had a significantly larger percentage than did those with less severe combat fatigue. The mild and moderate groups had a significantly larger percentage who were youngest and oldest children. The severe group contained a significantly higher proportion of persons whose birth position was "other" than that of oldest, youngest, or only child. This finding is probably to be expected in view of the high percentage of this group with many siblings, as indicated above. Interestingly enough, the severe group also showed a greater tendency to be only children, but the difference was not reliable.

In the entire sample, slightly under half were from homes which had been broken by death, divorce, or separation. This percentage appears to be somewhat larger than would be found in the population as a whole.

One-half of the sample was from the eastern section of the United States. The largest proportion of the entire group came from families in which the fathers were employed in semi-skilled and skilled occupations in urban areas. Only about one-fourth were from rural areas and a very small percentage of their fathers were farmers.

The data reveal that the patients' mothers had attended school somewhat longer than had their fathers, and only about one in ten of their mothers worked outside the home. Over three-fourths of the men of this study indicated that other members of their families were in good health. There were no significant differences between groups.

Stress Factors

The men of this study, all diagnosed combat fatigue, probably served as long in the Navy and experienced as much combat duty as did the average Navy man.

There were, however, significant differences between the three groups--mild, moderate, and severe combat fatigue. Severity of the illness increased with the length of service. Over four-fifths of the severe group and nearly half of the moderate group had served in the Navy for more than two years, whereas less than three percent of the mild group had served over two years.

The same trend was found in considering the length of combat duty. However, here the data revealed that it was the moderate group which contained a significantly larger percentage of men in the longer periods of combat duty. One-fifth of the moderate group had served in combat areas for longer than two years, as compared with a very small percent of the mild group, and none of the severe group. Also, it should be noted that one out of ten of the moderate

group were survivors, whereas none of the other two groups were classified as survivors.

The coefficient of contingency indicated that the differences observed relative to length of duty and length of combat were valid associations not due to chance.

Statistical analysis has indicated the association of certain social factors with combat fatigue and in certain instances, with the severity of the illness.

With respect to the personal, more direct (primary) factors, combat fatigue cases appear to have the following characteristics: age somewhat above the Navy average, average intelligence, average school attainment, unskilled work experience, and a disproportionately high incidence of Catholicism.

The characteristics of the combat fatigue cases in the sample with respect to the background (secondary) factors were: large families; frequently broken by death, divorce, or separation; native born parents; fathers skilled or semi-skilled workmen; urban residence, most frequently in the eastern section of the United States. When these primary and secondary factors are examined, a configuration of social factors associated with combat fatigue is in evidence.

The severe group differed significantly from the mild and moderate groups in several respects. The men in the severe group were from even larger families, or were more often only children, their fathers were more apt to be in the managerial, technical and professional occupational groups, and the men themselves were older, more frequently married and had a larger number of dependents than

the other two groups. They were more often either of extremely high intelligence, frequently having attended college, or were at the other extreme, of low intelligence, with little schooling. They had experienced more accidents and injuries in civilian life and fewer sinkings and injuries in the Navy than had the mild and moderate groups, but had experienced a significantly shorter period of combat duty than had the mild and moderate groups.

The severe group is thus set off from the mild and moderate groups. In some instances this is simply a more extreme variation in factors which are also associated with mild and moderate combat fatigue; in other instances the difference lies in the presence of factors which are not associated with the other two groups. This latter type of variation is best illustrated by the high proportion of men in the severe group who had had early serious illnesses, trouble with "nervousness," and were somewhat more likely to be only children. These are factors which have long been considered to be related to personality disorders and may indicate that this group had pre-existing personality deviations which set them apart from typical combat fatigue, and indicate that these cases might be associated with other neuropsychiatric conditions. Also, the severity of the illness was disproportional to the amount of stress experienced when stress is measured by length of combat duty and survivor's experience.

Summary Relative to the Case Studies

The cases presented in this study have indicated the nature of the precipitating situations in relation to combat fatigue and have illustrated to a certain extent the psychodynamics of personal and interpersonal relationships. The term "personal" refers to intrapersonal phenomena, the active factors of which can possibly be best understood in terms of ego dynamics. The term "interpersonal" refers to the group relationships of the individual and may advantageously be considered as a morale factor. These factors are considered in an interactional frame of reference.

The group factor was implicitly or explicitly involved in each case. Each man had experienced a series of intermittent group relationships beginning with the severing of his family ties and other peace-time group relationships, and being terminated either with the breaking up of the combat group at sea or by separation from it upon being returned to the States. An ego involvement accompanied each group relationship.

The cases have illustrated that a loss of personal security and increased anxiety develop out of precipitating situations characterized by weakening or actual severing of identification with the combat group. This may be the result of injury or death of members of the group, particularly leaders, in combat or in the sinking of the ship, as apparently was true in cases B, D, and E, or may occur as a result of transfer, as was illustrated in case A. Frequently the break did not occur until the man was separated from the crew

upon being returned to this country, as shown in cases C, F, and G.

The major concomitant psychological process illustrated by the cases is that of regression. This process of regression may be initiated at the time the man enters the service. The initial process of integration within the military group consists in abandonment of much of the mature individuality expressed in civilian life. This means the substitution of a regimented "military superego" based on military standards and goals for an individualized "civilian superego."¹

Regression in psychoanalytic theory refers to the return to infantile phases of libidinal organization. It is not necessarily used in this sense here, although in cases C, E, and G, apparently infantile behavior was being expressed. In a more general sense, regression refers to the resumption, under stress, of earlier and experientially more satisfactory modes of behavior, i. e., cases A, B, and F.

Anxiety which is present in some degree in combat situations, calls for adaptive powers which the individual may be unable to produce. Regression to an earlier mode of behavior that once was successful is one alternative. Grinker and Spiegel have pointed out that regression is actually the less drastic of two evils. When the man is caught between unendurable anxiety and unmodifiable hardships, he is confronted with the catastrophic possibility of denying the presence of the horrible reality by severing all contact with it, that is, by retreating into a psychosis. His only alternative is

Grinker and Spiegel, op. cit., p. 357.

to adopt regressive patterns of behavior.^{1,2}

Regression in a member of a combat group is not obvious to either the regressed person or to the group. The combat group provides channelization of hostile behavior and also lends strength to the regressed individual through the mechanism of transference, by which the desires, feelings, and relationships, originally experienced by him with regard to his parents and siblings, are transferred to members of the group. Thus, as long as he is carried along, as a child of the group, he experiences a certain amount of security associated with childhood. However, when the regressed individual is separated from the group, his infantile regression becomes obvious. This is most clearly illustrated by the behavior of men who have returned home on leave, as in cases A, C, and G.

At this point, also, ego conflicts arise. "Unfortunately these regressive patterns are rarely compatible with other selfrespecting and persistent ego forces; and they are frowned on by the environment for they are incompatible with the person's stage of development."³ The patient's increased dependent needs are frustrated upon his return home. Reaction to frustration through aggressive and hostile behavior, which may have been acceptable to the military superego, but which is not acceptable in civilian situations, brings him into conflict with both himself and other people,

> 1 <u>Ibid</u>., p. 249.

²See Masserman, <u>op</u>. <u>cit</u>., for results of remarkable work with experimentally neurotic cats, including "regressive behavior."

³Grinker and Spiegel, <u>op</u>. <u>cit</u>., p. 249.

as in cases A, E, and F. Such conflict is likely to result in guilt feelings which may lead to further regression or depressed states, as in case A. Self-punishment in combat dreams and in masochistic tendencies may also develop, i.e., cases B and D.

There are of course many other patterns of behavior related to regression. Case C illustrates simple aggressive misbehavior, disregarding authority in a rather exhibitionistic way, by drinking on the job. The use of alcohol provides a temporary escape from frustration.

The expression of psychopathology in combat fatigue is most frequently on a partially conscious level. The patient's symptoms are expressed in verbalizations and in overt behavior. Often his behavior is highly intellectualized and well rationalized, as in cases C, D, and F. In these cases the man is free from psychosomatic complaints. Adjustment may be sought through somatic symptoms, and regression exhibited on an infantile, visceral level, as in cases G and E. Anorexia and vomiting are often associated with regression. Organ and process consciousness indicate, according to psychoanalytic theory, the return to infantile phases of libidinal organization, i. e., narcissistic, oral, or anal.

The cases have indicated a relationship between the man's previous personality organization and his illness. However, this relationship is not of a predispositional nature in the sense of involving inherited or ingrained behavior patterns. This relationship is of more significance in determining modes of expression of symptoms than it is in determining whether or not symptoms will be

expressed. Cases C and E apparently show a close relationship between old behavior patterns and the mode of expression of symptoms of combat fatigue.

Stability of personality must be considered as a dynamic, individual characteristic. Stability varies with the specific manner in which individuals react to specific stressful situations. Nevertheless, when no objective evidence of previous personality maladjustment is present, operationally, the individual is adjusted and may be said to have a "stable personality," as in cases A, B, D, and F.

The personality factor must be considered as an interacting factor in a total situation. The adjustment of the individual will depend upon the behavior potentialities acquired by the individual through his unique experiences. These potentialities comprise the individual's behavior reserve.

When a man's potentials for adjustment are not sufficient to effect adjustment in such a way as to maintain his emotional and intellectual equilibrium at a level compatible with his maturational and social development, one of the most frequent psychological mechanisms adopted by the individual in his effort to maintain his sanity and find security in an unalterable environment, is the readoption of behavior patterns associated with earlier and more satisfactory experiences.

The case studies of men diagnosed combat fatigue in this investigation illustrate the hypothesis that no personality pattern or life organization is a certain guard against combat fatigue.
Likewise, no particular crisis situation or series of situations always produces symptoms of combat fatigue. The psychopathology of combat fatigue is thus considered in an interactional frame of reference which considers the individual as a social-organic-psychological unity.

The cases indicate that the individual's unique experience in the interaction of his total personality with combat situations resulted in personality modifications. Symptoms of combat fatigue were exhibited most frequently by the men of this study when this altered (regressed) personality reacted to combat which threatened or destroyed group solidarity, or to separation from the combat group, or to frustrations and difficulties encountered while at home on leave, or upon the termination of leave and reassignment to duty.

Social Factors in Combat Fatigue

This study has dealt with social factors in two areas: first, a recurring configuration of factors associated with combat fatigue and with the severity of the illness has been established by statistical analysis of certain social data in the individuals' background of experience; and secondly, by a consideration of social factors in precipitating situations, the structure of the combatgroup, the nature of interpersonal relations and group dynamics have been found to be phenomena which have a definite bearing upon the individual's reaction to stress.

It is important that these social factors be understood in their proper setting and relationships. It has been pointed out that in the study of personal disorganization, the individual must be considered as a social-organic-psychological unity. Social factors are relevant as interacting elements and interrelated patterns in this frame of reference.

The data indicate that a certain configuration of factors frequently occurred in the backgrounds of the men of this study. These factors, <u>per se</u>, cannot be considered as direct causal factors in relation to combat fatigue. Each factor may be so defined by the individual as to be either a factor in personal stability or personal instability. Apparently this configuration of factors in complex relationship offers more opportunity for experiences which give rise to definition of situations which may be contributory to personal instability than would another configuration of factors.

Thus, these social-background factors and personality factors, at both the conscious and subconscious levels, become active elements in relation to particular social situations. Social factors, then, must be considered as interacting elements in a total situation. This is best illustrated in the present study by the participation of the men in a series of group relationships.

The group structure may be characterized as the memberleader type of interdependence in most instances, although the member-member type of group frequently came into being as subgroups. There was a high state of dependence upon a rather authoritarian type of leadership. When this leadership was lost, the group disintegrated. On the other hand, in the member-member type of group

structure, based upon interdependence of activity, loss of members or separation from the group also resulted in low morale.

The psychodynamics in these situations, involving identification, transference, ego conflicts, regression and other psychological mechanisms and concepts, have previously been discussed. The most frequent pattern associated with combat fatigue was: identification with the combat-group and its leader; regression under stress, resulting in aggressive behavior which was satisfactorily channelized in the combat-group; disruption of the group, followed by unadjustive behavior in new group situations, either military or civilian.

Generalizations and Implications

Certain generalizations seem to be permissable upon the basis of the findings of this study.

1. Behavior of the individual under stress of combat is contingent upon, and adaptive to, his definition of the total situation.

2. The individual's interpretation of the total situation is based upon his capacities¹ as organized and interpreted by previously existing personality patterns and upon the immediate character of interpersonal relations in the combat group.

3. Both the individual's tolerance for stress as derived from past experience and factors of group dynamics tend to modify felt stress.

Capacities, as used here, refers to the total adjustive potentialities of the individual.

4. Personality traits and patterns find their importance in combat fatigue when they become interacting factors in group situations.

5. No particular personality type is a certain guard against combat fatigue; and likewise, no particular stressful situation always produces combat fatigue.

6. Pre-existing personality deviations are apparently more frequently related to severe combat fatigue than to mild and moderate combat fatigue.¹

7. In general, felt stress increases as group cohesion diminishes.

8. When stress becomes so intense that the individual's capacities, as they are related to the group, are inadequate to maintain personal equilibrium, behavior tends toward substitutive and symbolic satisfactions.

9. Adaptive patterns of behavior involving substitutive and symbolic behavior may take many forms, but in combat fatigue, the most common is behavior associated with anxiety and regression.

10. A partially regressed personality found more or less satisfactory channelization of behavior in the combat-group, but experienced both interpersonal and intrapersonal conflict in group situations when returned to civilian life.

Certain implications arise from this study. If combat

¹ The data suggest that the severe group may be less representative of combat fatigue than are the mild and moderate groups in this study. See p. 130.

fatigue is largely situational, being closely related to the kinds of interpersonal relations existing in social groups, then it may be assumed that its incidence could be controlled by modification of group relationships. In military groups, aleatory elements make it difficult to maintain a controlled situation. However, an understanding of the relationship of group dynamics to emotional stability as demonstrated in military organizations may be utilized in less fortuitous situations in civilian life. This knowledge of the relationship of social factors to combat fatigue may provide the basis for the formulation of new concepts, theories, or laws, which will have important implications in industry, education, and other areas of social endeavor in modern society. APPENDIX I

DOCUMENT I

PROCESSING OF SPECIAL CASES

Designation of certain men and groups of men as special cases, and special handling of these cases by Specialists in Classification, trained in psychiatric interviewing, are a part of the classification procedure at this amphibious base. The end toward which this work is orientated is, first, toward discovering psychological variants and, second, to make such disposition of them as is in the best interests of the Navy and the welfare of the men.

Special cases include men returning from combat duty for reassignment to further amphibious duty, men scoring over a "cutting score" on the Personal Inventory questionnaire, illiterates, and men referred for special interview at the option of regular interviewers, officers, or other sources. Emphasizing the importance of temperamental fitness of men engaged in amphibious operations, all such cases are scheduled for a screening interview. If further determination of the man's qualifications is required, he is then referred to the Base Psychiatrist.

The two screening interviewers, designated as Special Case Technicians, were part of a group trained through the cooperation of the National Defense Research Council, Panel of Applied Psychology, and Lt. Comdr. H. W. Williams, Psychiatrist for ComPhibTraLant. The group was selected from the various amphibious classification offices on the basis of each Specialist's previous training in psychology.

Men with combat experience are screened primarily for signs of

combat fatigue. Care is taken not to handle them as sick men nor as constitutional psychopaths. Those men showing a sufficient number of symptoms are then referred to the psychiatrist. The "Q" card and a Case History Form, completed during the interview by the Special Case Technician, accompany each man. Those who are diagnosed as having mild combat fatigue are permitted to enter the training program. Since these men are assigned to crews at the beginning of the training period, it is considered they will have ample time for recovery before being exposed to further combat experiences. In some instances the mild cases may be seen again by the psychiatrist before they complete the LSM (Landing Ship Medium), training program. The case history, including family data, environmental, occupational and educational backgrounds and the symptoms elicited, is returned at the time of re-interview.

Men diagnosed by the psychiatrist as suffering from moderate combat fatigue are recommended by the Medical Board for a minimum of six months shore duty. A small percentage, suffering from severe combat fatigue, are hospitalized for further treatment and disposition. A report, with diagnosis and recommendation of the psychiatrist, is submitted to the Classification Officer who then appends his recommendation.

Screening of combat men reached its peak during the months of December, 1944 and January, 1945. During the two months, 2093 men were given special interviews. Of these, 541 were referred to the psychiatrist. Of those referred, 264, or approximately 50 percent, were disqualified for amphibious duty.

The second largest group of men receiving special interviews is made up of those men who have been identified by the Personal Inventory

questionnaire. Here are found men who may have difficulty in adjusting to the training program and further duty. They may be grouped roughly as: 1, men with complaints of a psychoneurotic nature, 2, those suffering from physical illness or injuries, and, 3, those with simple personality maladjustments. This group is interviewed and processed in much the same manner as are combat men. If they are found by the psychiatrist to be disqualified for the duty to which they are assigned, appropriate recommendations for transfer or hospitalization are made in the Medical Board's report. Those who appear primarily to have physical ailments are referred to the dispensary.

All men having a score below 25 on the General Classification Test are referred for special interview as possible illiterates. They are given a reading test and the Kent Oral Emergency Test. When it is thought advisable, and time permits, the full scale Wechsler Bellevue Test of Intelligence is given. The aim of this type of interview is to determine whether or not the man can read and write English and also to distinguish between illiteracy and mental deficiency. If the man is found to be illiterate or near-illiterate but apparently is well enough adjusted and motivated to carry on the duties likely to be assigned aboard ship, he is permitted to enter the training program. Assignment of one illiterate, not mentally deficient, to each crew, is permitted. If mental deficiency is indicated, the man is referred to the psychiatrist. Of a total of 212 referred as possible illiterates, 103 were designated as illiterates.

From 10 June 1944, date of establishment of the Special Case Department, through 31 January 1945, the Classification Center processed 28,480 men. Of this total, 5119 men were interviewed by Special Case

Technicians. Combat referrals constituted 3290, or 64 percent; 1094, or 21 percent, were P.I. referrals; 523 were referred by other sources, 212 as possible illiterates. Of the 5119 men interviewed, 1400 were referred to the psychiatrist, of which 497 were disqualified. Disqualifications amounted to 35.5 percent of all men referred to the psychiatrist.

It is felt that the value of the program of special screening to the Amphibious Forces is significant. Hundreds of men, after thorough processing, including psychiatric examinations by the Base Psychiatrist, have been eliminated from the program; and others, through counseling and therapy, have been retained, who might otherwise have been lost.

REFERAL A	ND DISPOS	ITION, 10	JUNE 1944	TO 1 FEF	RUARY 194	15		
Type of Referral	Specia Inter	l Case views	Ref. by S Technicis Psychiatr	pec.Case ins to fist	Disque t Psychi	alified oy Latrist	Hospit t Psychi	talized oy Latrist
:	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Men referred on the basis óf pre- vious combat duty	3,290	64.3	846	25.7	350*	7. L4	え	2.8
Men referred on the basis of per- sonal inventory score	1,094	21.4	314	28.7	54*	17.2	15	4•8
Men referred from other sources,i.e., officers of crews & reg. inter- viewers	523	10.2	240	45 . 9	108*	45 - 0	25	10.4
Men referred on the basis of the GCT score as illiterates	212	4•1	103 or 48 Special (Chiatrist These cas	3.6 percen 2ase Inter t only whe ses are in	t were de viewers. n psychis	ssignated Illiterat itric fact ove. unde	as illit es refer ors are r "other	cerates by rred to psy- involved. sources."
Total men referred for special case interview	5,119	100.0	1,400	27.3	512*	36.6	64	4.5
*Includes those hospitalized								

NUMBER AND PERCENT OF MEN PROCESSED BY SPECIAL CASE TECHNICIANS, BY TYPE OF

TABLE 29¹

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lFrom Document I, p. 142.

APPENDIX II

CASE HISTORY FORM

I.	IDENTIFYING	DATA:

Name	Rate	Service Number
Date of Enlistment	Date of Birth	Age
Place of Birth	Race	_ Nationality
Marital Status	Number of Depende	nts Religious Pref
Present Billet	Present Quart	ers

II. CASE STATEMENT OF PROBLEM:

1. Statement of problem by initial interviewer:

- 2. Subject's statement of problem:
- 3. Statement of problem by Classification Specialists:
- 4. History of problem:

III. FAMILY HISTORY AND ENVIRONMENT:

Che	eck any of the following which are applicable: Yes	
1.	Father living No Parents still married Mother living Yes No	Parents divorced Father re-married Mother re-married
	Father's name	Father's age
	Father's address	Mother's age
	Father's business or occupation:	
	Name of firm or employer:	
	Mother's present occupation:	

Case	e h	istory form (continu	ued)							
1	Mot	h er' s occupat	ion bef	ore marr	iage:	******					
]	Fat	her's birthpl	ace:			Mother's	birth	place:			-
1	Fat	her's educati	.on:		·	Mother's	educat	tion: _			-
2.1	Bro	thers and sis	ters:								-
]	Name S (M o	ex rF)	Educati (highes grade)	on t	Marrie (yes or :	d (no) p	occupat loyed,	ion (give ion o	if une usual r trai	m- .ning)
]	1							-			
2	2.										
3	3.										
4	+•										
Ē	ŏ.										
6	5.										
7	7.										
3. C	the	er relatives	or pers	ons if pe	ertine	ent:					
4. E	Envi	ironmental in	fluence	9:							
IV.	EDI	JCATIONAL HIS	TORY:								
	1.	Civilian:									
		School.	Name a Locat:	and N ion	lajo r	subject	Degre	e Fi	rom	То	
		High School									
		College									
		Other									

Case history form (continued)

2. Naval: list the various schools patient has attended while in the Navy. Begin with the last school and list backwards.

the second statement of the second				
School	Base	Rate at Graduation	From	То
			and a state of the	

3. Extra-curricular activities: a. Civilian:

b. Naval:

4. Educational plans and ambitions: a. Civilian:

- b. Naval:
- 5. Navy Test Scores:

GCT, R	leading,	Arithmetic	t	<u>M</u> .K	EK,
Spelling	, Radio	, PI _		W.B.	
Verbal I.Q.	, Total	I.Q	, Other	Tests	•

i

V. OCCUPATIONAL HISTORY:

1. Naval duties: List the various duties patient has performed in service. Begin with the present duty and list backwards. Use other side if more space is needed.

Base	Specific Duties	Rank	From	То
	7.6 s.			

Case History Form (continued)

2. Civilian Duties: list the various jobs patient has performed in civilian life. Begin with the last job and list backwards. Use other side if space is needed.

Place	Specific Duties	Title	From	То
1				
			1	

- VI. <u>PERSONAL HISTORY</u>: (record <u>verbatim</u> as much as possible)
 - 1. What serious illnesses has patient had?
 - 2. What serious accidents has patient had?
 - 3. What operations has patient had?
 - 4. Interviewer's comments:

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