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REPORT NUMBER: 67-7

American Journal of Psychiatry

NAVY MEDICAL
NEUROPSYCHIATRIC RESEARCH UNIT
SAN DIEGO, CALIFORNIA 92152

BUREAU OF MEDICINE AND SURGERY DEPARTMENT OF THE NAVY
WASHINGTON, D.C. 20390

THE AMERICAN JOURNAL OF PSYCHIATRY

Hospital Ship Psychiatry in a War Zone

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The hospital ship Repose *has provided combat-supportive medical services for U. S. forces in Viet Nam, receiving casualties evacuated directly from the field medical units as well as patients referred from the major hospitals ashore. Although the psychiatric patient population aboard was similar in many respects to that at any other military hospital, the function of the ship as an intermediate echelon of psychiatric treatment in the war zone helped to maintain a strong back-to-duty orientation, and 50 percent of all psychiatric patients taken aboard were returned to full duty.*

IN FEBRUARY 1966 the U. S. Navy hospital ship *Repose* arrived off the coast of Viet Nam and began to furnish medical services for Marine and Navy forces in the I Corps area. This vessel was the first and until recently the only hospital ship to function in a combat support role since the Korean War, and her unique situation furnished opportunity for a specialized study of psychiatric problems in the U. S. military population involved in the Southeast Asian conflict. This report details the results of a study of demographic variables and clinical features of psychiatric patients hospitalized aboard *Repose* during the initial seven months of her operations off Viet Nam.

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Clinical Facilities and Personnel

The psychiatric unit aboard the *Repose* was a single ward in two adjoining compartments, containing a total of 48 functioning beds. The staff consisted of one psychiatrist, one psychiatric nurse, and nine hospital corpsmen. This was an open, unlocked unit, and the patients were allowed freedom of movement about the ship commensurate with their degree of illness and responsibility. Treatment methods included individual and group psychotherapy and medications. No somatic therapy was done, and psychotherapy was generally of a short-term type.

The patient census fluctuated greatly. Usually there were 12 to 15 patients on the ward, although on occasion the census rose to as high as 35. Length of hospitalization was also quite variable, ranging between extremes of overnight and 60 days. Over a representative two-month period the mean length of inpatient care was 13.5 days.

Operational Patterns and Intake Sources

During the seven-month period under consideration the *Repose* served two medical functions. Much of the time she steamed in a scheduled pattern and received patients sent from the major hospitals ashore. These patients were referred by specialists at those facilities, who had initially received them from the field medical units. The ship then functioned as a third echelon of treatment. Frequently, however, the ship furnished direct combat support of Marine

operations, and casualties were evacuated directly from the medical units in the field with no previous specialty evaluation, thereby placing the *Repose* in the role of second echelon treatment.

Of the 143 psychiatric patients in this study, 77 (54 percent) were referred for hospitalization by psychiatrists stationed ashore with the Marines. Sixty-six (46 percent) arrived aboard with no initial psychiatric contact elsewhere. One hundred and five Marine and 38 Navy personnel were psychiatric inpatients during this period, the Navy patients coming from both units ashore and ships operating in the area. Repair and upkeep of the ship necessitated several lengthy departures from the war zone during this initial period of operations. Because of all these factors there was great fluctuation in rate of patient intake, but while on station there was a mean admission rate of 1.7 per day.

Method

For purposes of study demographic variables were extracted and compiled on the initial group of 143 hospitalized patients, particularly in relationship to diagnostic categories. Three basic categories were utilized: character and behavior disorder, psychoneurotic reaction, and psychotic illness. In the total patient population 67 percent were classified as character and behavior disorder, 20 percent as psychoneurotic, and 13 percent as psychotic (Table 1).

Results

Character and behavior disorder. These patients had a mean age of 21.4 years. A disproportionate number were in the pay grade of E-2 (private first class or seaman apprentice). The sample was characterized by short length of service. Sixty-five percent were unmarried. Excited, agitated, or violent behavior was noted in 45 percent of these cases. A history of civilian and military disciplinary problems tended to be characteristic of this group. Sixty-three percent of these men had been in active combat, and in 49 percent combat was judged to be a major factor in precipitating hospitalization (Figure 1).

Psychoneurotic disorder. These patients had a mean age of 25 years and were characteristically in the pay grade of E-4 and above with more than three years of service. Forty-eight percent were unmarried. Sixty-one percent reported somatic complaints, and 54 percent had significant depressive symptoms. Only 18 percent had a history of agitation or violence. Seventy-nine percent had been in combat, and this stress was felt to be a major precipitating factor in the hospitalization of 47 percent of this group.

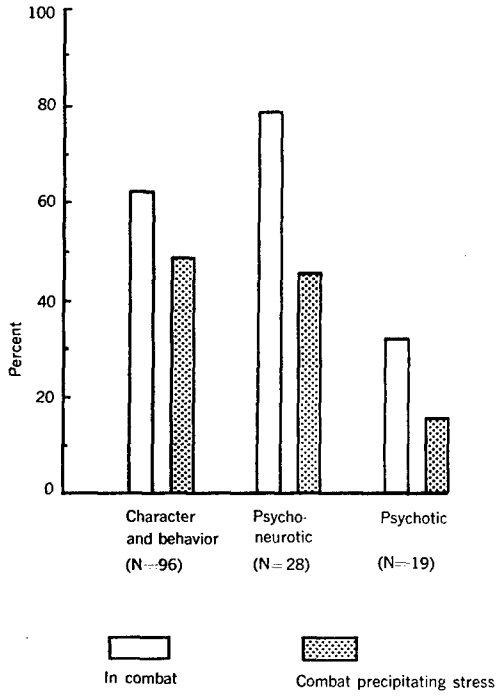
Psychotic disorder. These patients had a mean age of 22.6; a relatively high proportion were in the pay grades of E-3 and E-4. Seventy-seven percent were single, an apparently disproportionate number after age differences were taken into account. Ninety

TABLE 1

Distribution by Age and Diagnostic Categories of 143 Psychiatric Patients Admitted Aboard USS Repose

AGE (YEARS)	CHARACTER AND BEHAVIOR DISORDER		PSYCHONEUROTIC DISORDER		PSYCHOTIC DISORDER		TOTAL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
46-50	1	1.0					1	.7
41-45			1	3.6			1	.7
36-40	1	1.0	2	7.1			3	2.1
31-35	1	1.0	3	10.7	2	10.5	6	4.2
26-30	5	5.2	4	14.3	2	10.5	11	7.7
21-25	36	37.5	7	25.0	10	52.6	53	37.1
17-20	52	54.2	11	39.3	5	26.3	68	47.5
Total	96	100.0	28	100.0	19	100.0	143	100.0
Mean age	21.4		25.0		22.6			

FIGURE 1
Percent of Hospital Ship Psychiatric Patients Who Had Been in Active Combat and Percent for Whom Combat Was a Significant Precipitating Stress



percent manifested overt thought disorders, and 63 percent had perceptual disturbances to the point of hallucinations. Thirty-two percent had paranoid ideation; 53 percent showed hostility by suspiciousness, irritability, or menacing behavior; and 18 percent had a history of excited or violent behavior. Sixty-three percent were apathetic and withdrawn.

Of this group only 32 percent had been in combat, and combat was judged to be a significant precipitating stress in only 16 percent.

Other variables. Suicidal attempts and threats were relatively infrequent in this sample (eight percent), as were homosexual problems or concerns (four percent). Only six patients reported homosexual preoccupations, and three of these were psychotic.

In comparing the three diagnostic categories there were no significant statistical differences in region of birth, previous psychiatric contacts, or educational level. Forty-three percent of the total sample had completed high school. There were no differences in length of time in the war zone and no differences in proportions of Navy and Marine Corps personnel by diagnosis.

Thirty percent of the total sample reported significant marital problems with no diagnostic differentiation. Combat wounds were judged to be a major precipitating factor in six percent, and these occurred mostly in the character and behavior disorder group.

Treatment and Disposition

Of the character and behavior disorder group 54 percent received medications during the course of their hospitalization. Fifty-two percent were eventually returned to full duty, 37 percent were evacuated for medical administrative action, and 11 percent had some other form of disposition (Table 2).

Eighty-two percent of the psychoneurotic patients were treated with drugs. Seventy-five percent were returned to full duty and 25 percent were evacuated out of the combat zone.

Of the psychotic patients, 90 percent were treated with medications and all were evacuated to hospitals in the United States for additional treatment and disposition.

Discussion

The above figures indicate that the majority of psychiatric patients treated aboard the *Repose* in the war area were similar to those in other military hospitals. For example, the proportions of major diagnostic categories among 470 patients at a large naval hospital in the United States were: character and behavior disorders, 69 percent; psychoneurotic, 23 percent; and psychotic, eight percent. Character and behavior disorders predominated, as is true of the general military psychiatric population. For purposes of this initial study the personality disorder category included those with the diagnosis of situational reaction.

This sample of combat zone patients presented certain unique characteristics, however. Combat stress was judged to be a major factor in precipitating symptoms in 47 percent of the psychoneurotics and in 49 percent of the character and behavior disorders. It appeared that many of these patients might have avoided hospitalization

TABLE 2

Distributions for Disposition and Diagnostic Categories of 143 Psychiatric Patients Admitted Aboard USS Repose

DISPOSITION	CHARACTER AND BEHAVIOR DISORDER		PSYCHO-NEUROTIC DISORDER		PSYCHOTIC DISORDER		TOTAL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
Full duty	50	52.1	21	75.0			71	49.6
To duty recommending administrative action or discharge	4	4.2					4	2.8
Transfer to naval hospital	35	36.5	7	25.0	19	100.0	61	42.7
Return to limited duty	1	1.0					1	.7
Desertion	1	1.0					1	.7
Other	5	5.2					5	3.5
Total	96	100.0	28	100.0	19	100.0	143	100.0

if they had not had traumatic combat experiences, their basic psychoneurotic or characterologic problems notwithstanding.

In psychotic patients, however, the stress of combat was relatively unimportant. Only 32 percent had been in combat, and in only 16 percent did combat appear to be a precipitating factor in illness. As was predictable from prior studies, the incidence of hospitalization for psychosis was less influenced by external factors than the incidence of hospitalization for psychoneurosis or character disorder(1).

Relative infrequency of suicidal attempts and threats were characteristic of this combat zone psychiatric population. In other military hospitals these are more commonly encountered problems. For example, 24 percent of the patient sample in the Navy hospital in the continental United States previously mentioned had made suicide threats, gestures, or attempts. It is speculated that the externalization of aggression in combat is important in decreasing the comparative frequency of self-directed violence. Thirty-nine percent of the total patient group manifested agitated and/or violent behavior, frequently of an aggressive nature; and hostility was a common finding in all except psychoneurotic cases. Depressive symptoms were most common in psychoneurotic patients (54 percent) but also occurred in a large number of character disorders.

The management of aggressive manifestations is of particular importance in the treatment of combat zone patients. There is situational approval of external aggressive expression. Such aggressive behavior is apparently accompanied by a decrease in suicidal attempts and threats. Yet there are many who cannot tolerate such externalization of aggression and who internalize their hostility and develop a depression. The psychodynamics of aggression was the major area of therapeutic attention in both group and individual sessions on the *Repose*.

In this group of patients there were very few with homosexual problems or similar concerns; this finding coincides with reports from psychiatrists stationed with the Marine units ashore. It appears that this chronic military problem is less frequent in combat than in garrison. This may be a result of the realistic external stress of war and, again, the encouragement of overt and aggressive activity which partially compensates for the lack of sexual outlet. Also the latent homosexual undertones in the intimate and socially acceptable "buddy" relationships among combat troops may decrease the need for more overt expression.

Seventy-five percent of the psychoneurotic and 52 percent of the character disorder patients were returned to full duty. All psychotic cases were evacuated, however; and the group returned to full duty was 50 percent of the total hospitalized. As might be expected, this is a lower figure than that of the psychiatric units in the field, but it is

a higher rate than that of hospitals geographically removed from the war area.

It is well known that the farther a psychiatric casualty is removed from combat, the more difficult it is to return him to duty. The position of the hospital ship psychiatric facility is that of an intermediate echelon of treatment between the field and the out-of-theater hospital. Because of geographical and psychological involvement in the combat zone a number of patients who require longer care than can be given ashore can be treated on the ship and returned to their units, whereas if they had been evacuated out-of-country the likelihood of return to duty is much less. Such salvage of combat manpower is, of course, a primary mission of military psychiatry.

A strong back-to-duty orientation was maintained on the ward. Those patients, primarily psychotic, who obviously were going to have to be evacuated were usually transferred after four or five days of treatment designed to control their florid psychosis. An attempt was made to have patients who were to return to duty in the majority on the ward at any one time.

Group therapy sessions, frequently led by hospital corpsmen who are neuropsychiatric technicians, were held daily. In both individual and group therapy, discussion of combat of course predominated and it was difficult to get beyond this topic in therapeutic work. Ventilation, discussion, suggestion, persuasion, and support were the major therapeutic devices employed. All the discussions were strongly reality oriented. War is all too real and one cannot escape from reality—this point was brought home repeatedly.

Drug therapy was also employed with good success. This is the first war since the introduction of phenothiazine drugs, and they proved to be very useful indeed. Any acute combat syndrome—almost regardless of symptoms, including acute agitated depression, anxiety reaction, hysterical episodes, and psychosomatic problems—seemed to be largely ameliorated within 48 hours by the use of very heavy doses of chlorpromazine coupled with nighttime sodium amobarbital sedation. After 48 hours, medication could be drastically reduced or even stopped and psychotherapy begun without relapse.

A major problem in ward management, not encountered to so great a degree in ordinary hospital practice, was the extreme difficulty in finding useful tasks to keep the patients occupied after the initial stage of hospitalization had passed. The patients frequently had too much time to brood, and this idleness seemed to increase their anxiety.

The general ward atmosphere was different in several ways from that prevailing in Navy hospitals within the United States. In the first place, antisocial or acting out behavior, so common in a peacetime ward with character disorder patients, was virtually absent on the hospital ship. Secondly, the general tone of the ward was that of marked depression, much more so than in an ordinary Navy psychiatric ward. This depressed ambience seemed to be due to the large number of depressed patients (a characteristic Viet Nam psychiatric syndrome) and to the pervading sense of returning to combat and possible death or mutilation. Underneath the depression was a strong undercurrent of hostility, which taxed severely the psychiatrist's own emotional resources as well as those of his staff.

A common patient type encountered on the wards was a squad leader, particularly one in the grade of corporal. It seemed difficult for some of these young men, still in late adolescence, to handle the grave challenge of being responsible for other men's lives. Unlike the older officers and more senior noncommissioned officers, their own maturation had not progressed far enough to make the burden of leadership tolerable.

There seemed to be two peaks for psychiatric disability: one after two or three months, when the immature personalities or character and behavior disorder individuals collapsed, and the other at approximately 10-11 months, when the anxious, neurotic but highly conscientious Marine might develop incapacitating symptoms. The closer he approached to the 13-month rotation date the more obsessively convinced the individual became of the imminence of his death. In some individuals, particularly corpsmen, the fear of gross mutilation was greater than that of death itself.

However, in spite of all the stress in the war zone, the rate of psychiatric disability in Viet Nam has been remarkably low for all the armed forces, less than in either World War II or Korea(2, 3). Many reasons have been advanced to explain this; among the most cogent are a limited, finite tour of duty, intermittent rather than continuous combat exposure, and a high sense of purpose and commitment on the part of the individuals facing combat.

Finally, it must be said that the military psychiatric lessons of 1918, 1943, and the Korean War have been well learned by the young psychiatrists in the Viet Nam theater. They know full well how medical intervention and facilities in the past often encouraged regression and invalidism, and they are imbued with a sense of therapeutic zeal and optimism which is a potent force in the prevention of chronic psychiatric disability.

Summary

A report of psychiatric experience aboard the U. S. Navy hospital ship *Repose* has been presented. A survey of 143 psychiatric cases admitted during the ship's initial operations in the Viet Nam combat zone from February through August 1966 was recorded. Sixty-seven percent of these patients were classified as character and behavior disorders, 20 percent as psychoneurotic, and 13 percent as psychotic. Similarities and differences on demographic variables were presented and discussed. Fifty-two percent of the character and behavior disorder patients and 75 percent of the psychoneurotic patients were returned to full duty.

The role of the hospital ship as an intermediate echelon of psychiatric treatment in the war area was described.

REFERENCES

1. Arthur, R. J.: Stability in Psychosis Admission Rates: Three Decades of Navy Experience, Public Health Rep. 80:512-514, 1965.
2. Glass, A.: Principles of Combat Psychiatry, Milit. Med. 177:27-33, 1955.
3. Tiffany, W. J., Jr., and Allerton, W. S.: Army Psychiatry in the Mid-'60s, Amer. J. Psychiat. 123:810-821, 1967.

UNCLASSIFIED
Security Classification

DOCUMENT CONTROL DATA - R&D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY *(Corporate author)* Navy Medical Neuropsychiatric Research Unit, San Diego, California 92152	2a. REPORT SECURITY CLASSIFICATION Unclassified 2b. GROUP

3. REPORT TITLE

Hospital ship psychiatry in a war zone

4. DESCRIPTIVE NOTES *(Type of report and inclusive dates)*

5. AUTHOR(S) *(Last name, first name, initial)*

Robert E. Strange and Ransom J. Arthur

6. REPORT DATE	7a. TOTAL NO. OF PAGES	7b. NO. OF REFS
1967	6	3

8a. CONTRACT OR GRANT NO. b. PROJECT NO. MF022.01.01-90001 c. d.	9a. ORIGINATOR'S REPORT NUMBER(S) 67-7 9b. OTHER REPORT NO(S) *(Any other numbers that may be assigned this report)*

10. AVAILABILITY/LIMITATION NOTICES

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11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY
	Bureau of Medicine and Surgery Department of the Navy Washington, D. C. 20390

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DD FORM 1 JAN 64 1473 0101-807-6800

UNCLASSIFIED
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14. KEY WORDS	LINK A		LINK B		LINK C	
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