AD 744655

LIBRARY
TECHNICAL REPORT SECTION
NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA 93949

ACTUARIAL ODDS SCORES FOR RETURN TO DUTY SUCCESS OF NAVY AND MARINE CORPS PERSONNEL ADMITTED TO THE PSYCHIATRIC SICK LIST

NEWELL H. BERRY DARREL EDWARDS

REPORT NO. 72-2



NAVY MEDICAL

NEUROPSYCHIATRIC RESEARCH UNIT

SAN DIEGO, CALIFORNIA 92152

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

Actuarial Odds Scores for Return to Duty Success of
Navy and Marine Corps Personnel Admitted to the Psychiatric Sick List

CDR Newell H. Berry, MSC USN

LT Darrel Edwards, MSC USN

Navy Medical Neuropsychiatric Research Unit
San Diego, California 92152

Report Number 72-2

May 1972

This study was supported by the Bureau of Medicine and Surgery, Department of the Navy under Research Unit MFI2.524.002-9002. The opinions expressed are those of the authors and are not to be construed as official or as necessarily reflecting the views or endorsement of the Department of the Navy.

Actuarial Odds Scores for Return to Duty Success of

Navy and Marine Corps Personnel Admitted to the Psychiatric Sick List

CDR Newell H. Berry, MSC USN

LT Darrel Edwards, MSC USN

From the research reported in Technical Report 72-I (Berry, Edwards, Iorio, and Gunderson, 1972) actuarial tables to be used as an assistance in making and approving recommendations from the Navy psychiatric sick list of Navy and Marine patients have been abstracted. It is emphasized that these tables should be used in a two-step decision making process: First the Clinical Tables in assessing the outcome of making a recommendation to return a patient to full duty, and then of estimating the result by use of the Administrative Tables if that recommendation is approved.

CLINICAL ACTUARIAL TABLES

For Recommended Disposition from the NP Sick List

Arriving at a recommended disposition of cases on the psychiatric sick list frequently presents problems to the Navy psychiatrist in charge of the case. A critical factor in determining the recommendation is adequate knowledge about the ability of a given service member to return to full duty and effectively perform his assignments for a reasonable period of time. The table of Clinical Odds Score that follows presents the probabilities that an enlisted psychiatric patient would be effective if returned to duty. These results are based on a longitudinal study at the Navy Medical Neuropsychiatric Research Unit, San Diego, of Navy and Marine Corps patients. Definitions

Return to Duty (RTD): A patient was classified as RTD if a recommendation was made to return the patient to full duty without qualifications or restrictions.

NRTD. Other patients were classified as not returned to duty. NRTD includes (a) separation from active service at the time of discharge from the hospital, (b) referral to the physical disability retirement system, (c) return to duty to await administrative or disciplinary action pending at the time of admission to the hospital, (d) or return to duty with the recommendation that consideration be given to administrative separation from active service. Limited duty recommendations were not included in this study, but have been examined separately.

Effective. Effectiveness is defined as (a) completing the current enlistment and (b) being recommended for the reenlistment at the time of discharge from service.

Failure. All other outcomes were classified as failures.

Use of the Clinical Actuarial Tables

The final disposition of each member admitted to the psychiatric sick list must be based upon the individual merits of the case, but the probabilities that a patient is a good risk (determined from the outcome of the class of other patients who were similar to him) is an important determinant. That is not to say that sound clinical evidence may not lead to the recommendation for the separation of a man from service although he may have a high Clinical Odds Score or that a man with a low probability may not be recommended for RTD. The Clinical Actuarial Odds provide guidelines to be reflected against the total clinical picture.

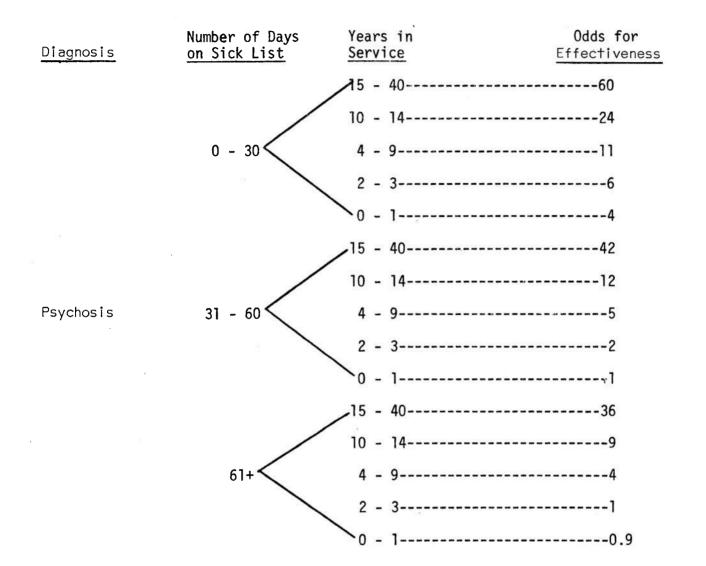
Factors. Three factors are required to determine a Clinical Odds Score:

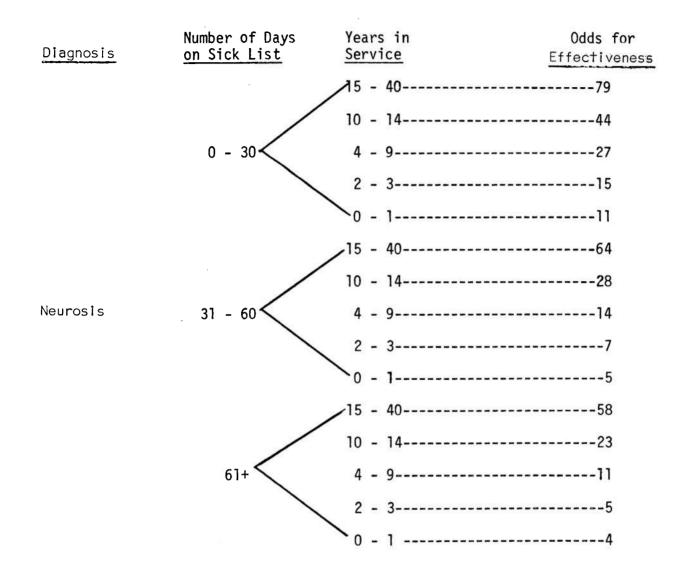
(I) Diagnosis, (2) Number of days the patient was on the sick list (up to the time of the final writing of his medical board or narrative summary), and (3) Navy--the number of years the man had been in the service for Navy enlisted patients and, Marines--the man's age.

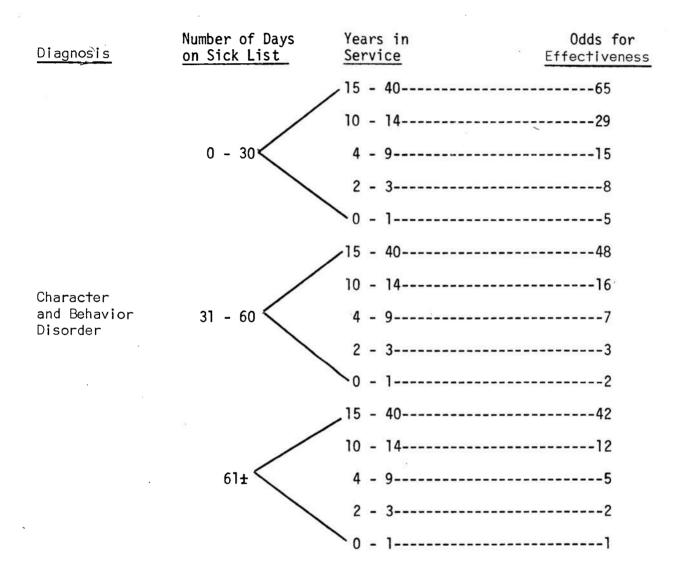
Computation. Using the appropriate tables, proceed as follows:

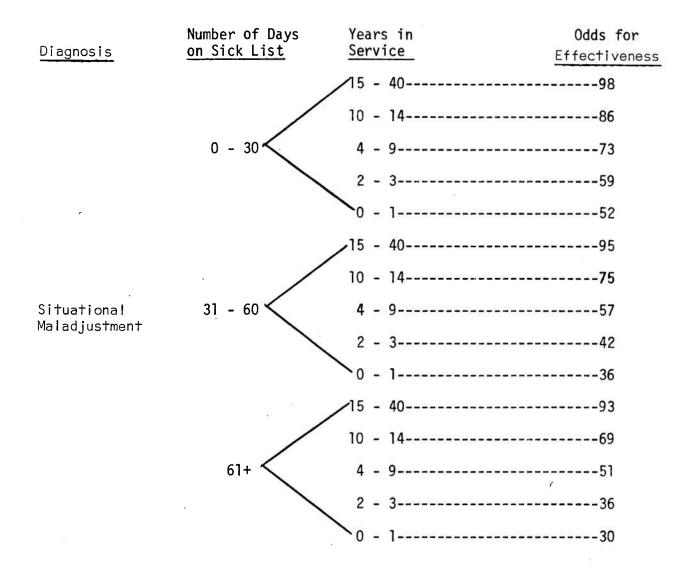
- (1) Start with the appropriate diagnosis
- (2) Branch to the correct number of days on the sick list
- (3) Continue to follow the branch to the correct number of years in service (Navy) or age (Marines)
- (4) The odds for effectiveness score can be read opposite to the terminal branch point (Years in service—Navy, and age—Marines)

<u>Interpretation</u>. A patient with the characteristics used to determine the Clinical Odds Score has the determined "odds in 100" of being effective if recommended for RTD.

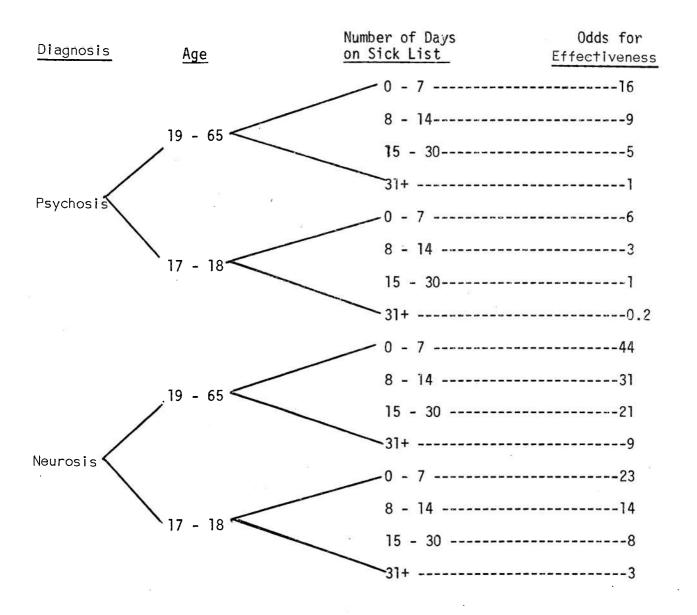




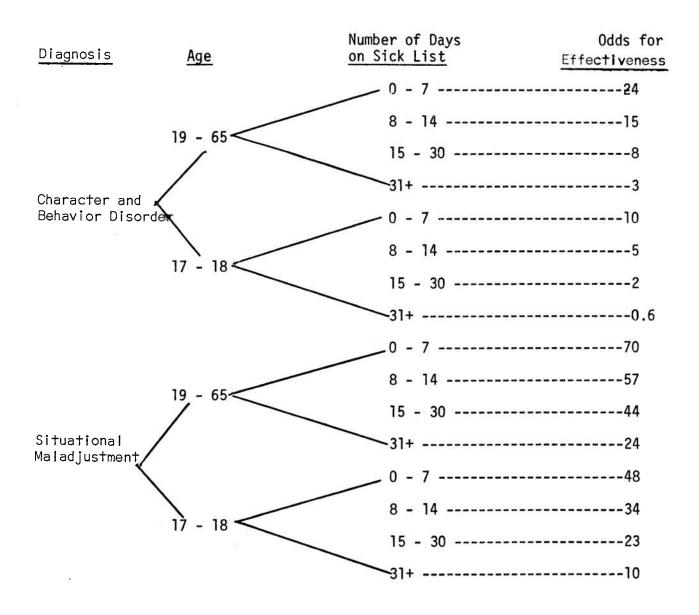




MARINE CORPS



MARINE CORPS



ADMINISTRATIVE ACTUARIAL TABLES

Approval of a recommended disposition from the NP Sick List
Approval of a recommended disposition from the sick list of psychiatric
cases frequently presents unique problems. A critical factor in approving
the recommendation is adequate knowledge about the ability of a given service
member to return to full duty and effectively perform his assignments for a
reasonable period of time. The Table of Administrative Odds Scores that
follows presents the probabilities that an enlisted psychiatric patient
would be an effective sailor or Marine if returned to duty. These results
are based on a longitudinal study at the Navy Medical Neuropsychiatric
Research Unit, San Diego, of Navy and Marine Corps psychiatric patients.
Definitions:

Returned to Duty (RTD). A patient was classified as RTD if returned to full duty without qualifications or restrictions.

NRTD. Other patients were classified as not returned to duty. NRTD includes (a) separation from active service at the time of discharge from the hospital, (b) referral to the physical disability retirement system, (c) return to duty to await administrative or disciplinary action pending at the time of admission to the hospital, or (d) return to duty with the recommendation that consideration be given to administrative separation from active service. Limited duty recommendations were not included in this study, but have been examined separately.

Effective. Effectiveness is defined as (a) completing the current enlistment (b) and being recommended for reenlistment at the time of completion of that enlistment.

Failure. All ohter outcomes were classified as failures.

Use of the Administrative Actuarial Tables

The final disposition of each member admitted to the psychiatric sick

list must be based upon the individual merits of the case, but the probabilities that a patient is a good risk (determined from the outcome of the class of other patients who were similar to him) is an important determinant. The Administrative Actuarial Odds provide guidelines to be reflected against the clinical recommendations.

Factors

Three factors are used to determine Odds for Effectiveness for each branch of service.

Navy. (I) Pay grade of patient, (2) the patient's perception of his wife's attitude toward his being in the service, and (3) the man's disciplin-record for the last year before hospitalization.

Marines. (1) Pay grade, (2) age, and (3) the patient's previous psychiatric history.

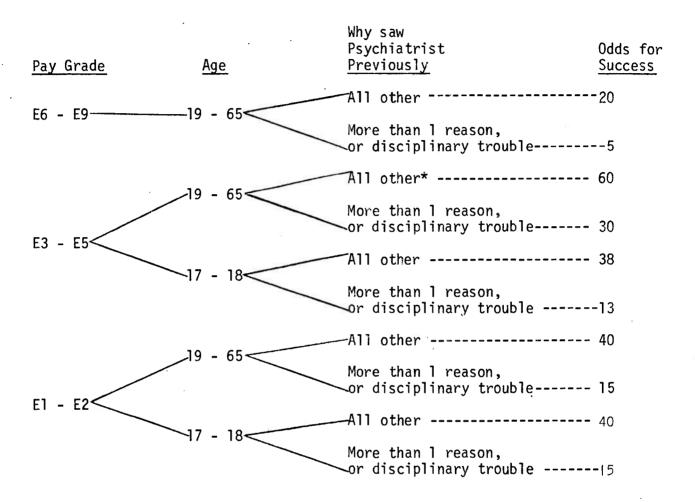
Computation. Using the appropriate tables, proceed as follows:

- (1) Start with the pay grade
- (2) Branch to the correct attitude class for the Navy or age for the Marine Corps
- (3) Continue to follow the branch to the correct class of disciplinary record for the Navy or previous psychiatric history for the Marine Corps
- (4) The odds for effectiveness score can be read opposite to the terminal branch point

Interpretation. A patient with the characteristics used to determine the Administrative Odds Score has the determined "odds in 100" of being effective if RTD.

Pay Grade	Wife's Attitude Toward Service	At least one Disciplinary Captain's Mast or Courts Martial	Odds for Effectiveness
	/Positive	No	99.9
E8 - E9		Yes	98
	Neutral	No	99.5
	Negative	Yes	92
	Single	No	95
		Yes	67
E6 - E7	Positive	No	99.5
		Yes	92
	Neutral	No	98
	Negative	Yes	79
	Single	No	84
	o mg re	Yes	43
	/Positive	No	89
E3 - E5	/ rostotic	Yes	65
	Neutral	No	84
	Negative	Yes	43
	Single	No	51
	3 mg re	Yes	12
	Positive —	No	72
E1 - E2	/ Tusterve	Yes	28
	Neutra]	No	51
	Negative	Yes	12
	Single	No	17
	Jillyle	Yes	1.5

MARINE CORPS



* Includes application to a special program which requires psychiatric clearance; difficulty getting along with others; nervous or emotional trouble; other reasons and never saw psychiatrist previously.

LINCLASSIFIED.	
Sagurity Classification	

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)						
Navy Medical Neuropsychiatric Research Unit		2a. REPORT SECURITY CLASSIFICATION				
San Diego, California 92152		UNCLASSIFIED				
Ĭ,	2b. GROUP					
3. REPORT TITLE	1					
Actuarial Odds Scores for Return to Duty Success of Navy and Marine Corps Personnel Admitted to the Psychiatric Sick List						
4. OESCRIPTIVE NOTES (Type of report and inclusive dates)						
S. AUTHOR(S) (First name, middle initial, last name)						
Newell H. Berry, Darrel Edwards						
6. REPORT CATE May 1972	78, TOTAL NO. 0	FPAGES	7b. NO. OF REFS			
May 1972	13		l o			
8a. CONTRACT OR GRANT NO.	9a. ORIGINATOR'S REPORT NUMBER(S)					
b. PROJECT NO. MF12.524.002-9002	72-2					
с,	to. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)					
d.	<u> </u>					
10. DISTRIBUTION STATEMENT						
Approved for public release, distribution						
11. SUPPLEMENTARY NOTES 12. SPONSORING MILITARY ACTIVITY						
	Bureau of Medicine and Surgery					
Department of the Navy						
Washington, D. C. 20390						
From the research reported in Technical Report 72-1 (Berry, Edwards, Iorio, and Gunderson, 1972) actuarial tables to be used as an assistance in making and approving recommendations from the Navy psychiatric sick list of Navy and Marine patients have been abstracted. It is emphasized that these tables should be used in a two-step decision making process: First, the Clinical Tables in assessing						

the outcome of making a recommendation to return a patient to full duty, and then of estimating the result by use of the Administrative Tables if that recommendation is approved.

DD FORM 1473

(PAGE 1)

PLATE NO. 21856

UNCLASSIFIED

Security Classification

UNCLASSIFIED

Security Classification LINK A 14. LINK B LINK C KEY WORDS ROLE ROLE wT ROLE Actuarial odds scores Psychiatric patients Return to duty Effectiveness Psychiatric decisions

DD FORM 1473 (BACK)

(PAGE 2)

DEPARTMENT OF THE NAVY

COMMANDING OFFICER

MAVY MEDICAL NEUROPSYCHIATRIC

RESEARCH UNIT

SAN DIEGO, CALIFORNIA 92152 87

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID DEPARTMENT OF THE NAVY DoD-316

1 - 31MONTEREY, CALIFORNIA 93940 LIBRARY, CODE 0212 NAVAL POSTGRADUATE SCHOOL