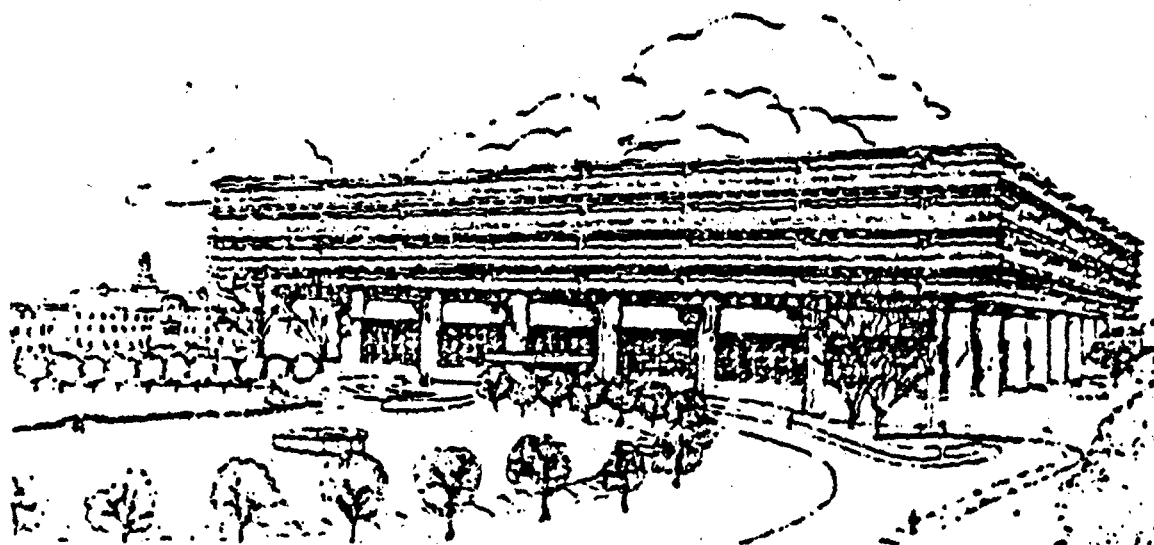


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1980

# AMEDD PSYCHOLOGY SYMPOSIUM



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 P004 096 Restructuring AMEDD Psychology for the 80s  
 P004 097 Current Status and Future Directions  
 Federal Legislation Affecting Psychology:  
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AMEDD PSYCHOLOGY SYMPOSIUM, 1980

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There were sixty-two registered military psychology attendees for this symposium. Non-registered military and civilian participants made the grand total of attendees approximately seventy-five for this five day conference.

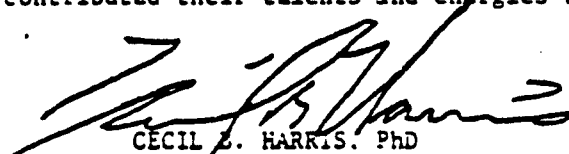
The theme of the conference, "Looking Toward AMEDD Psychology in the Eighties", recognized the significant challenge which faces AMEDD Psychology as it realigns to better support the AMEDD mission in the decade of the eighties. Course objectives, designed to accomplish the spirit of the theme, were:

- To promote knowledge and understanding of the significant issues and problems facing the Army in the 1980's with which military psychology must be concerned.
- To devise innovative ways for AMEDD Psychology to meet the challenges and produce solutions to anticipated problems.
- To provide a forum for continuing education, exchange of new ideas, and maintenance of high levels of professional competence for military psychologists.

The presentations and discussions herein reflect the best thinking available to the course director in structuring a symposium which would accomplish the course objectives. It should be noted that the views and opinions expressed are those of the respective authors and do not necessarily represent those of the Surgeon General, Department of the Army, or the Department of Defense.

I encourage all AMEDD Psychologists to prepare personally and professionally for the challenges which must be met during the decade of the eighties. It is only with dedicated personal and professional preparation that AMEDD Psychology will be able to conserve the fighting strength.

This headquarters is deeply appreciative of LTC Fishburne, CPT Klusman, and all participants who generously contributed their talents and energies to the symposium.

  
CECIL L. HARRIS, PhD  
COL, MSC  
Psychology Consultant

| REPORT DOCUMENTATION PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     | READ INSTRUCTIONS<br>BEFORE COMPLETING FORM                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------|
| 1. REPORT NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2. GOVT ACCESSION NO.<br>AD-A147332 | 3. RECIPIENT'S CATALOG NUMBER                                    |
| 4. TITLE (and Subtitle)<br>Proceedings, 1980 AMEDD Psychology Symposium:<br>21 - 31 October 1980                                                                                                                                                                                                                                                                                                                                                                                           |                                     | 5. TYPE OF REPORT & PERIOD COVERED<br>Final Report November 1980 |
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| 18. SUPPLEMENTARY NOTES                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                                                  |
| 19. KEY WORDS (Continue on reverse side if necessary and identify by block number)<br>Army Psychology, women in the military, leadership effectiveness, male and female performance, combat and psychiatric casualties, credentialing, community mental health activity users, Army drug prevention program, retention factors, job satisfaction, military family programs, sexual assault management, play therapy, organizational effectiveness, regional consultants                    |                                     |                                                                  |
| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number)<br><br>The Proceedings document the 1980 symposium presentations and group reports. Presentations dealt with: challengers facing AMEDD psychology in the 1980s, women in the military, leadership effectiveness, male and female performance, psychiatric casualties, credentialing, psychological assessment of military criminal defendants, stress reactions, community mental health activity users. |                                     |                                                                  |



Army drug prevention program, retention factors, job satisfaction, military family counselling, organizational effectiveness, sexual assault management, command consultation, federal legislation affecting psychology, and regional consultants. Task reports were from committees on: plans and policies, recruitment and retention, professional affairs, and education and training.

AMEDD PSYCHOLOGY SYMPOSIUM

27-31 October 1980

COURSE DIRECTOR

Lieutenant Colonel Francis J. Fishburne, Ph.D.  
Chief, Psychology Service  
Walter Reed Army Medical Center

ASSISTANT COURSE DIRECTOR

Captain Lawrence E. Klusman, Ph.D.  
Psychology Service  
Walter Reed Army Medical Center

PROCEEDINGS EDITORS

Captain A. David Mangelsdorff, Ph.D.,  
Captain Lawrence E. Klusman, Ph.D.

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# SCHEDULE OF EVENTS

MONDAY 27 October 1980

|           |                                                                                                  |                                        |
|-----------|--------------------------------------------------------------------------------------------------|----------------------------------------|
| 0745-0830 | Registration and Sign-up for Task Force Groups                                                   |                                        |
| 0830-0835 | Welcome                                                                                          | LTC Fishburne                          |
| 0835-0845 | Opening Remarks                                                                                  | MG Mittenmeyer                         |
| 0845-0920 | The Status of AMEDD Behavioral Sciences                                                          | COL Jones<br>COL Jentsch<br>COL Harris |
| 0920-0930 | Break                                                                                            |                                        |
| 0930-1030 | Challenges Facing AMEDD Psychology in the Eighties                                               | Dr. Matarazzo                          |
| 1030-1045 | Break                                                                                            |                                        |
| 1045-1145 | The State of the Medical Service Corps                                                           | BG Young                               |
| 1145-1200 | Preliminary Organization of the Task Force Groups                                                | Task Force Chairmen                    |
| 1200-1300 | Lunch                                                                                            |                                        |
| 1300-1320 | Current Status, Future Trends, and National Issues Regarding Women in the Military               | Mr. Gray                               |
| 1320-1340 | An Historical Review of Women in the Military                                                    | MG Holm (Ret.)                         |
| 1340-1400 | Evaluation of Leadership Effectiveness in Mixed Gender Units                                     | MAJ Adams                              |
| 1400-1420 | Stress, Coping, and Support Systems Among Female Cadets                                          | LTC Wilson<br>CPT Rhone                |
| 1420-1440 | The Relationship of Physiological and Psychological Factors to Injuries in Female Basic Trainees | MAJ Kowal                              |
| 1440-1500 | Break                                                                                            |                                        |
| 1500-1520 | Psychosocial Factors Affecting the Health and Well-being of Women in the Army: A Pilot Study     | LTC Harris<br>CPT Knudsen              |

MONDAY 27 October 1980 (Continued)

|           |                                                                                   |                                    |
|-----------|-----------------------------------------------------------------------------------|------------------------------------|
| 1520-1540 | Sexual Knowledge and Contraceptive Use<br>Among Female and Male Enlisted Soldiers | CPT Jellen                         |
| 1540-1600 | The Impact of Sole Parenting and Pregnancy<br>on Overseas Deployment              | CPT Vernon                         |
| 1600-1620 | Male and Female Performance on Military<br>Related Tasks                          | Dr. Hudgens<br>Mrs. Torsani-Fatkin |
| 1620-1640 | Discussion                                                                        | Dr. Segal                          |

TASK FORCE GROUPS

Participants should sign up at Registration for Task Force Groups as desired.  
The following groups are planned:

| <u>Group</u>                 | <u>Chairmen</u>                |
|------------------------------|--------------------------------|
| 1. Plans and Policies        | MAJ Jeffrey                    |
| 2. Recruitment and Retention | LTC Gillooly                   |
| 3. Professional Affairs      | LTC McCormack and MAJ Rath     |
| 4. Education and Training    | MAJ Futterer and LTC Fishburne |

Meetings of the groups may conflict with other activities of the Symposium. This is unavoidable. The groups should form on Monday morning and decide when they want to meet during the week. It is expected that an initial meeting some time Monday afternoon would be planned. Meeting rooms can be reserved by contacting Larry Klusman. Informal meetings may also be productive. The chairmen will be responsible for the final report.

TUESDAY 28 October 1980

|           |                                                                                        |                                       |
|-----------|----------------------------------------------------------------------------------------|---------------------------------------|
| 0800-0825 | The AD 2000 Scenario and Its Implication for the Individual Soldier                    | Dr Hegge                              |
| 0825-0850 | Meeting the Chemical Threat                                                            | CPT Romano                            |
| 0850-0915 | The Individual Soldier Environment                                                     | Dr. Corona                            |
| 0900-1045 | Military Criminal Law: Issues and Decisions Affecting Psychology                       | MAJ Basham<br>CPT Ross                |
| 0915-0940 | The Incidence of Psychiatric Casualties in Past Conflicts                              | MAJ Ingraham                          |
| 0940-1000 | Break                                                                                  |                                       |
| 1000-1025 | Psychiatric Casualties in Continuous Land Combat                                       | LTC Belenky                           |
| 1025-1050 | Psychosocial and Organizational Aspects of Combat Effectiveness                        | Dr. Marlowe                           |
| 1050-1115 | Psychiatric Casualties in Future Conflicts: Estimates, Management and Treatment        | MAJ Rath                              |
| 1115-1145 | Discussion                                                                             | LTC Sodetz                            |
| 1200-1300 | Lunch                                                                                  |                                       |
| 1300-1445 | Workshop: Credentialing of the Military Psychologist (Licensing and the National Exam) | Dr. Hall                              |
| 1300-1415 | Psychological Assessment of Military Criminal Defendants                               | Dr. Shapiro                           |
| 1430-1630 | Mock Criminal Trial and Discussion of Issues                                           | Dr. Shapiro<br>MAJ Basham<br>CPT Ross |
| 1445-1515 | The National Register of Health Service Providers in Psychology                        | Dr. Wellner                           |
| 1515-1700 | Workshop on Credentialing continued...                                                 | Dr. Hall                              |
| 1700      | Social Hour at the WRAMC Officers Club                                                 |                                       |



WEDNESDAY 29 October 1980

|           |                                                                                                           |                                              |
|-----------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 0800-1200 | Workshop: Parent Education for Military Families                                                          | Dr. Walder                                   |
| 0800-1200 | Brain-Behavior Relationships and the Assessment of Fitness for Duty: The Luria Neuropsychological Battery | LTC Fishburne                                |
| 1200-1300 | Lunch                                                                                                     |                                              |
| 1300-1630 | Workshop: Implications of DSM III for Psychological Assessment in the Military                            | Dr. Poirier                                  |
| 1300-1630 | Workshop: Psychology in the Combat Environment                                                            | MAJ Rath<br>MAJ Ingraham<br>Dr. Mangelsdorff |
| 1300-1445 | Workshop: Managing a Community Mental Health Activity                                                     | LTC Worthington                              |
| 1445-1500 | An Epidemiological Study of MHCS Users                                                                    | MAJ Zych                                     |
| 1500-1515 | Changing Trends in CMHA Referrals                                                                         | MAJ Hulsebus                                 |
| 1515-1645 | Workshop: Contracting for Change with Adult Outpatients                                                   | LTC McCormack                                |

THURSDAY 30 October 1980

|           |                                                                                                                                  |                            |
|-----------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 0300-0900 | Sense and Nonsense in the Army Drug Abuse Prevention Program                                                                     | MAJ Ingraham               |
| 0800-0820 | The Psychologist Retention Study - Updated                                                                                       | Dr. Mangelsdorff           |
| 0800-1115 | Workshop: Management of Pain and Tension                                                                                         | Dr. Wain                   |
| 0820-0840 | Job Satisfaction Between Two Groups of Army Pharmacists                                                                          | CPT Rauch                  |
| 0840-0900 | Father Discrimination Two Weeks After Birth                                                                                      | MAJ Hulsebus               |
| 0900-0920 | Military Family Counseling                                                                                                       | CPT Garrigan               |
| 0900-0920 | Primary Prevention and the Military                                                                                              | CPT O'Brien                |
| 0920-0940 | The Army Psychologist and Organizational Effectiveness                                                                           | MAJ Lenz                   |
| 0920-0940 | Further Modification on a Theme: The Use of Dreams in Play Therapy with Latency and Younger Aged Children                        | MAJ Shoberg                |
| 0940-1000 | Man/Computer Interaction in DARCOM                                                                                               | CPT Hendricks              |
| 0940-1040 | Developing a Sexual Assault Management Program for a Military Hospital or Post                                                   | LTC Worthington            |
| 1040-1115 | The Assessment and Management of Soldiers for Command Consultation                                                               | MAJ Bevet                  |
| 1000-1045 | The History of AMEDD Psychology                                                                                                  | COL Driscoll               |
| 1045-1115 | The European Connection: Research and Applied Psychology in USAREUR                                                              | MAJ Ingraham               |
| 1130      | Bus departs for Uniformed Services University of the Health Sciences (USUHS) from the first floor main entrance to the Hospital. |                            |
| 1200-1300 | Lunch                                                                                                                            |                            |
| 1300-1330 | Welcome and Introduction to USUHS                                                                                                | Dr. Sanford<br>Dr. Bullard |
| 1330-1400 | Introduction to Behavioral Medicine<br>Political Organization of Behavioral Medicine and Health Psychology                       | Dr. Singer                 |

THURSDAY 30 October 1980 (Continued)

|           |                                                                     |              |
|-----------|---------------------------------------------------------------------|--------------|
| 1400-1430 | Behavioral Medicine: Environmental Stress                           | Dr. Baum     |
| 1430-1500 | Break                                                               |              |
| 1500-1530 | Behavioral Medicine: Stress and Coronary Heart Disease              | Dr. Krantz   |
| 1530-1600 | Behavioral Medicine: Biofeedback Intervention                       | Dr. Gatchel  |
| 1600-1630 | Behavioral Medicine: Practitioner-Patient Relationships             | Dr. Whitcher |
| 1630-1700 | Behavioral Medicine: Appetitive Behaviors: Smoking and Obesity      | Dr. Grunberg |
| 1715      | Bus departs for the Sheraton and WRAMC from main entrance of USUHS. |              |

FRIDAY 31 October 1980

|           |                                                                   |             |
|-----------|-------------------------------------------------------------------|-------------|
| 0800-0900 | Tasks Force Meetings                                              |             |
| 0900-0930 | Educational Opportunities for Army Psychologists                  | COL Nichols |
| 0930-1000 | AMEDD Psychology: Current Status and Future Prospects             | COL Harris  |
| 1000-1100 | Federal Legislation Affecting Psychology: Trends for the Eighties | Dr. O'Keefe |
| 1100-1200 | Task Force Meetings                                               |             |
| 1200-1300 | Lunch                                                             |             |
| 1300-1500 | New Directions for AMEDD Psychology                               | Dr. Blau    |
| 1500-1630 | Symposium Wrap-up and Final Task Force Meetings                   |             |

## SYMPOSIUM SPEAKERS

MAJ Jerome Adams is in the Department of Leadership and Behavioral Sciences at the U.S. Military Academy.

MAJ Owen D. Basham is a JAG officer on the faculty of the Judge Advocate General School in Charlottesville, Virginia.

Dr. Andrew S. Baum is Assistant Professor, Department of Medical Psychology, Uniformed Services University of the Health Sciences.

LTC Gregory Belenky is in the Department of Neurosciences, Walter Reed Army Institute of Research. He is also a member of the faculty of the Uniformed Services University of the Health Sciences.

Dr. Theodore H. Blau is past president of the American Psychological Association. He is a civilian consultant to the Army Surgeon General.

Dr. John W. Bullard is Assistant Dean for Graduate and Continuing Education at the Uniformed Services University of the Health Sciences.

Dr. Bernard Corona is Chief, Individual Soldier and Battlefield Environment Directorate, U.S. Army Human Engineering Laboratory, Aberdeen Proving Grounds, Maryland.

Dr. Willis C. Driscoll (COL, Res.) is the mobilization designee for Psychology Consultant, Office of the Surgeon General. He is in private practice in Columbus, Ohio.

LTC Francis J. Fishburne is Chief, Psychology Service, Walter Reed Army Medical Center. His specialties include neuropsychological assessment.

CPT James J. Garrigan is Chief, Community Mental Health Service, Fort Stewart, Georgia.

Dr. Robert J. Gatchel is Associate Professor of Medical Psychology, Uniformed Services University of the Health Sciences.

Mr. Donald Gray is Director, Equal Opportunity (Military) Office of the Assistant Secretary of Defense for Manpower, Reserve Affairs, and Logistics.

Dr. Neil E. Grunberg is an assistant professor, Department of Medical Psychology, Uniformed Services University of the Health Sciences.

Dr. Judy E. Hall is the Executive Secretary, State Board for Psychology (New York).

LTC Jesse Harris is a social worker assigned to the Department of Military Psychiatry, Walter Reed Army Institute of Research.

Dr. Frederick W. Hegge is Chief, Department of Military Medical Psychophysiology at Walter Reed Army Institute of Research. He is the United States representative to the NATO group studying biomedical aspects of continuous land combat.

CPT Daniel E. Hendricks is a research psychologist at Aberdeen Proving Grounds, Maryland.

MG Jeanne Holm, USAF (Ret.) is currently writing a book on the history of women in the military.

Dr. Gerald Hudgens is a research scientist at the Human Engineering Laboratory, Aberdeen Proving Grounds, Maryland.

MAJ Robert C. Hulsebus is a clinical psychologist assigned to the Community Mental Health Activity, Dwight David Eisenhower Army Medical Center, Fort Gordon, Georgia.

MAJ Larry Ingraham is a social psychologist. He is commander of the U.S. Army Medical Research Unit in Germany.

CPT Linda Jellen is a social worker currently doing research at Fort Bragg, North Carolina. She is assigned to the Department of Military Psychiatry, Walter Reed Army Institute of Research.

COL David P. Jentsch is Chief of Social Work Service at Walter Reed Army Medical Center. He also serves as the Social Work Consultant to the Army Surgeon General.

COL Franklin D. Jones holds the position of Psychiatry and Neurology Consultant, Office of the Surgeon General.

CPT Kathryn Knudsen is a research psychologist assigned to Walter Reed Army Institute of Research.

MAJ Dennis Kowal is a physiological and clinical psychologist assigned to the U.S. Army Hospital at Fort Campbell, Kentucky.

Dr. David S. Krantz is Assistant Professor, Department of Medical Psychology, Uniformed Services University of the Health Sciences.

MAJ Ernest J. Lenz is on the faculty of the Organizational Effectiveness School at Fort Ord, California.

Dr. A. David Mangelsdorff is a psychologist at the Health Care Studies Division, Academy of Health Sciences, Fort Sam Houston, Texas.

Dr. David H. Marlowe is Chief, Department of Military Psychiatry, Walter Reed Army Institute of Research.

Dr. Joseph D. Matarazzo is Professor and Chairman, Department of Medical Psychology, University of Oregon Medical School. He is a consultant to the Army Surgeon General.

LTC John C. McCormack is Chief, Psychology Service, Dwight David Eisenhower Army Medical Center, Fort Gordon, Georgia.

MG Bernhard T. Mitemeyer is the Commanding General of Walter Reed Army Medical Center.

COL Robert S. Nichols is Chief, Health Education and Training Division, AMEDD Personnel Support Agency.

CPT Robert P. O'Brien is Chief, Psychology Service, William Beaumont Army Medical Center, El Paso, Texas.

Dr. Anne Marie O'Keefe is affiliated with the Association for the Advancement of Psychology.

Dr. Joseph G. Poirier is the Clinical Director of the Young Adult Counseling Program in Montgomery County, Maryland. DSM III field trials were conducted within this program.

MAJ Frank H. Rath is the Psychology Consultant, 7th MEDCOM, U.S. Army in Europe.

CPT Terry M. Rauch is a research psychologist in the Health Care Studies Division, Academy of Health Sciences, Fort Sam Houston, Texas.

CPT Terresa Rhone is a clinical psychologist at the Cadet Counseling Center, U.S. Military Academy.

CPT James Romano is assigned to the Neuropsychology Division, Biomedical Research Laboratory, Aberdeen Proving Grounds, Maryland.

CPT Joseph E. Ross is a JAG officer in the Criminal Division of the Judge Advocate General School in Charlottesville, Virginia.

Dr. Jay P. Sanford is Dean of the School of Medicine, Uniformed Services University of the Health Sciences.

Dr. Mady Segal is an Associate Professor in the Department of Sociology at the University of Maryland. She is currently on sabbatical at the Walter Reed Army Institute of Research.

Dr. David Shapiro is a board-certified forensic psychologist currently in private practice in Washington, D.C.

MAJ John D. Shoberg is Chief, Community Mental Health Activity, Tripler Army Medical Center, Honolulu, Hawaii.

Dr. Jerome E. Singer is Professor and Chairman, Department of Medical Psychology, Uniformed Services University of the Health Sciences.

LTC Frank Sodetz is the Director, Division of Neuropsychiatry, Walter Reed Army Institute of Research.

Mrs. Linda Torsani-Fatkin is at the Human Engineering Laboratory, Aberdeen Proving Grounds, Maryland.

CPT Darleen Vernon is assigned to the Department of Military Psychiatry, Walter Reed Army Institute of Research.

Dr. Harold J. Wain is Director, Psychiatry Liaison Service, Walter Reed Army Medical Center.

Dr. Leo Walder is a board-certified psychologist who has done research as well as clinical work in the area of behavior therapy.

Dr. Alfred M. Wellner is the Executive Officer, Council for the National Register, Health Service Providers in Psychology.

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CHALLENGES FACING AMEDD PSYCHOLOGY  
IN THE EIGHTIES

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ABSTRACT

Today's yearly expenditures for health care in the United States now exceed 200 billion dollars, or more than 10 percent of our country's annual gross national product. Analysts from many disciplines believe that the dollar, as well as the human, costs associated with such currently preventable dysfunctions as lung cancer, cardiovascular disease, drug and alcohol abuse, and vehicle accidents are a needless waste of this country's human and fiscal resources. A consensus has emerged that the behavior of the individual is today's unexplored frontier in the study and understanding of health (e.g., Americans use or abuse tobacco, alcohol, and salt, practice poor dental hygiene, fail to use their automobile seat belts, and so on). Psychology is a discipline with one hundred years of experience in the study of individual behavior, including behavior change. It is asserted that every specialty of academic, scientific and professional psychology has within its ranks individual psychologists with the potential to help map some of the important landmarks in this beckoning and relatively unexplored frontier, the health behavior of individuals. Recent developments in federal and private support of this country's educational and scientific constituencies make it all the more necessary that psychology deploy some of its talent and other resources to help meet this critically important national need.

Health Expenditures In The United States

In 1964 President Lyndon Johnson, first threatening and next fully using the power of the federal purse, informed this country's scientific and university professional manpower training communities that the American taxpayer was demanding that federal

## **Presentations**

health-related funds be used to support fewer basic and theoretical and more applied and practical research and training activities. The 1964 Congress and its successors, and Presidents Nixon, Ford and Carter, each have endorsed this demand that our scientific and teaching institutions refocus their priorities and begin to pay more attention to the human (and the ever-increasing dollar) costs associated with the health of our citizens.

Using short term future projections, it had become obvious during the 1960's that this nation's health expenditures were growing at a rate relative to our gross national product which was unsupportable if not morally indefensible.<sup>2</sup> Table 1 from Gibson (1979) as reproduced in Vischi, Jones, Shank and Lima (1980, p. 131) present some pertinent statistics. For example, whereas

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Insert Table 1 about here  
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this country's 1950 expenditure for health of 12.7 billion dollars was only 4.5% of that year's United States gross national product of 284.8 billion dollars, by 1965 this expenditure had increased to 6.2% and, by 1978, had increased even further to 9.1%. As further revealed in Figure 1, a recent informed estimate of projections through the next decade by Rogers (1980), the President of the Robert Wood Johnson Foundation, indicates that by the year 1990 this figure will fall somewhere between 9.1 and 14 per cent of our gross national product.

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Insert Figure 1 about here  
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Inasmuch as the data in Table 1 show that in 1978 the average United States per capita health expenditure was \$863, the question demands to be asked whether every year our nation can afford to spend on the health of its people roughly \$1000. per man, woman, and child of the total income it generates from the aggregate of the goods and services it produced that year. Few individuals in government or in the various segments of our health industry believe we are able to afford the present per capita expenditure, let alone sustain or allow it to increase. The reduction of this dollar burden is a national responsibility which is shared collectively

by scores of constituencies, including consumers, providers of health services in a number of professions, legislators, the health industry more generally, private philanthropy, the universities and scientific communities, and many others. The purpose of this paper is to draw attention to several specific areas of this country's health expenditures which could be reduced in part by the effort of individual members of one of these constituencies, the science and profession of psychology. First, however, it will be necessary to review several pertinent changes which have occurred in the twentieth century in the types of illnesses and dysfunctions which incapacitate our citizens.

### Changing Patterns for Death and Disability

Developments in the basic and applied sciences associated with infectious disease, immunology, epidemiology and related disciplines during the past 80 years have markedly changed the illness patterns of Americans by reducing or eliminating such previously highly prevalent conditions as tuberculosis, influenza, measles, and poliomyelitis. Figures 2 and 3 from the First Surgeon General's Report on Health Promotion and Disease Prevention (Califano, 1979a, p. 4, 94) present the evidence which indicates that the human and dollar toll from these four scourges has been reduced materially in our lifetime.

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Insert Figures 2 and 3 about here  
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Unfortunately, the reduction in these conditions has occurred in parallel with an increase in such other conditions as lung cancer, major cardiovascular disease, drug and alcohol abuse, and motorcycle and automobile accidents. The remaining data in Figure 2 and the additional data reported by Califano (1979a, 1979b) and shown in Figures 4, 5, and 6 reveal several of these increasing

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Insert Figures 4, 5, and 6 about here  
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trends. There are, of course, many other conditions, illnesses, and disabilities which have not been mentioned. Those just named,

however, represent the ones which in aggregate take an inordinate and morally unjustified human and dollar toll.

### Behavioral Health

In a previous article (Matarazzo, 1980a), I traced the recent developments in federal funding of research and training as well as within some of the health disciplines themselves which were associated with a revival of interest in behavioral medicine and new interest in behavioral health. In this earlier communication I gave this latter field the following interim definition.

"Behavioral health is an interdisciplinary field dedicated to promoting a philosophy of health that stresses individual responsibility in the application of behavioral and biomedical science knowledge and techniques to the maintenance of health and the prevention of illness and dysfunction by a variety of self-initiated individual or shared activities" (Matarazzo, 1980a).

The decision to assign a formal name to this new interdisciplinary field was based on a number of factors. For example, the data in Figures 1 through 6 presented above provide depressing support for the charge by Knowles (1977), a physician and social philosopher, that

"Over 99 per cent of us are born healthy and made sick as a result of personal misbehavior and environmental conditions. The solution to the problems of ill health in modern American society involves individual responsibility, in the first instance, and social responsibility through public legislature and private volunteer efforts, in the second instance" (p. 58).

There is evidence that leaders in many health professions have taken seriously this challenge posed by Knowles.

### Health Psychology

The discipline of medicine, including its related disciplines of preventive medicine, cardiology, etc., and the disciplines of

medical sociology, stress physiology, and others clearly are actively involved in preventing illnesses and promoting good health. During the past two decades the discipline of psychology also has had its interest stimulated in this interdisciplinary field; and in 1978 established a Division of Health Psychology within the American Psychological Association in response to many concurrent developments in the field of health and illness. To add impetus to these developments within psychology, I recently offered the following as an initial description, subject to continuing modification by others, of this emerging field within psychology.

"Health psychology is the aggregate of the specific education, scientific, and professional contribution of the discipline of psychology to the promotion and maintenance of health, the prevention and treatment of illness, and the identification of etiologic and diagnostic correlates of health, illness, and related dysfunction" (Matarazzo, 1980a).

The casual reader of this definition might misinterpret health psychology to pertain only to the concerns of individual psychologists with an applied interest or focus (e.g., the clinical psychologist). Nothing could be further removed from my purpose. As I recently outlined (Matarazzo, 1980b), during the first century of the existence of the American Psychological Association three subject areas within psychology appear to have engaged the common interest of individual psychologists from such widely disparate subspecialties as experimental, clinical, physiological, social, industrial, child, educational and related branches of psychology. These three subject areas with very wide appeal for all types of psychologists were: (1) individual differences, (2) a combination of learning theory-personality theory, and (3) individual psychopathology. Recent developments in medicine and psychology which gave rise to the development of the interdisciplinary field labelled behavioral health suggest to me that a fourth area (health psychology), with its strong emphasis on prevention of dysfunction in currently healthy children and adults, also has the potential to attract to it creative individual psychologists from such seemingly disparate subfields of psychology as each of those just enumerated.

#### Some Behavioral Health Challenges Awaiting Psychology

Study of Figures 1 through 6 above leaves little question that focusing some aspects of this country's investigative and educational talent and resources on changes in the behavior of

individual Americans will result in a large reduction in the human and dollar costs associated with today's indefensible health expenditures. National leaders of various persuasions are in agreement that the costly toll from heart disease, cancer and these other forms of waste of our national resources could be materially reduced if, as examples, we could find ways to help our currently healthy citizens (1) not begin to smoke, use alcohol, illicit drugs, and related deleterious substances, (2) not eat salt, and high cholesterol and non-nutritious junk foods, and concurrently also (3) use dental floss, (4) fasten their seat belts, (5) exercise regularly, (6) establish proper sleep and rest habits, and (7) employ a few basic home, highway and occupational health safety standards.

### Smoking

The data in Tables 2, 3, and 4 are illustrative of the challenge to individuals from any of the various subspecialties which comprise today's American psychology. Table 2 presents both a positive and negative trend. Specifically, due to a massive national education program following the first Surgeon General's Report to the Nation on Smoking in 1964, and with considerable input from individual psychologists as well as representatives of other disciplines, as reported by Califano (1979c), the percentage of male adult smokers in this country decreased from 52.6% to 39.3% in the two decades from 1955 to 1975 (Table 2).

Alarmingly, however, the same table reveals that during the same period there was an increase in female smokers from 24.5% to

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Insert Tables 2, 3 and 4 about here  
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28.9%. More frightening still, as shown in Table 3, the percentage of smokers among teen age girls began to increase rapidly (from 9.6% to 20.2% in 15-16 year olds during the years 1968 to 1974) and even exceeded in 1974 the current smoking rates of similarly aged boys (whose increase was only from 17.0% to 18.1%) during the same six year period.

The data in Table 4 make clear that, for both girls and boys, the time of greatest susceptibility to becoming a regular smoker for this country's children is around age 12. The United States



taxpayer has generously supported the post World War II development of academic and professional psychology. Should not a greater portion of psychology's vast current talent and resource be applied to stemming the health (cancer and cardiovascular disease)

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Insert Table 4 about here  
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and dollar costs associated with smoking, and cited in the tables and figures discussed earlier in this paper? It seems to me that as the field which has the longest history in the study of human behavior, and especially individual behavior, psychology has the scientific knowledge base, the practical applied experience, and the institutional supports for individuals within it to make important contributions immediately in the prevention of smoking in our country's youth.

Fortunately some beginning initiatives have been taken. For example, Jessor and Jessor (1977) and Ajzen and Fishbein (1970, 1972) have proposed some heuristically highly useful theoretical models of why children begin to smoke, and social and other theoretically-oriented psychologists should find this area a highly fruitful one within which to follow their own interests. Furthermore, Evans and his colleagues in Houston (Evans, Rozelle, Mittlemark, Hansen, Bane, and Havis, 1978) and Luepker and his colleagues in Minneapolis (Hurd, Johnson, Pechacek, Bast, Jacobs, and Luepker, 1980) each have shown that the rate of smoking among pre-teen age sixth and seventh graders could be reduced by 50 per cent or more through the use of educational programs which they skillfully-crafted from knowledge now available to social psychologists.

Additionally, one need not wait until the middle or end of the life cycle (as is shown in Figures 2, 4, and 5) to see the costs of beginning to smoke in one's teen age years. Smoking takes its toll long before that, and even on the fetus in its mother's womb. Figure 7 from Califano (1979c) shows that the birthweight of babies

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Insert Figures 7 and 8 about here  
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born to mothers who smoke is significantly lower than is that of newborns whose mothers do not smoke. Inasmuch as below average birthweight

is associated with impairment in intellectual abilities and a wide range of physical disabilities, the contribution of psychology as but one relevant discipline to finding ways to deter mothers from smoking during pregnancy will go a long way toward cutting down the human and dollar costs now paid by our society in the lifetime health expenditure associated with the offspring of smoking mothers.

### Alcohol Use

Unlike tobacco which Columbus introduced into Europe relatively recently, alcohol has been used by humans since time immemorial. Until the present generation, however, little was known of the probable costs to society of alcohol abuse. Some recent estimates of the costs associated with the marked abuse which results in chronic alcoholism place these annually at 42 billion dollars for the total economic costs and at 864 million dollars for the costs related to the treatment of alcoholism (Vischi et al, 1980, p. 95). A recent literature review by Streissguth, Dwyer, Martin, and Smith (1980) goes beyond the costs associated with chronic alcoholism and reveals an additional frightening finding. Namely, that the effect on the fetus of alcohol ingested by soon-to-be mothers who are merely social drinkers (2-3 drinks per day) may be even more devastating than is the effect of tobacco on the fetus of such normal appearing mothers. Specifically, in the human fetus exposed to alcohol during gestation, the effect may be fetal alcohol syndrome (FAS), a condition characterised by mental retardation and a variety of related physiologic abnormalities in some offspring. As a matter of fact, based on their estimated prevalence for FAS of one such afflicted child per 750 births in the general population, Streissguth et al. (p. 356) conclude that these rates "make FAS one of the most common forms of mental retardation with a known etiology." Furthermore, additional recent reports by Galanter (1980) and by Parker, Birnbaum, Boyd, and Noble (1980), reveal the equally frightening findings that social drinking in young adults may produce marked loss of cognitive and neuropsychological capacities previously believed to be affected only by long term chronic alcoholism. When one acknowledges, as reported by Califano (1979b) and as is shown in Figure 8, that problem drinking is present even in teen age youth, the long term human costs of both social and problem drinking must be addressed now.

Evidence for the deleterious effect of tobacco and alcohol on the health of our youth and older citizens thus is overwhelming. Will psychologists, members of a discipline with a long history of

experience in the study of persuasion and behavior change, do their part to reduce this national waste in human mortality and morbidity and in billions of dollars annually?

#### Healthier Diets and Related Risk Reduction

There is a consensus among leaders in cardiology that the use by Americans of too much salt in our daily meals is related to the increasing numbers of us suffering from high blood pressure and from related cardiovascular dysfunctions. Furthermore, although not unanimous in this opinion, many cardiologists believe that too much fat and cholesterol characterize the average American diet and these factors, too, result in increased morbidity and mortality due to cardiovascular dysfunction. Two groups (made up of psychologists, physicians and other colleagues) recently have provided examples of approaches behavioral scientists now are developing to help reduce the human and dollar costs associated with these additional risk factors.

Foreyt, Scott, Mitchell, and Gotto (1979) and Meyer, Nash, McAllister, Maccoby, and Farguhar (1980) recently reported from Houston and from Stanford, respectively, a striking reduction in their respective communities in the number of individuals at risk for heart disease due to risks associated with poor diet, smoking, and not enough exercise. Through the use of an educational intervention package which included either a diet booklet, or education in nutrition, or behavioral intervention utilizing group discussion, or a combination of these procedures, Foreyt, et al. showed that the levels of cholesterol in their target population could be reduced significantly. However, as is shown in Figure 9 the maintenance of these initial losses beyond six months did not occur.

Meyer et al. in Stanford used (with seemingly more maintenance of this success at follow up) a mass media campaign utilizing television, radio, newspaper, billboards, bus posters, and direct mail

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Insert Figure 9 about here  
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leaflets, as well as face to face techniques as components of their intervention and produced significant decreases in their target samples in some of the risk factors associated with cardiovascular disease. Although there are problems with this Stanford research program which have been addressed by Kasl (1980) and by Leventhal,

Safer, Cleary, and Gutmann (1980), and rebutted in turn by Meyer, Maccoby, and Farguhar (1980), it is clear that this Stanford group, in common with the Foreyt group in Houston, is making headway in the application of psychological knowledge in the decrease or prevention of a number of behavioral risks associated with an increased probability of cardiovascular disease. Reducing the costs associated with an cardiovascular diseases has been given a high priority both by the Congress of the United States and the National Heart, Lung, and Blood Institute and, thus, a relatively large source of monies for research and research training await psychology departments and individual psychologists with a genuine interest in this challenging field (Matarazzo, 1980a).

### Automobile and Motorcycle Accidents

The human and dollar costs annually associated with not only the levels of mortality (shown earlier in Figure 6) and also with the morbidity which results from automobile and motorcycle accidents extracts human and health expenditure costs from this country which are morally indefensible in the opinion of many of our nation's citizens and their legislative leaders. Therefore, is 1980 not the year to ask the scientific discipline with so much successful experience in human factors as these related to the man-machine systems used during World War II to divert some of its investigative resources to the perplexing problem of why Americans will not use seat belts despite the overwhelming demonstrated evidence of their success in reducing mortality and morbidity in those of us who do snap them on?

### Dwindling Funds for Research and Research Training in Traditional Areas: An Added Challenge

Thus far I have focused on the waste of a large portion of our country's annual gross national product on the unnecessary and preventable health expenditures described above. However important to our economic viability will be the bringing to an end of this unnecessary and morally indefensible human and dollar wastage, there is also another reason why psychology through the actions of individual psychologists should deploy some of its talent to cutting our nation's health expenditures. This reason is the sobering fact that after three decades of steady annual increases since 1947, the monies in real (constant) dollars available in our country to train more health-related educators and scientists, including psychologists, and to finance new research, peaked in the late 1960's and soon even may begin to decline. The data in Figures 10

and 11 and Table 5, provided by NIH (Carrigan, Armstrong, and Moehring, 1967; Stetten, 1980), and by a leader in private philanthropy (Rogers, 1980), are illustrative. Together with the

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Insert Figures 10 and 11 and Table 5 about here  
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dollar values portrayed in Table 1, the data in Figures 10 and 11 and Table 5 indicate that the era of annual increases in real dollar support for science has come to an end. Specifically, and in actual dollars (rather than inflation-nonadjusted real dollars), support of training programs in psychology by the National Institute of Mental Health actually increased from 6 million dollars in 1963 to 16 million in 1969 and reverted to 10 million dollars in 1979 (Vischi et al, 1980, p. 91).

Rather than bewail the fact of this halt in the annual increases in the amount of money available to train and support more and more young American educators, scientists, and practitioners, a few leaders see it as an opportunity and challenge for the health sciences to cut off the excess fat and waste they accumulated during their spectacular growth in the post World War II era and prune themselves into a trimmer shape for the challenges ahead. Rogers (1980) describes the changes which medical schools and biomedical research institutions can make to successfully survive the present decade of austerity. He writes "Rather than looking at a steady-state future with foreboding or resignation, we can view it as an exciting opportunity to use our talents more effectively than in the past and to make changes in academic medicine (e.g., redress the lack of loyalty of faculty to their current institution) that many will welcome" (p. 7).

Writing to the legions of scientists who began their careers in the recent past era of annually increasing NIH support, Stetten (1980) writes "It was not unusual to find a distinguished professor surrounded by a cloud of postdoctoral fellows who were actually conducting most of the experiments described in the professor's grant application . . . the award of a grant came to be regarded as a right rather than a privilege . . . The years immediately ahead promise an austerity to which we will have difficulty adapting" (P. 359). "(In regard to training), on the one hand, we can provide many insitutions with modest training grants; alternatively, we can provide a few outstanding institutions with large training grants" (pp. 361-362). "How does an institution react when dollars available for support of faculty or staff are reduced? An early event is clearly a reduction in the number of younger persons

brought on board . . . (and) the research productivity of (the remaining) faculty will gradually deteriorate" (p. 366).

What is the cure which Stetton proposes be applied to this malaise? He simply suggests we return to the less costly and seemingly better science of yesteryear, before big government financed big science so lavishly. He writes "Necessity, in the guise of (even a) zero budget, is the mother of invention in the form of ingenuity" (p. 369). And he cites as one example how Galileo determined without benefit of equipment or money that the relationship between distance traversed and time elapsed as a ball rolls down an inclined plane under the influence of gravity is that the distance traversed varies directly as the square of the time elapsed. Stetton concludes his essay by suggesting that as ". . . funds for research become seriously reduced, a selective benefit will result for the more ingenious members of the scientific fraternity. . . there is certainly a great deal of pay dirt remaining to be dug by pick and shovel, and not requiring massive bulldozers" (p. 369).

Chargaff (1980), a Columbia University Professor Emeritus of Biochemistry, is equally eloquent in his plea that today's new breed of scientists forego their dependence on large research budgets and associated teams consisting of large numbers of research personnel and, instead, return to the scientifically exciting and less costly problems which were handled by the individual scientists working alone or only with one or two colleagues. Science, what he calls "little science", was in fact produced in just such manner from its beginning as an enterprise until about 1940, according to Chargaff, and only in the past several decades did it become a highly complex, usually costly societal enterprise.

If these three scientist-social philosophers are correct, and I believe they are, the implication for psychology and the other scientific disciplines is clear. That is, despite the evidence I recently presented (Matarazzo, 1980a, Tables 1, 2, and 3) that federal support for training and research in behavioral health is increasing relative to more traditional fields (e.g., psychology, per se), the individual psychologist-scientist or doctoral student who wishes to try to help reduce this country's indefensible current levels of massive health expenditures does not necessarily need a large research budget to do it. Rather, a return by some among us to the habits of a former era in science, in which a good question was asked, or a novel approach was used to study an important problem, might certainly be in order. As was the case in the seminal discoveries by such individual psychologists as Alfred Binet, B. F. Skinner, Harry Harlow, and Stanley Schacter, to name only several, it conceivably could cost a creative psychologist

among us little or no money to discover, as examples, an effective way to get children not to begin to smoke or not to drink; or to motivate each and every American to wear our seat belts.

The figures and tables presented earlier in this paper present but a mere sketch of the responsibility of and the challenge to psychologists as individuals and to our collective discipline. Is it not about time we deployed some of the knowledge gained during psychology's first hundred years to these current questions which are so important to the health and economic survival of our nation? The behavior of the individual is today's unexplored frontier in the study and understanding of health. Every specialty of psychology has within its ranks individual psychologists with the potential to help map some of the important landmarks in this beckoning frontier.

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### Footnotes

<sup>1</sup>Invited address to the biannual meeting of the AMEDD Psychology Symposium, Washington, October 27, 1980.

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<sup>2</sup>The present cost of health care in the United States is expensive in part because our citizens themselves have opted to pay for hospital intensive care units. Computerized Axial Tomography scanners and other very costly diagnostic and critical care life support services. The present criticism is not directed at such justifiable costs but, instead, at the inordinate costs which are associated with health conditions which are preventable (e.g., those associated with smoking).

Table 1

TOTAL AND PER CAPITA NATIONAL HEALTH EXPENDITURES, BY  
SOURCE OF FUNDS AND PERCENTAGE OF GROSS NATIONAL PRODUCT (GNP)

| Calendar<br>Year | GNP (in<br>billions) | Health Expenditures     |               |             |                         |               |                                          |
|------------------|----------------------|-------------------------|---------------|-------------|-------------------------|---------------|------------------------------------------|
|                  |                      | Total                   |               | Private     |                         | Public        |                                          |
|                  |                      | Amount (in<br>billions) | Per<br>Capita | % of<br>GNP | Amount (in<br>billions) | % of<br>Total | Amount (in<br>billions)<br>% of<br>Total |
| 1950             | \$284.8              | \$12.7                  | \$82          | 4.5%        | \$9.2                   | 73%           | \$3.4 27%                                |
| 1955             | 398.0                | 17.7                    | 105           | 4.4         | 13.2                    | 74            | 4.6 26                                   |
| 1960             | 503.7                | 26.9                    | 146           | 5.3         | 20.3                    | 75            | 6.6 25                                   |
| 1965             | 688.1                | 43.0                    | 217           | 6.2         | 32.3                    | 75            | 10.7 25                                  |
| 1970             | 982.4                | 74.7                    | 359           | 7.6         | 47.5                    | 64            | 27.3 36                                  |
| 1975             | 1,528.8              | 131.5                   | 605           | 8.6         | 75.8                    | 58            | 55.7 42                                  |
| 1976             | 1,700.1              | 148.9                   | 679           | 8.8         | 86.6                    | 58            | 62.3 42                                  |
| 1977             | 1,887.2              | 170.0                   | 769           | 9.0         | 100.7                   | 59            | 69.3 41                                  |
| 1978a/           | 2,107.6              | 192.4                   | 863           | 9.1         | 114.3                   | 59            | 78.1 41                                  |

a/ Preliminary estimates. Adapted from Vischi et al, 1980, p. 131.

Table 2

Percentages of Current and Former Male and Female Adult Smokers in  
the United States in Different Age Groups

(Adapted from Califano, 1979 c, p. 10 Appendix).

|                | 1955              |                  |  | 1964              |                  |  | 1966              |                  |  | 1970              |                  |  | 1975              |                  |  |
|----------------|-------------------|------------------|--|-------------------|------------------|--|-------------------|------------------|--|-------------------|------------------|--|-------------------|------------------|--|
|                | Current<br>smoker | Former<br>smoker |  | Current<br>smoker | Former<br>smoker |  | Current<br>smoker | Former<br>smoker |  | Current<br>smoker | Former<br>smoker |  | Current<br>smoker | Former<br>smoker |  |
| <b>Males</b>   |                   |                  |  |                   |                  |  |                   |                  |  |                   |                  |  |                   |                  |  |
| 21-24          | 51.4              | 3.6              |  | 67.0              | 9.5              |  | 61.9              | 7.2              |  | 49.8              | 20.0             |  | 41.3              | 16.0             |  |
| 25-34          | 53.4              | 9.0              |  | 59.9              | 18.0             |  | 59.9              | 19.7             |  | 46.7              | 27.9             |  | 43.9              | 22.5             |  |
| 35-44          | 62.1              | 11.1             |  | 59.9              | 22.9             |  | 59.0              | 21.9             |  | 48.6              | 31.4             |  | 47.1              | 25.8             |  |
| 45-54          | 56.9              | 12.6             |  | 53.1              | 25.3             |  | 53.8              | 26.0             |  | 43.1              | 34.4             |  | 41.1              | 36.0             |  |
| 55-64          | 43.6              | 15.7             |  | 50.9              | 24.5             |  | 47.7              | 31.0             |  | 37.4              | 41.4             |  | 33.7              | 38.8             |  |
| 65+            | 22.3              | 13.6             |  | 29.9              | 27.0             |  | 27.8              | 29.5             |  | 22.8              | 43.8             |  | 24.2              | 36.2             |  |
| All ages       | 52.6              | 10.9             |  | 52.9              | 22.2             |  | 51.9              | 23.6             |  | 42.3              | 32.6             |  | 39.3              | 29.2             |  |
| <b>Females</b> |                   |                  |  |                   |                  |  |                   |                  |  |                   |                  |  |                   |                  |  |
| 21-24          | 29.7              | 3.5              |  | 41.9              | 7.6              |  | 49.2              | 7.9              |  | 32.3              | 13.2             |  | 34.0              | 19.9             |  |
| 25-34          | 35.8              | 5.8              |  | 40.6              | 9.3              |  | 45.1              | 12.0             |  | 40.3              | 18.9             |  | 35.4              | 16.5             |  |
| 35-44          | 32.4              | 4.9              |  | 39.2              | 9.4              |  | 40.6              | 10.5             |  | 38.8              | 15.8             |  | 36.4              | 17.7             |  |
| 45-54          | 22.8              | 3.9              |  | 36.4              | 6.8              |  | 42.0              | 9.6              |  | 36.1              | 15.5             |  | 32.8              | 15.5             |  |
| 55-64          | 10.8              | 2.6              |  | 20.5              | 7.0              |  | 20.6              | 10.5             |  | 24.2              | 16.0             |  | 25.9              | 15.0             |  |
| 65+            | 3.5               | 1.6              |  | 7.8               | 3.3              |  | 7.6               | 5.2              |  | 10.2              | 8.2              |  | 10.2              | 10.7             |  |
| All ages       | 24.5              | 3.9              |  | 31.5              | 7.4              |  | 33.7              | 9.4              |  | 30.5              | 14.8             |  | 28.9              | 14.5             |  |

Table 3

Percentages of Current, Regular Teen Age Cigarette Smokers in the United States by Age Group (Adapted from Califano, 1979 c, p. 14, Appendix).

| Year | Ages 12-14 |        | Ages 15-16 |        | Ages 17-18 |        | Ages 12-18 |        |
|------|------------|--------|------------|--------|------------|--------|------------|--------|
|      | Male       | Female | Male       | Female | Male       | Female | Male       | Female |
| 1968 | 2.9        | 0.6    | 17.0       | 9.6    | 30.2       | 18.6   | 14.7       | 8.4    |
| 1970 | 5.7        | 3.0    | 19.5       | 14.4   | 37.3       | 22.8   | 18.5       | 11.9   |
| 1972 | 4.6        | 2.8    | 17.8       | 16.3   | 30.2       | 25.3   | 15.7       | 13.3   |
| 1974 | 4.2        | 4.9    | 18.1       | 20.2   | 31.0       | 25.9   | 15.8       | 15.3   |

Table 4

Percent Distribution of U. S. 17-Year-Old Youths Who Had Ever Tried Smoking  
by Age at Which They First Tried Smoking, According to Current Smoker  
Status and Sex (Adapted from Califano, 1979b, p. 351).

| Current smoker status and sex        | Age at which 17-yr-old youths first tried smoking (percent distribution) |                |      |      |       |       |       |       |       |       |       |       | Median age in 17 yr years |
|--------------------------------------|--------------------------------------------------------------------------|----------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
|                                      | All ages                                                                 | 7 yr and under | 8 yr | 9 yr | 10 yr | 11 yr | 12 yr | 13 yr | 14 yr | 15 yr | 16 yr | 17 yr |                           |
| Total                                |                                                                          |                |      |      |       |       |       |       |       |       |       |       |                           |
| Both sexes-----                      | 100.0                                                                    | 5.9            | 3.4  | 5.4  | 7.1   | 3.6   | 12.8  | 12.0  | 13.9  | 16.0  | 15.2  | 4.6   | 14.5                      |
| Boys-----                            | 100.0                                                                    | 6.9            | 4.7  | 7.5  | 8.6   | 4.5   | 14.6  | 11.6  | 13.5  | 14.6  | 9.6   | 4.1   | 13.8                      |
| Girls-----                           | 100.0                                                                    | 4.6            | 1.9  | 2.8  | 5.3   | 2.6   | 10.7  | 12.5  | 14.5  | 17.8  | 22.1  | 5.3   | 15.2                      |
| Tried smoking but not regular smoker |                                                                          |                |      |      |       |       |       |       |       |       |       |       |                           |
| Both sexes-----                      | 100.0                                                                    | 6.3            | 3.4  | 6.0  | 7.7   | 4.2   | 12.8  | 11.1  | 11.2  | 15.9  | 16.7  | 4.8   | 14.3                      |
| Boys-----                            | 100.0                                                                    | 6.8            | 6.0  | 8.0  | 10.7  | 6.0   | 15.6  | 10.1  | 11.7  | 11.8  | 10.3  | 3.7   | 13.3                      |
| Girls-----                           | 100.0                                                                    | 5.9            | 1.1  | 4.3  | 5.8   | 2.7   | 10.4  | 11.9  | 10.7  | 19.3  | 22.1  | 5.8   | 15.2                      |
| Regular smoker                       |                                                                          |                |      |      |       |       |       |       |       |       |       |       |                           |
| Both sexes-----                      | 100.0                                                                    | 6.4            | 4.5  | 4.3  | 8.0   | 4.3   | 14.5  | 11.2  | 17.7  | 14.6  | 11.5  | 3.2   | 13.2                      |
| Boys-----                            | 100.0                                                                    | 8.2            | 4.9  | 6.6  | 8.7   | 4.7   | 15.8  | 11.5  | 14.8  | 14.3  | 7.6   | 2.9   | 12.6                      |
| Girls-----                           | 100.0                                                                    | 3.2            | 3.6  | ---  | 6.8   | 3.5   | 12.1  | 10.6  | 23.0  | 15.0  | 18.5  | 3.7   | 13.9                      |

Table 5

The Average Dollar Level of Support of NIH  
Traditional Research Project Grants

| Fiscal<br>Year | Average*<br>\$ per Grant<br>(Total) | Average*<br>\$ per Grant<br>(Direct) | Percentage<br>of Total<br>(Indirect) |
|----------------|-------------------------------------|--------------------------------------|--------------------------------------|
| 1968 . . . . . | 35.1                                | 28.5                                 | 18.8                                 |
| 1969 . . . . . | 33.5                                | 26.5                                 | 20.9                                 |
| 1970 . . . . . | 32.9                                | 25.6                                 | 22.2                                 |
| 1971 . . . . . | 35.2                                | 27.1                                 | 23.0                                 |
| 1972 . . . . . | 37.3                                | 28.2                                 | 24.4                                 |
| 1973 . . . . . | 37.6                                | 28.1                                 | 25.3                                 |
| 1974 . . . . . | 39.4                                | 29.2                                 | 25.9                                 |
| 1975 . . . . . | 36.5                                | 27.0                                 | 26.0                                 |
| 1976 . . . . . | 36.4                                | 26.5                                 | 27.2                                 |
| 1977 . . . . . | 38.3                                | 27.8                                 | 27.4                                 |

\*In constant (1968) dollars, in thousands      Adapted from Stetten, 1980, p. 361.



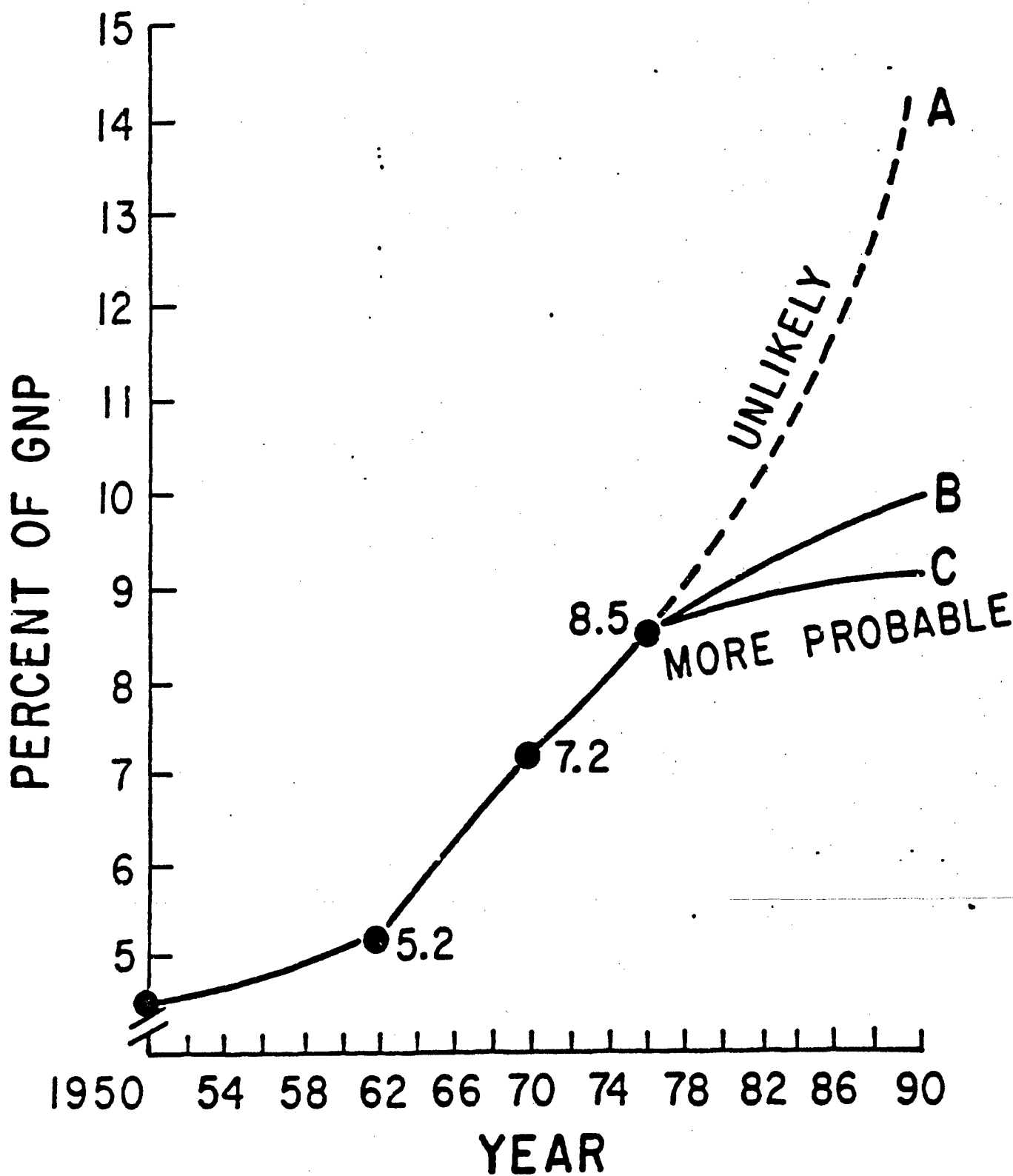


Figure 1: Annual National Health Expenditures in United States Expressed as a Percent of Gross National Product (Adapted from Rogers, 1980, p. 5).

## SELECTED YEARS, 1900-1977

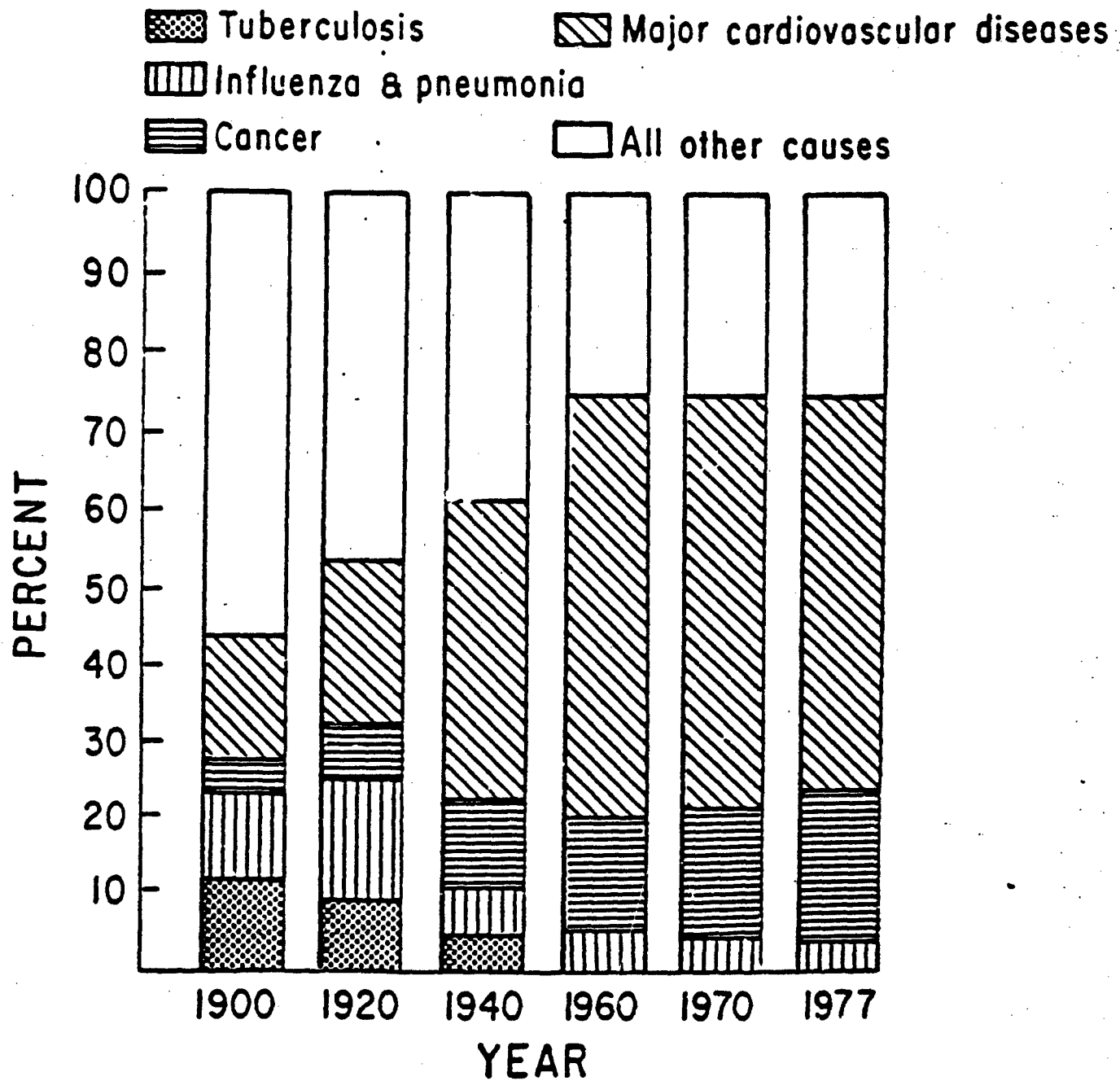


Figure 2: United States Deaths From Selected Causes Expressed as a Percent of all Deaths (Adapted from Califano, 1979a, p. 4).

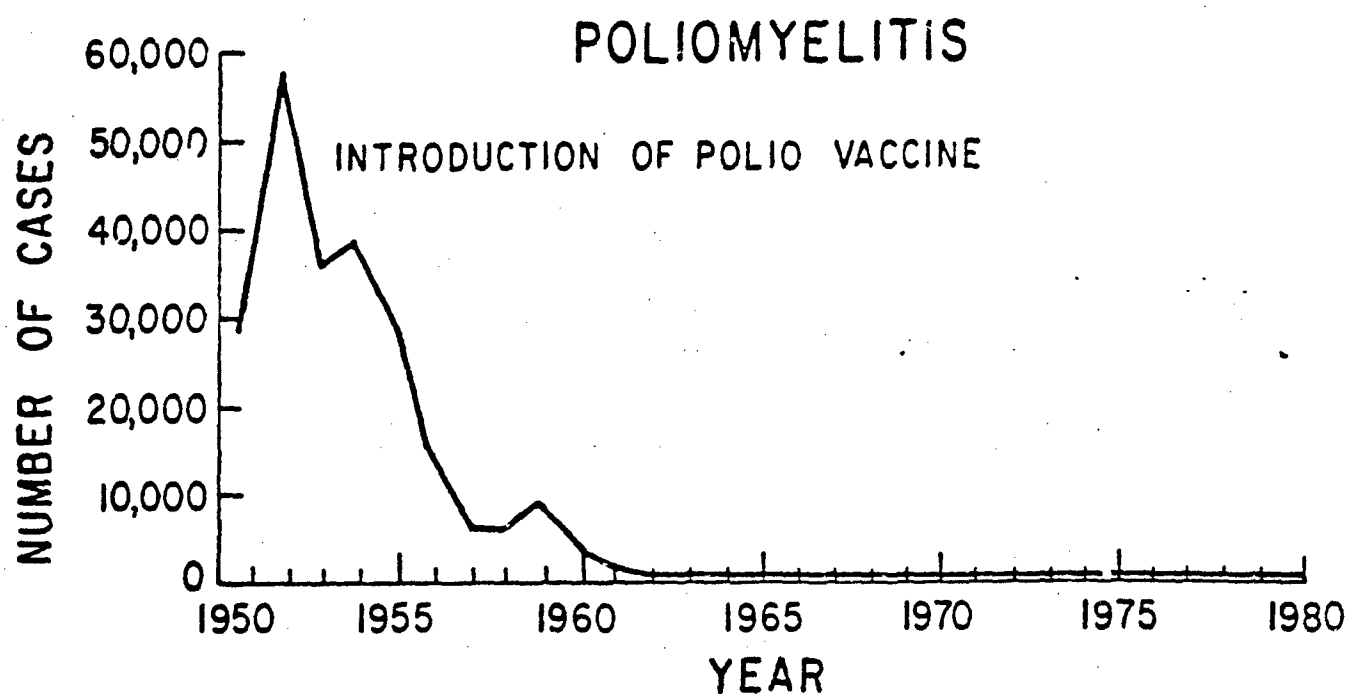
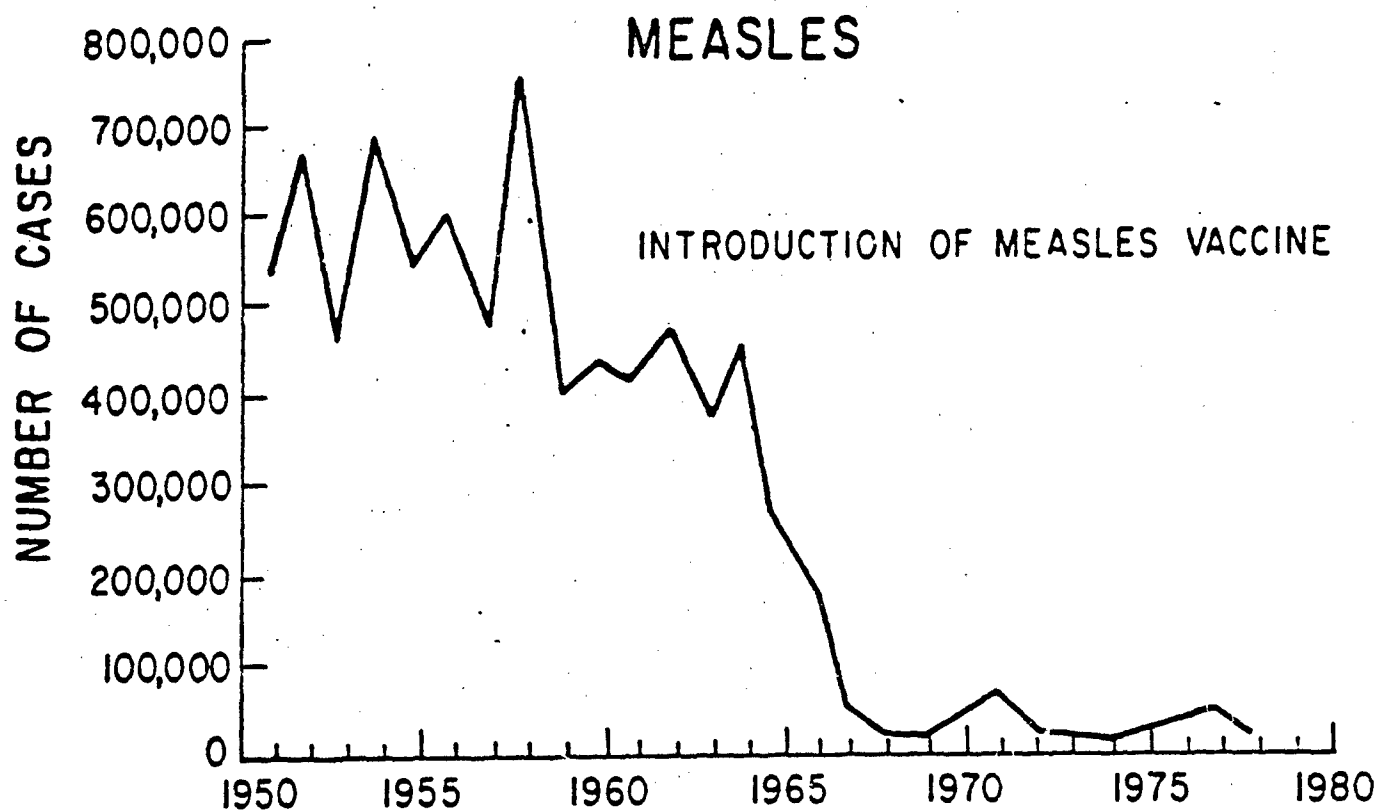


Figure 3: Number of cases of Measles and Poliomyelitis Reported in the United States (Adapted from Califano, 1979a, p. 94).

DEATHS PER 100,000 PER YEAR

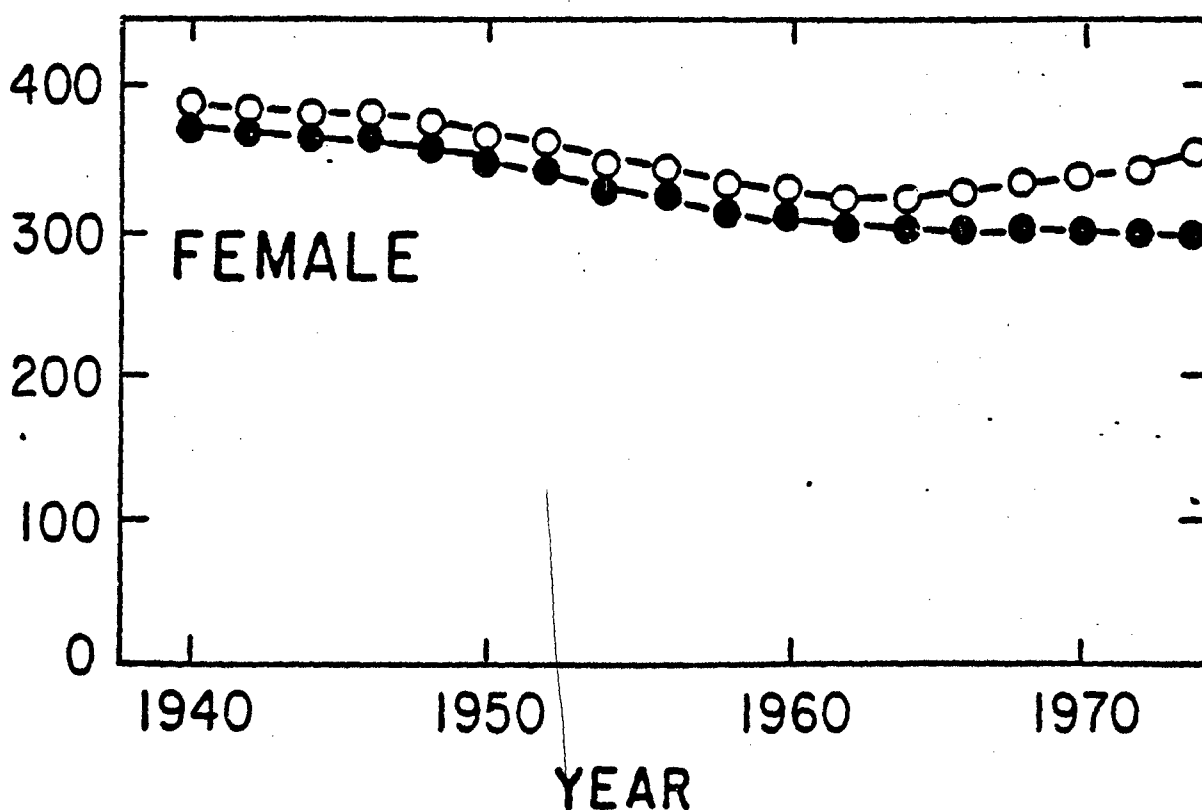
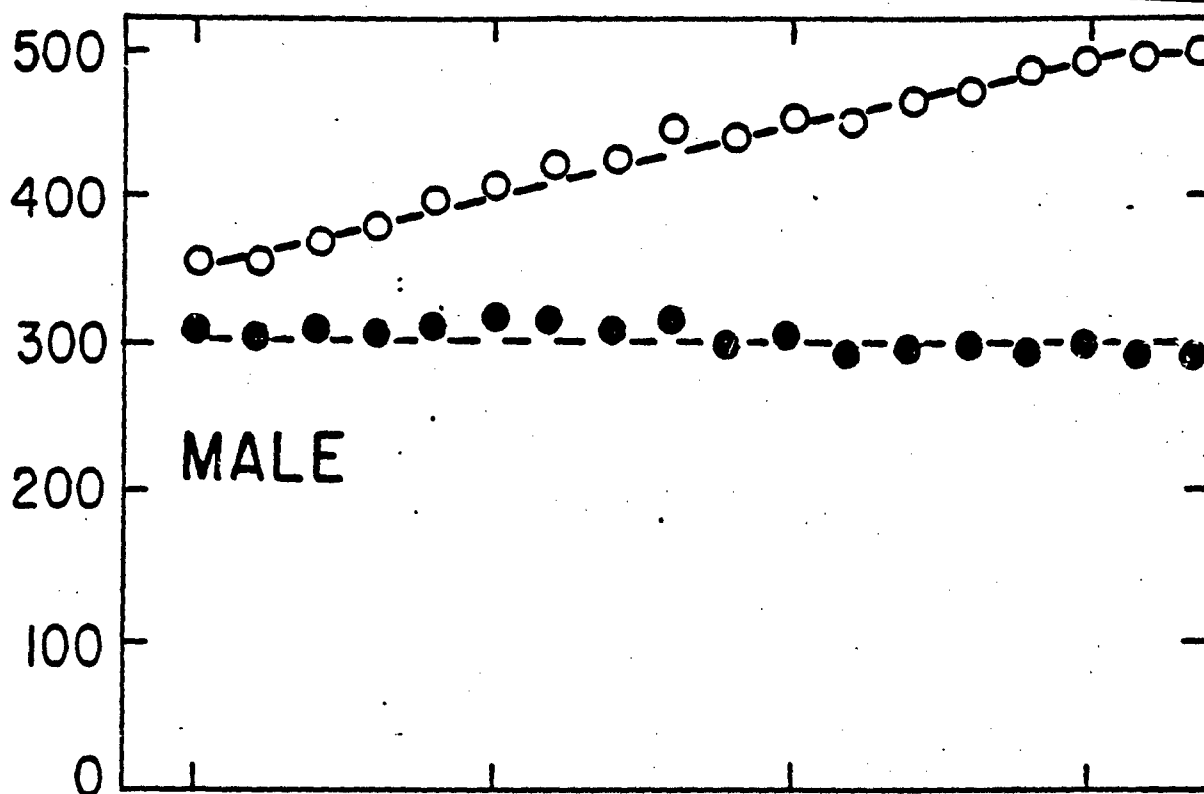


Figure 4: Annual Mortality from Cancers in the United States for White Adult Males and Females: Dark Circles Denote all Cancers, Light Circles Denote Lung Cancers (Adapted from Califano, 1979b, p. 162).

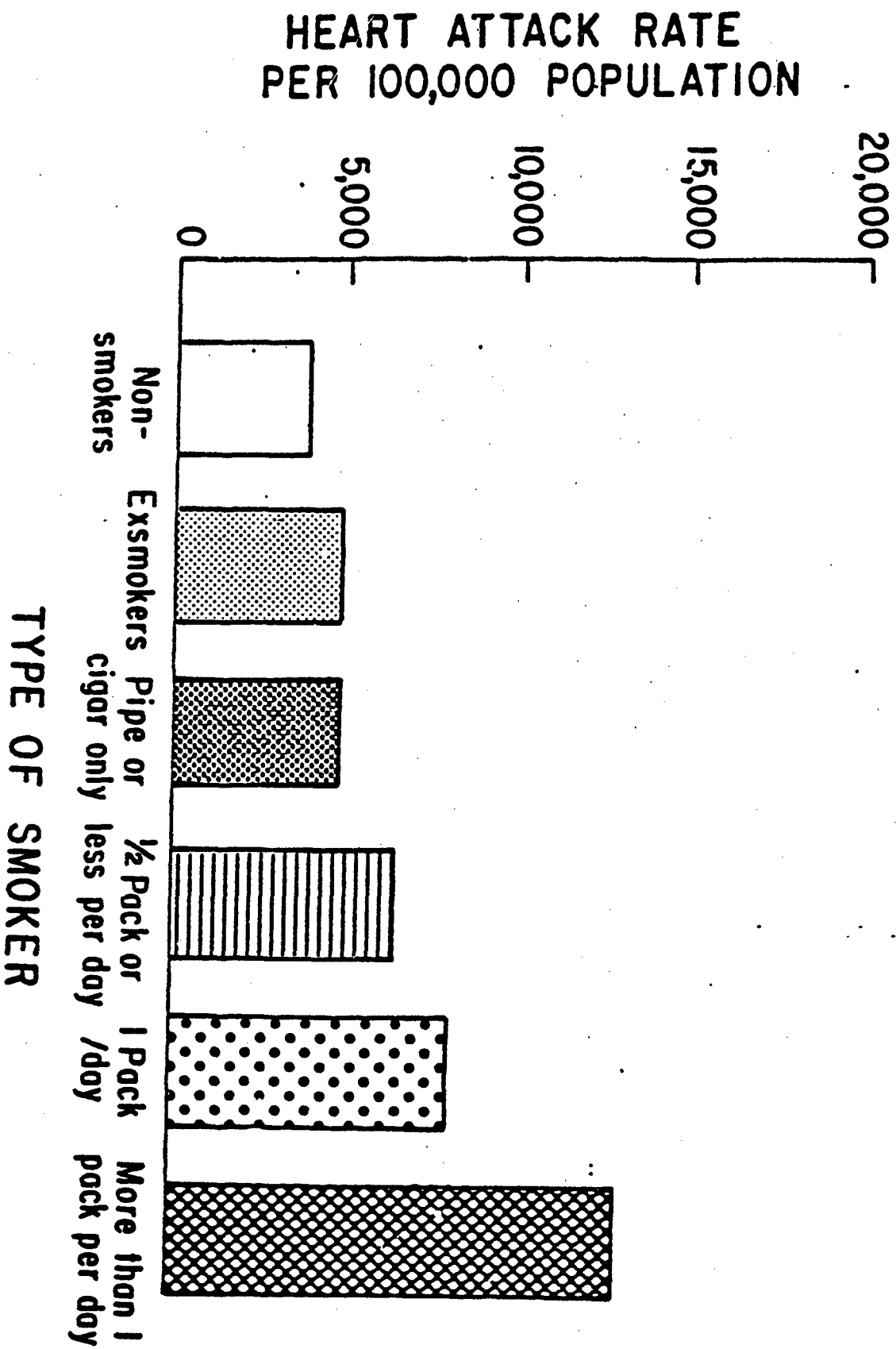
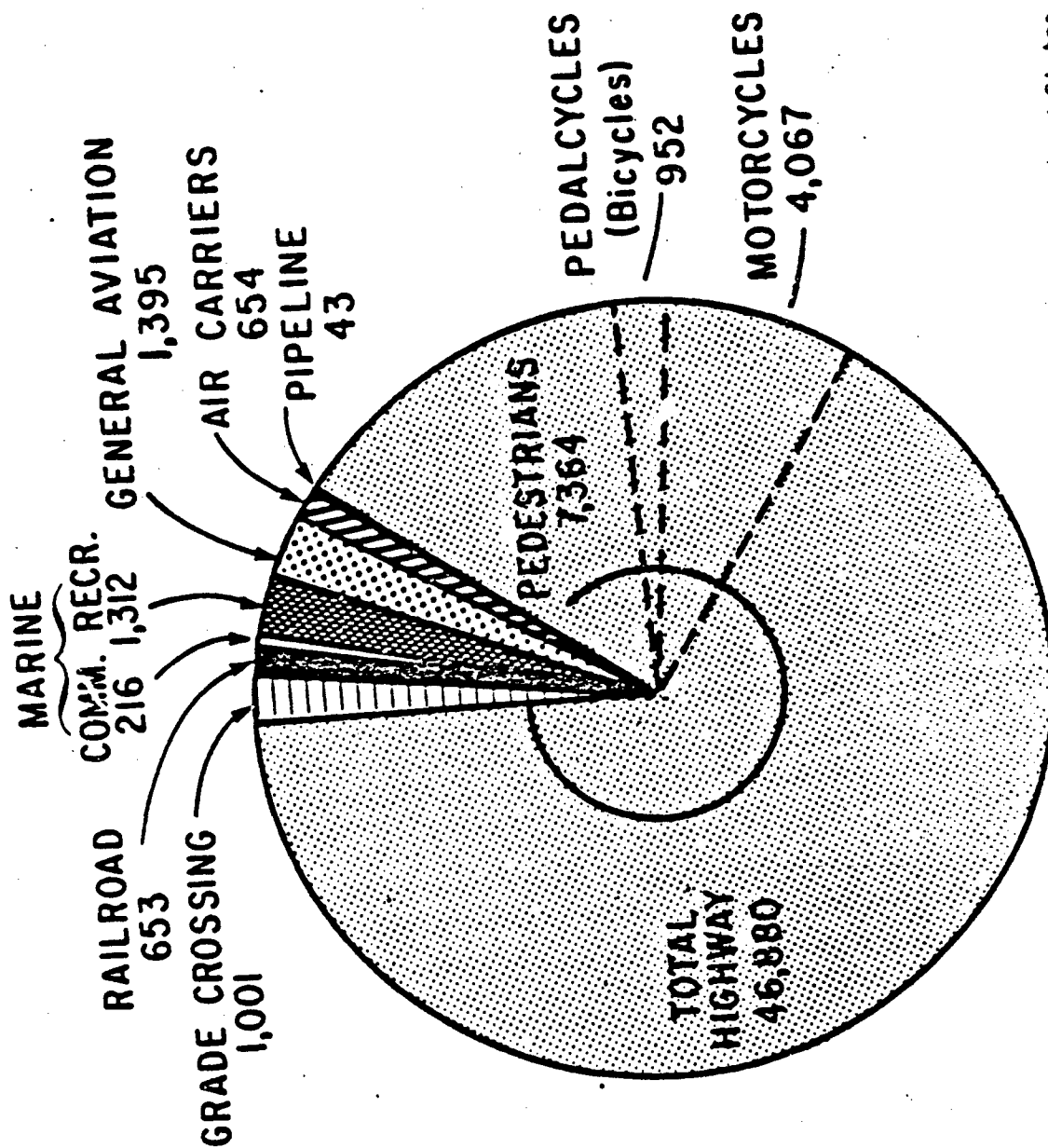
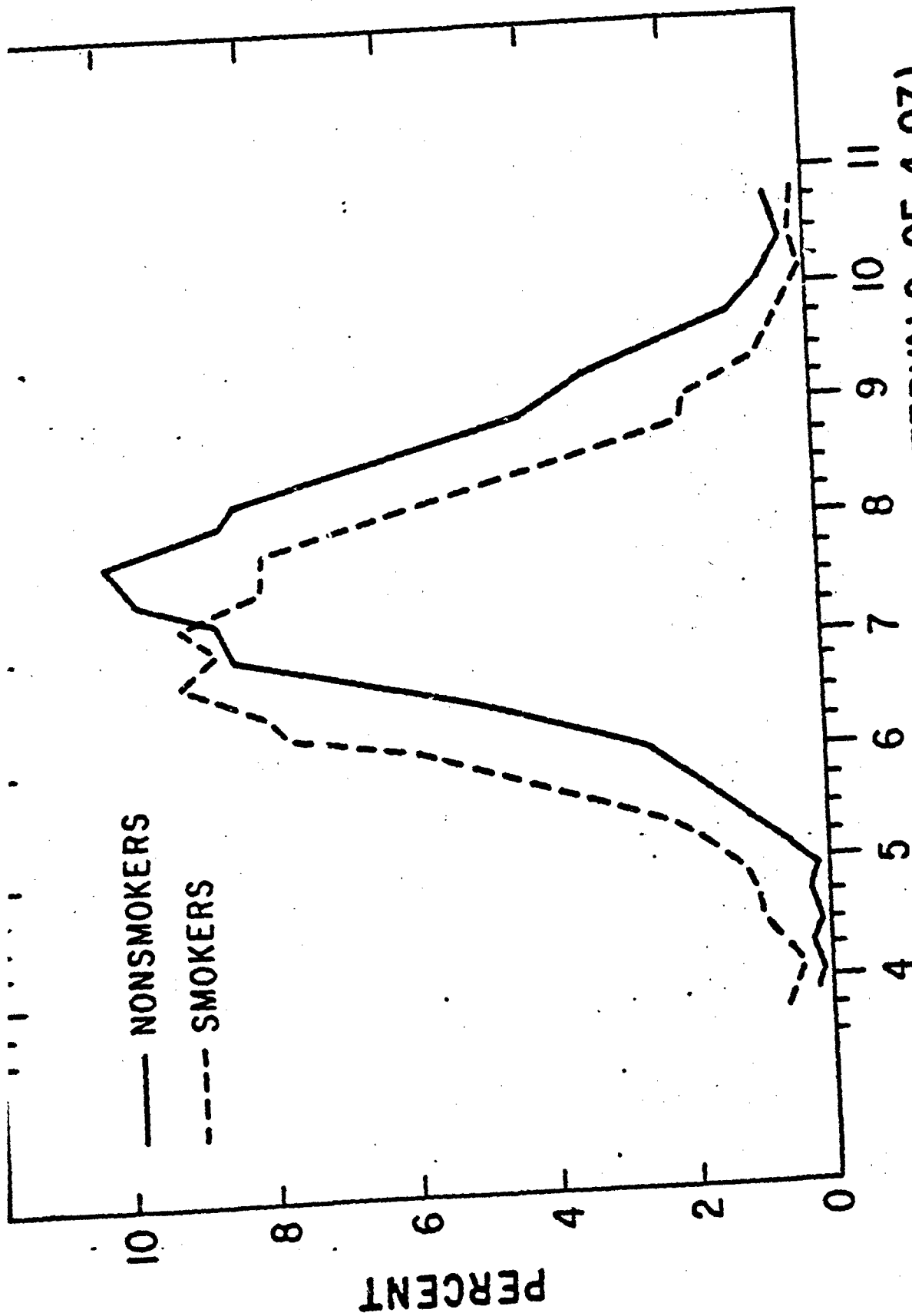


Figure 5: Age-Adjusted Rates of first Heart Attack for United States White Males Ages 30-59 Categorized by Smoking Status (Adapted from Califano, 1979a, p. 58).

# TRANSPORTATION FATALITIES 52,154 IN 1977



Transportation Fatalities in the United States



### BIRTH WEIGHT (SCALE IN POUNDS: INTERVALS OF 4 OZ)

Figure 7: Percentage Frequency Distribution by Birth Weight of Infants of Mothers Who Did Not Smoke During Pregnancy and of Mothers Who Did Smoke During Pregnancy (Adapted from Califano, 1971)

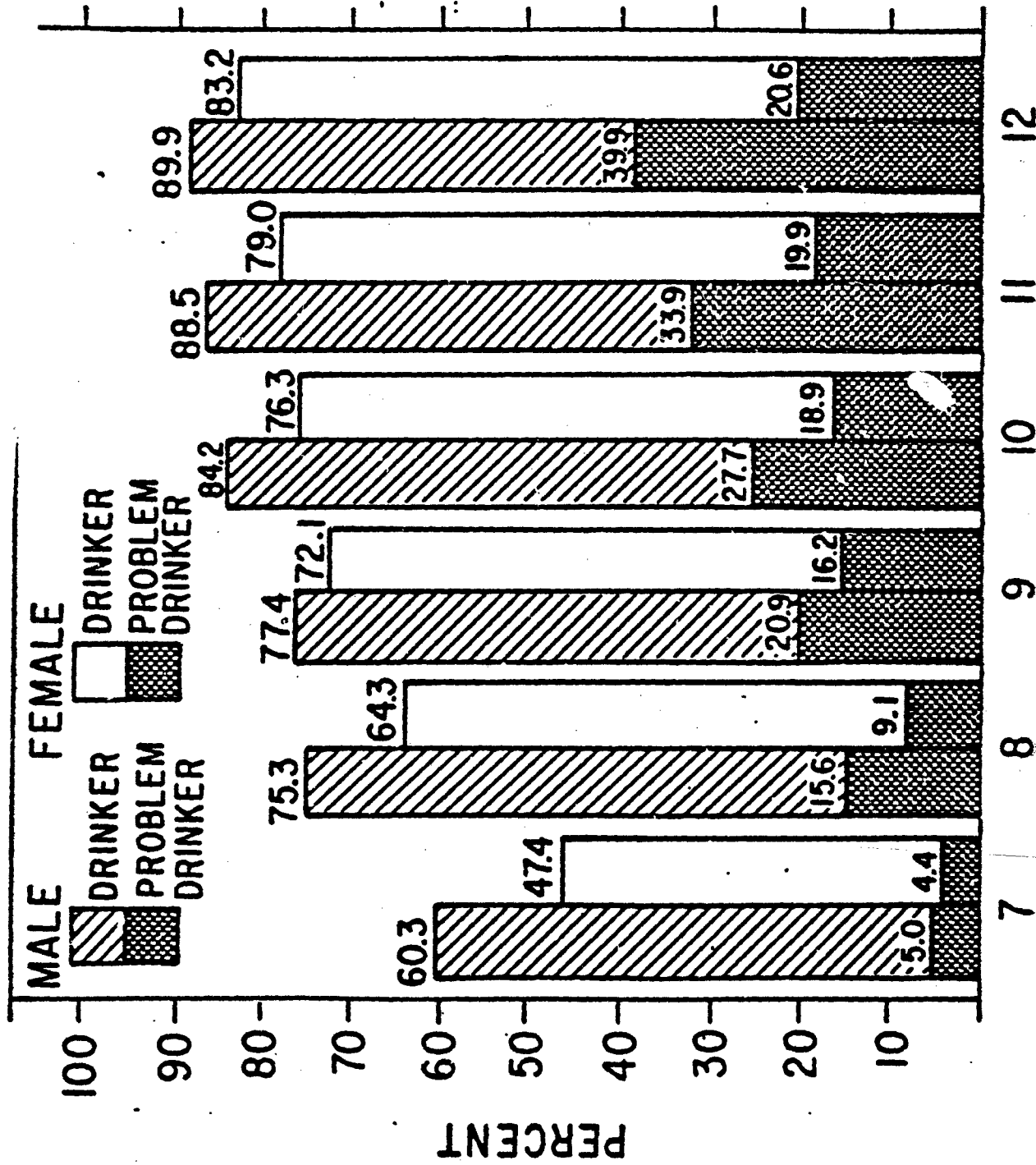


Figure 2. Percent of Youngsters in Grades 7 Through 12 Who Admitted Being Drinkers or Problem Drinkers or Trouble Related to Drinking



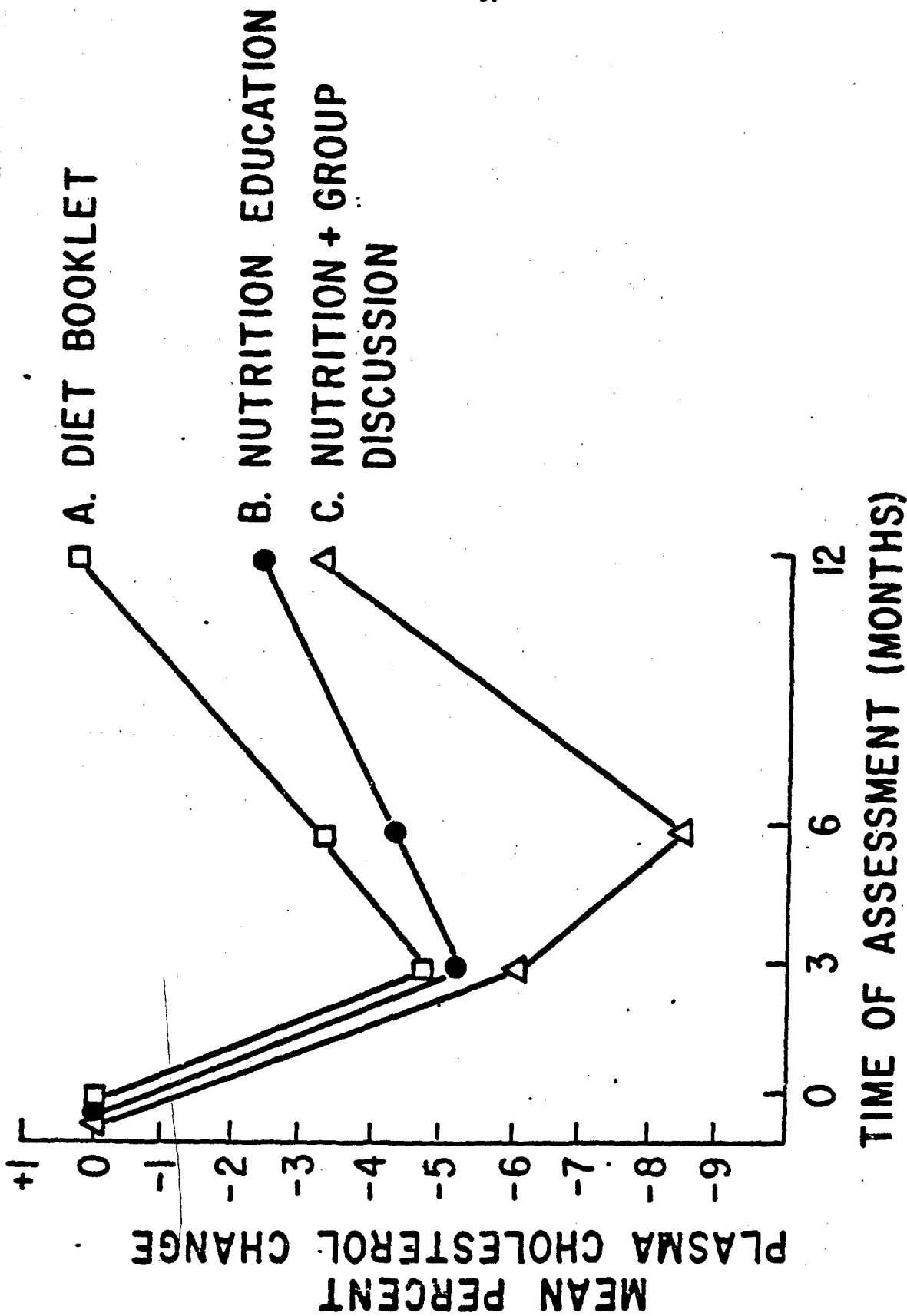


Figure 9: Mean Percentage Change in Plasma Cholesterol in Three Groups Receiving Different Interventions (Adapted from Foreyt, Scott, Mitchell, & Gotto, 1979, p. 449).

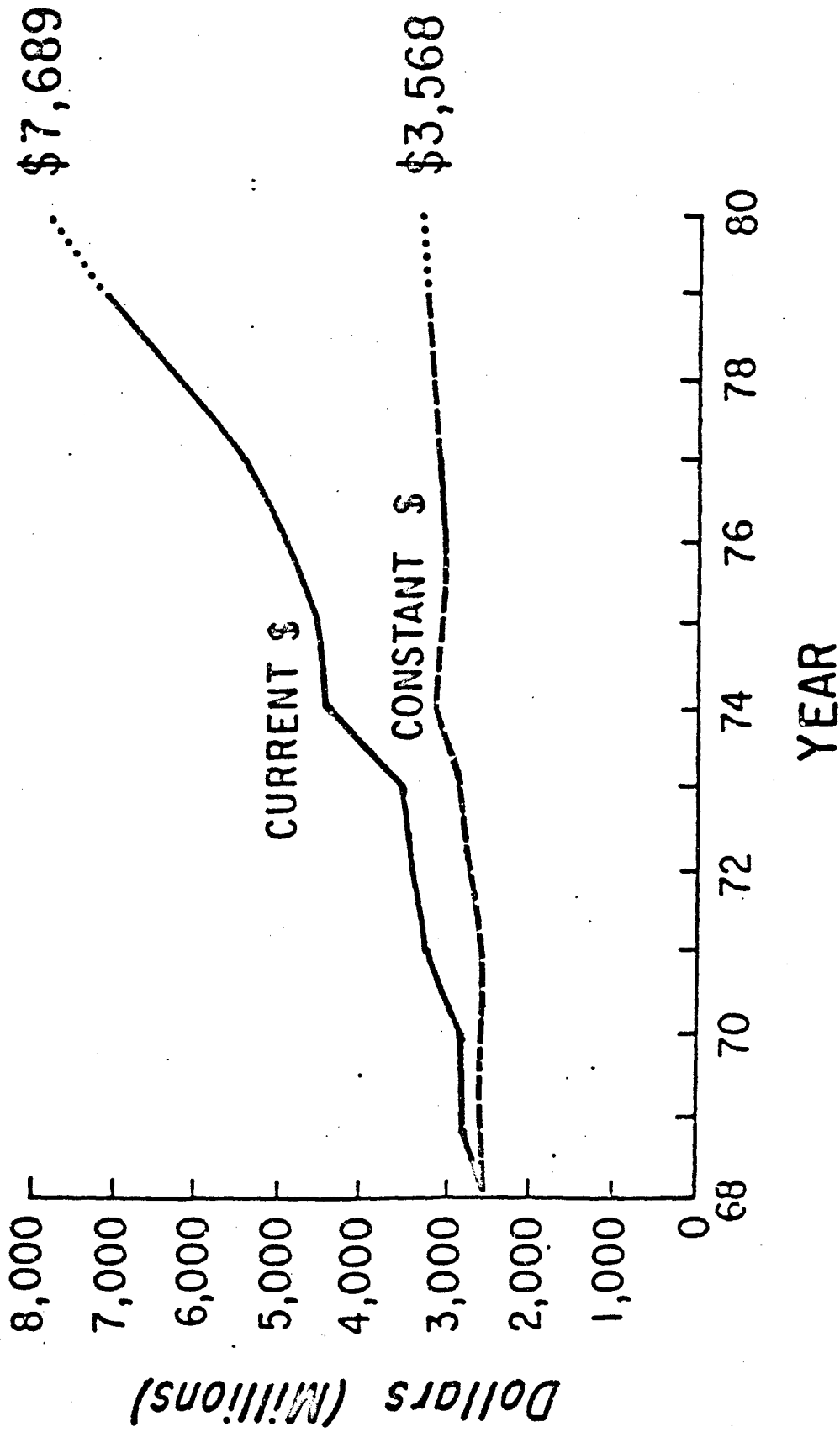


Figure 16: Total National Support for Health Research and Development in Current and Constant (1968) Dollars  
(Adapted from Stetten, 1980, p. 358, and Carrigan et al., 1980, p. 4).

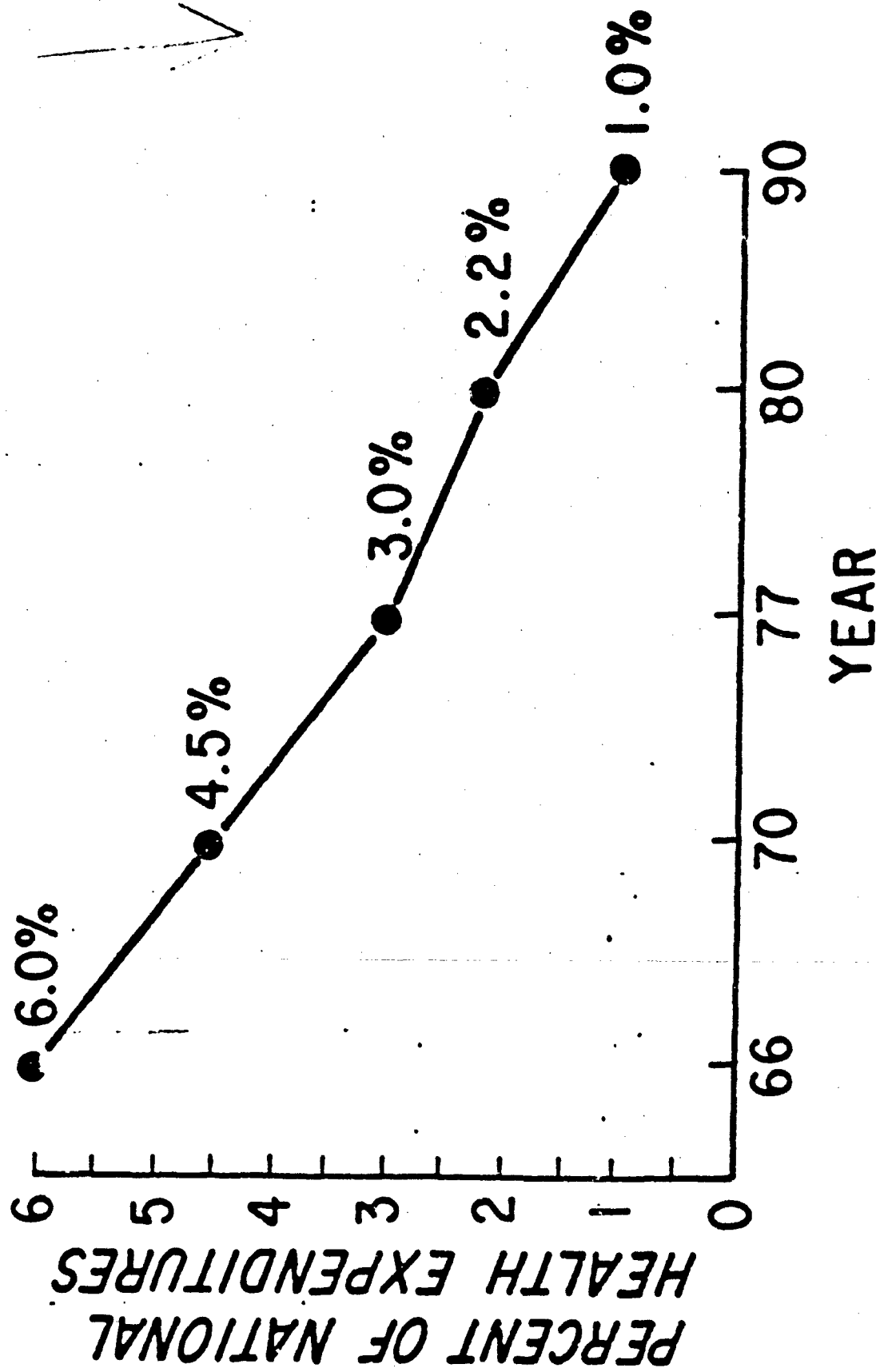


Figure 11: Percent of Health Expenditures in The United States From Private Philanthropy, 1966-1990  
(Adapted from Rogers, 1980, p. 6).

# COMPONENT PART NOTICE

THIS PAPER IS A COMPONENT PART OF THE FOLLOWING COMPILATION REPORT:

(TITLE): Proceedings of the AMEDD Psychology Symposium Held at Washington, DC  
on 27-31 October 1980.

(SOURCE): Academy of Health Sciences (Army)  
Fort Sam Houston, TX

TO ORDER THE COMPLETE COMPILATION REPORT USE AD-A147 332.

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|               | Gender Units                                              |
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|               | A.D.                                                      |
| P004 081      | Meeting the Chemical Threat Psychiatric Casualties in a   |
|               | Chemical Environment                                      |
| P004 082      | Psychiatric Casualties in Future Conflicts: Estimates,    |
|               | Management and Treatment                                  |
| P004 083      | Credentialing of the Military Psychologist (Licensing     |
|               | and the National Exam)                                    |
| P004 084      | Psychological Assessment of Military Criminal Defendants  |
| P004 085      | Stress Reactions of Military Personnel                    |
| P004 086      | Changing Trends in CMHA Referrals. Assessment of Fort     |
|               | Gordon CMHA Case Files--1977-1979: Preliminary Findings   |
| P004 087      | Contracting for Change with Adult Outpatients             |
| P004 088      | Sense and Nonsense in the Army Drug Prevention Program    |
| P004 089      | The Psychologist Retention Study - Updated                |
| P004 090      | Job Satisfaction between Two Groups of Army Pharmacists   |
| P004 091      | Military Family Counselling                               |
| P004 092      | Primary Prevention and the Military or Where is the Broad |
|               | Street Pump Now?                                          |
| P004 093      | The Psychologist as the Evaluator of Soldiers through     |
|               | Command Consultation: A Model of Family Systems Unit      |
|               | Consultation                                              |

✓  
Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

## THE STATE OF THE MEDICAL SERVICE CORPS

James J. Young

Chief, Medical Services Corps

### INTRODUCTION

It is a pleasure for me to be with you this afternoon. I am pleased to say that the Corps is presently in a healthy posture. With the help of the assistant chiefs and consultants, some significant policy changes and programs were affected during the past year. In the time allotted to me, I will briefly highlight certain policies and programs concerning the Corps-at-large, which may be of interest to you, and then direct my comments to the psychology career field. Following my remarks, I shall be open to your questions both regarding the Corps as well as the Army Medical Department or Army-at-large.

### DISCUSSION

#### A. Active Duty Strength

1. Because of the rapid growth in health services technology and the highly integrated, multidisciplinary character of modern health services, the demand for Medical Service Corps officers in a host of administrative, clinical, research, and scientific specialties is overwhelming.

VU-Graph 1 - On --- Strength Data by Section

2. Despite the fact that we are at strength, the Corps continues to have the problem of grade level and skill mix imbalance.

VU-Graph 1 - Off

VU-Graph 2 - On --- MSC Active Duty Strength

3. As of 30 September, the Corps was over 22 lieutenant colonels and short 74 majors and 269 captains.

4. 12 officers in excess of authorized end strength at end of the fiscal year. Overstrength due primarily to increased short term extensions in grade of first lieutenant.

VU-Graph 2 - Off

5. As a result of certain initiatives, it is projected that the critical shortfall in the grade of captain will be eliminated by end FY 82 and the shortfall in majors will be significantly reduced by the end of FY 81.

a. Decision to compress TIs to captain from 54 to 48 months as well as decision to use the fully qualified method of selection on the December 1979 and July 1980 Captain AUS Boards should eliminate the shortfall by the end of FY 82.

b. The 1 October Captain AUS list includes 320 MSC's, the highest number in recent years.

c. Recent decision by CSA to phase time in service from 48 months to 42 months has been delayed because of funding problems.

d. CY80/81 MSC Promotion Plan, which was approved in December 1979, should significantly reduce the shortfall in the grade of major by the end of FY 81.

B. Promotions.

1. Three years ago, one of my major efforts as Chief, was to correct the lack of equity which existed between the 67 and 68 series officers.

2. CY 79/80 AUS/RA selection data should dispel any concerns about differences in selection for promotion between the administrative and technical specialties of the Corps.

3. This next series of VU-graphs show that there is now equity in promotions.

VU-Graph 3 - On --- CY 80 AUS Selection Rates

VU-Graph 3 - Off

VU-Graph 4 - On --- CY 80 RA Selection Rates

VU-Graph 4 - Off

VU-Graph 5 - On --- CY 79 AUS Selection Rates

VU-Graph 5 - Off

VU-Graph 6 - On --- CY 79 RA Selection Rates

VU-Graph 6 - Off

4. The alignment of selection rates was largely affected by modifying the letter of instruction to the board and alternating 67 and 68 series membership on the AUS and RA Boards.

5. The next two VU-graphs portray the AUS selection rates for first time considered and previously considered over the period 1975-1980.

VU-Graph 7 - On --- AUS First Time Considered

VU-Graph 7 - Off

VU-Graph 8 - On --- AUS Previously Considered

VU-Graph 8 - Off

C. Regular Army Structure

1. Promotion to RA major continues to be of significant concern to me as well as to the younger officer.

VU-Graph 9 - On --- MSC RA Structure as of 30 Sep 1980

2. The crux of the problem lies in the definition of net vacancy.

a. Overstrength in RA major of +263 as shown on the VU-graph cannot be absorbed by the net vacancies in the grades of LTC and COL -222.

b. With the next vacancy being less than the overstrength in the grade of major means that the MSC receives an 80 percent selection rate for first time considered as specified in Title 10 as compared with a 90 percent rate for the other AMEDD Corps' and the APL, who do not find themselves in a similar position to ours. This year, we were successful in justifying a 30 percent factor for the previously considered in order to determine the list size. Last year, a similar effort was not successful.

3. In an effort to close the net vacancy gap, a proposal to add 200 RA structure spaces was developed this past February and approved by the DCSPER.

a. Obviously, the addition of 200 spaces did not completely solve the problem but, as you can see from the VU-graph, it did reduce the net vacancy from well over 150 last year to just 36 this year.

VU-Graph 9 - Off

b. Indications are that DOPMA may be passed.

4. Bottom Line - Promotion to RA Major remains competitive for at least one more year; will continue to be competitive until either the net vacancy discrepancy is corrected or DOPMA is signed.

#### D. Civilian Educational Opportunities.

##### 1. Long Term Civilian Training

a. As I announced to field last year, a five year academic program was developed for the Corps. It was my perception that, in prior years, members of the Corps submitted applications for civilian training without knowing which disciplines Uncle Sam has a need to train in.

b. The five year academic program was designed to allow for more effective management of our fully funded and partially funded civilian training starts each year and to keep the Corps informed of the opportunities for advanced civilian education.

c. The following VU-graphs reflect FY 81 doctoral and master starts by discipline. The asterisk indicates disciplines for which applications were not received and for which we had a validated start identified.

VU-Graph 10 - On --- FY 81 Masters Training Starts

VU-Graph 10 - Off

VU-Graph 11 - On --- FY 81 Doctoral Training Starts

d. Evidence suggests that the five year academic program is working, 74 applications were received this year as compared with 42 total applications last year. Anticipate that still more applications will be submitted this year.

(1) Also, we were able to increase the number of starts in our fully funded program from 15 to 22.

(2) 15 officers were offered training under the partially funded program. 20 partially funded spaces were again turned back.

(3) In total, the Medical Service Corps currently has 93 officers in civilian training status.

VU-Graph 11 - Off

##### 2. Military Education and Training

VU-Graph 12 - On --- Military Education and Training

a. Fiscal Year 1980 also proved to be a banner year as far as military education and training is concerned.

b. Need for all 67 and 68 series officers to tend to their military education and training to remain competitive for promotion and selection for Senior Service College.

VU-Graph 12 - Off



E. Psychology Career Field.

1. 68 Strength Data

VU-Graph 13 - On --- 68S Psychologist

a. Eighty-five (85) officers hold the 68 Sierra SSI.

(1) As with the Corps-at-large grade imbalances exist.

(2) Of particular concern is the existence of a critical shortfall of military psychologists.

VU-Graph 13 - Off

b. Shortfall of military psychologists facing the Corps is one of our most serious and challenging problems.

(1) Procurement initiatives were undertaken last year to intensify our efforts to attract and retain qualified psychologists.

(2) Psychology Action Plan established ambitious, long run procurement goals and strategies.

(3) Long run resolution of the military psychology shortfall requires an aggressive volunteer program.

c. Volunteer recruitment program initiatives include:

(1) Increased advertising in professional journals.

(2) Attending professional society meetings and manning AMEDD displays.

(3) Interacting with ROTC detachments and deans of programs approved by the American Psychological Association.

(4) Visiting professional schools and coordinating recruitment efforts with the AMEDD regional counselors.

d. Between 1981-1985, we are planning on approximately 50 psychologists entering the career field from the Clinical Psychology Internship Program and the Health Professions Scholarship Program.

(1) Since this was the last year for HPSP input for other than students of medicine and osteopathy, our short run recruiting efforts will rely heavily upon direct commissioning, ROTC educational delays, and the internship program.

VU-Graph 13 - On --- 68S Psychologist

e. Based on our gains and losses model, the projected level of psychologists through FY 85 is displayed. Our main problem will be stabilizing input beyond FY 85 and we are looking to tri-service initiatives to sustain our strength.

VU-Graph 13 - Off

## 2. 68T Strength Data

a. The next VU-graph shows the strength data for our military research psychologists.

VU-Graph 14 - On --- 68T Psychologist

(1) Shortfall of seven (7) research psychologists.

(2) Grade imbalances exist.

(a) Resolution of the shortfall will require an aggressive recruiting program.

(b) Active recruiting for research psychologists will be intensified by the AMEDD counselor network.

(c) Considering our projected losses and procurement objectives for the next three years, the shortfall in research psychologists will be gradually rectified.

VU-Graph 14 - Off

## 3. Research Psychologists

a. I would be remiss if I failed to recognize the two research psychologists who comprise the professional staff of the US Army Medical Research Unit Europe - Major Larry Ingraham and Major Rick Manning.

b. The research conducted by these two officers on issues ranging from attrition to drug abuse to prevention of combat psychiatric breakdown and, most recently, improved unit cohesion in USAREAR has had extraordinary Army-wide impact.

c. The Chief of Staff has recently established a special action group to work on improving cohesion in Army units. The research conducted by Larry Ingraham and Rick Manning form the cornerstone for the action groups planning for reorganizing the Army.

d. The work conducted by these two officers is just an example of the magnificent effort being put forth by research psychologists of the Corps worldwide.

#### 4. Promotions for Psychology Career Field

a. The career field fared well in terms of 1980 AUS selection rates, particularly in the grades of major and lieutenant colonel.  
VU-Graph 15 - On --- 68S/68T AUS Selection DATA

VU-Graph 15 - Off

(1) Our psychology officers did extremely well in the RA selections this past year.

VU-Graph 16 - On --- 68S/68T RA Selection Data

(2) Need 68 series as well as 67 series officers to tend to their military education and training to remain competitive for promotion at 05 and 06 levels.

VU-Graph 16 - Off

#### 5. Postgraduate Fellowship.

a. The Surgeon General's policy council approved the establishment of a fellowship in neuropsychology.

b. The fellowship in neuropsychology will be one year in length and conducted at Madigan Army Medical Center.

(1) The program will be under the administrative control of the Department of Psychiatry and professional oversight will be provided by the Departments of Psychology at the University of Arizona and Pacific Lutheran University.

(2) The fellowship will be available on a competitive basis to one psychologist a year.

c. The fellowship in community mental health is currently being developed.

(1) Fellowship will be on a competitive basis to either one social worker, one psychologist or one psychiatrist each year.

(2) The program will be one year in duration and the training site will be at William Beaumont Army Medical Center.

(3) Fifteen credit hours of tutorial courses will be taken with selected professors at Texas Tech University. The proposed workshops, applied field experience, and tutorials will be individually planned by the Fellow and his advisor. The community mental health fellowship, if approved, will begin in September 1981.

d. I am personally excited about these fellowships. In my opinion, postgraduate training for the Corps is long overdue and these proposed fellowships are a good beginning.

#### CONCLUSION

The management of the Corps is sporty, taut, frustrating, contentious and aggravating. These feelings are quickly dispelled when, as your Chief, I can stand before such a large gathering of fellow officers and report that the Corps is healthy and changing with the times to meet the needs of its members.

One of the reasons I can stand before you this morning and express my satisfaction, not contentment, with the Corps is largely the result of your individual day-to-day contributions and performance of duty.

Lastly, you may not know that Colonel Dan Cavanaugh, Chief of the Medical Allied Sciences section of the Corps, will retire in December. In view of his retirement, it was necessary to convene a board to select a new assistant chief. I am pleased to announce that the nomination of COL Ed Maillet has been approved by The Surgeon General to replace Colonel Cavanaugh. Colonel Maillet is a consummate professional and highly respected officer. His leadership and sound counsel will be of immeasurable value in the management of the Medical Allied Sciences section as well as the overall management of the Corps.

1980 AMEDD PSYCHOLOGY SYMPOSIUM  
WALTER REED ARMY MEDICAL CENTER

- VU-Graph 1 --- MSC Strength By Section
- VU-Graph 2 --- MSC Active Duty Strength
- VU-Graph 3 --- CY 80 AUS Selection Rates
- VU-Graph 4 --- CY 80 RA Selection Rates
- VU-Graph 5 --- CY 79 AUS Selection Rates
- VU-Graph 6 --- CY 79 RA Selection Rates
- VU-Graph 7 --- AUS First Time Considered
- VU-Graph 8 --- AUS Previously Considered
- VU-Graph 9 --- MSC RA Structure as of 30 Sep 80
- VU-Graph 10 -- FY 81 Masters Training Starts
- VU-Graph 11 -- FY 81 Doctoral Training Start
- VU-Graph 12 -- Military Education and Training
- VU-Graph 13 -- 68S Psychologist
- VU-Graph 14 -- 68T Psychologist
- VU-Graph 15 -- 68S/68T AUS Selection Data
- VU-Graph 16 -- 68S/68T RA Selection Data

VU-GRAPH 1

MEDICAL SERVICE CORPS STRENGTH  
AS OF 30 SEP 1980

|                                  | <u>Authorized Strength</u> | <u>Actual Strength</u> |
|----------------------------------|----------------------------|------------------------|
| Chief                            | 1                          | 1                      |
| Pharmacy, Supply & Admin Section | 3223                       | 3311                   |
| Medical Allied Sciences Section  | 831                        | 816                    |
| Optometry Section                | 224                        | 181                    |
| Sanitary Engineering Section     | 389                        | 356                    |
| Special Assignments*             | 150                        | 165                    |
|                                  | <u>4818</u>                | <u>4830</u>            |

\* Medical students charged to MSC

VU-GRAPH 2

MSC ACTIVE DUTY STRENGTH

|                     | <u>Auth<br/>FY 80</u> | <u>Actual<br/>30 Sep 80</u> | <u>Difference</u> |
|---------------------|-----------------------|-----------------------------|-------------------|
| Generals            | 1                     | 1                           |                   |
| Colonels            | 180                   | 180                         |                   |
| Lieutenant Colonels | 562                   | 584                         | + 22              |
| Majors              | 976                   | 902                         | - 74              |
| Captains            | 2071                  | 1802                        | - 269             |
| Lieutenants         | 1028*                 | 1361**                      | + 333             |
|                     | <u>4818</u>           | <u>4830</u>                 | <u>+ 12</u>       |
| Warrant-Officers    | 77                    | 85                          | + 8               |
| TOTAL               |                       |                             |                   |

95

\* Includes 173 authorized spaces for USUHS

\*\* Includes 149 medical students charged to MSC

# VU-GRAPH 3

## PROMOTION RATES - 1980 BOARDS AUS

OVERALL                      67(SS1)                      68(SS1)

### CAPTAIN

First Time Considered  
Previously Considered  
Total Primary Zone

99.5  
70.1  
98.1

\*

\*

### MAJOR

First Time Considered  
Previously Considered  
Total Primary Zone

69.1  
50.7  
64.8

\*

\*

### LIEUTENANT COLONEL

First Time Considered  
Previously Considered  
Total Primary Zone

71.4  
15.6  
53.5

75.2  
14.0  
54.4

65.7  
18.5  
52.1

### COLONEL

First Time Considered  
Previously Considered  
Total Primary Zone

43.4  
13.2  
27.2

48.5  
15.7  
31.5

27.2  
6.6  
15.4

\* Error in MILPERCEN Data Base



VU-GRAPH 4

PROMOTION RATES - 1980 BOARDS

RA

68(SS1)

67(SS1)

OVERALL

CAPTAIN

First Time Considered  
Previously Considered  
Total Primary Zone

98.5  
33.3  
95.7

\*

MAJOR

First Time Considered  
Previously Considered  
Total Primary Zone

75.2  
50.0  
69.8

74.4  
50.0  
71.1

85

LIEUTENANT COLONEL

First-Time Considered  
Previously Considered  
Total Primary Zone

69.9  
78.6  
71.3

76.4  
83.3  
77.7

54.6  
50.0  
54.2

COLONEL

First Time Considered  
Previously Considered  
Total Primary Zone

45.7  
27.3  
37.9

36.1  
33.3  
35.7

\* Error in MILPERCEN Data Base

VU-GRAPH 5

PROMOTION RATES - 1979 BOARDS  
AUS

68(SS1)

67(SS1)

OVERALL

MAJOR

First Time Considered  
Previously Considered  
Total Primary Zone

72.7  
36.5  
65.9

72.7  
23.9  
61.5

72.7  
70.6  
72.4

LIEUTENANT COLONEL

First Time Considered  
Previously Considered  
Total Primary Zone

71.9  
18.6  
56.1

73.1  
24.4  
59.3

68.6  
5.7  
47.2

65

COLONEL

First Time Considered  
Previously Considered  
Total Primary Zone

45.5  
14.5  
32.6

49.1  
10.0  
32.9

35.0  
26.7  
31.4

PROMOTION RATES - 1979 BOARDS

**First Time Considered  
Previously Considered  
Total Primary Zone**

[illegible]

**First-Time Considered  
Previously Considered  
Total Primary Zone**

68(551)

67(SSI)

**OVERALL**

73.9  
50.0  
68.9

72.0  
31.9  
64.8

72.4  
35.7  
65.5

81.8  
100.0  
83.3

70.0  
46.2  
66.3

71.6  
50.0  
68.4

44.8  
0.0  
25.0

64.3  
12.5  
50.0

60.8  
8.7  
44.6

**MSC TEMPORARY PROMOTION SELECTION RATES**  
**(FIRST TIME CONSIDERED)**

19

VU-GRAPH 8

MSC TEMPORARY PROMOTION SELECTION RATES  
(PREVIOUSLY CONSIDERED)

|     | <u>1975</u> | <u>1976</u> | <u>1977</u> | <u>1978</u> | <u>1979</u> | <u>1980</u> |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|
| COL | 14.9        | 8.8         | 5.1         | 5.1         | 14.6        | 13.2        |
| LTC | 9.8         | 16.7        | 39.1        | 23.5        | 18.6        | 15.6        |
| MAJ | 24.2        | 29.0        | 23.6        | 29.8        | 36.5        | 50.7        |
| CPT | 53.8        | 50.0        | 36.4        | 40.0        | 70.0        | 70.0        |

VU-GRAPH 9

RA GRADE STRUCTURE AS LIMITED BY SECTION 3211  
MEDICAL SERVICE CORPS COMPARED TO ACTUAL STRENGTH  
AS OF 30 SEP 1980

|       | <u>RA STRENGTH<br/>LIMITATION</u> | <u>ACTUAL<br/>STRENGTH</u> | <u>DEVIATION</u> |
|-------|-----------------------------------|----------------------------|------------------|
| 0-7   | 1                                 | 1                          |                  |
| 0-6   | 168                               | 72                         | - 96             |
| 0-5   | 294                               | 168                        | - 126            |
| 0-4   | 399                               | 662                        | + 263            |
| 0-3   | 483                               | 610                        | + 127            |
| 0-2   | 378                               | 234                        | - 144            |
| 0-1   | 378                               | 211                        | - 167            |
| TOTAL | 2101                              | 1958*                      | - 143            |

\* Includes 6 carriers

**FY 81 TRAINING STARTS**  
**MASTERS**

## LOGISTICS MANAGEMENT

## MEDICAL TECHNOLOGY

# DRSA

## PHARMACY

**PHYSIOLOGICAL OPTICS\***

## STRATEGIC INTELLIGENCE

**HEALTH SERVICES ADMIN**

\* No applications received for validated starts in FY 80

**VU-GRAPH 11**

**FY 81 TRAINING STARTS**  
**DOCTORATE**

**AUDIOLOGY**

**BIOCHEMISTRY**

**CLINICAL LAB/MEDICAL TECHNOLOGY**

**COMPUTER SCIENCE/INFO SYSTEMS**

**EDUCATION**

**ENTOMOLOGY**

**ENVIRONMENTAL HYGIENE/SCIENCE**

**HEALTH FACILITY ARCHITECTURAL ENGINEERING**

**HEALTH SERVICES ADMINISTRATION**

**IMMUNOLOGY**

**MICROBIOLOGY**

**PARASITOLOGY\***

**PHARMACOLOGY**

**PHYSIOLOGICAL OPTICS\***

**RADIOLOGICAL HYGIENE**

**SANITARY ENGINEERING\***

**SOCIAL WORK**

**59**

**\* No applications received for validated starts in FY 80**



VU-GRAPH 12

MILITARY EDUCATION AND TRAINING  
FY 80

MILITARY PROFESSIONAL DEVELOPMENT COURSES,  
INSERVICE LONG COURSES,  
COOPERATIVE DEGREE PROGRAM

173

ARMY WAR COLLEGE

5

ARMY WAR COLLEGE CORRESPONDING STUDIES PROGRAM

4

INDUSTRIAL COLLEGE OF THE ARMED FORCES

4

COMMAND AND GENERAL STAFF COLLEGE

14

NONRESIDENT COMMAND AND GENERAL STAFF COLLEGE PROGRAMS

402

VU-CAPH 13

68S  
PSYCHOLOGIST

|                    | AUTH<br>FY 81 | ACTUAL<br>30 SEP 80 |
|--------------------|---------------|---------------------|
| COLONEL            | 1             | 2                   |
| LIEUTENANT COLONEL | 7             | 6                   |
| MAJOR              | 18            | 25                  |
| CAPTAIN            | 75            | 52*                 |
| LIEUTENANT         | 0             | 0*                  |
|                    | <hr/> 101     | <hr/> 85*           |

49

\* Excludes 68U (19)

|                     |                  |                  |                  |                  |                   |
|---------------------|------------------|------------------|------------------|------------------|-------------------|
| 68S Projected Level | FY81<br><hr/> 88 | FY82<br><hr/> 91 | FY83<br><hr/> 94 | FY84<br><hr/> 97 | FY85<br><hr/> 100 |
|---------------------|------------------|------------------|------------------|------------------|-------------------|

VU-GRAPH 14

68T  
PSYCHOLOGIST

|                    | AUTH<br>FY 81 | ACTUAL<br>30 SEP 80 |
|--------------------|---------------|---------------------|
| COLONEL            | 2             | 0                   |
| LIEUTENANT COLONEL | 7             | 2                   |
| MAJOR              | 18            | 13                  |
| CAPTAIN            | 20            | 25                  |
| LIEUTENANT         | 0             | 0                   |
|                    | —             | —                   |
|                    | 47            | 40                  |

89

|                     |            |            |            |            |            |
|---------------------|------------|------------|------------|------------|------------|
| 68T Projected Level | FY81<br>40 | FY82<br>42 | FY83<br>44 | FY84<br>46 | FY85<br>47 |
|---------------------|------------|------------|------------|------------|------------|

VU-GRAPH 15

68S/68T

AUS SELECTION DATA - 1980

|                               |                              |                 |                   |
|-------------------------------|------------------------------|-----------------|-------------------|
| <u>MAJOR</u>                  | <u>First Time Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|                               | 16                           | 12              | 75.00             |
|                               | <u>Previously Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|                               | 0                            | 0               | 0.00              |
| <u>LIEUTENANT<br/>COLONEL</u> | <u>First Time Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|                               | 6                            | 6               | 100.00            |
|                               | <u>Previously Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|                               | 1                            | 1               | 100.00            |
| <u>COLONEL</u>                | <u>First Time Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|                               | 0                            | 0               | 0.00              |
|                               | <u>Previously Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|                               | 1                            | 0               | 0.00              |

VU-GRAPH 16

68S/68T

RA SELECTION DATA - 1980

|              |                              |                 |                   |
|--------------|------------------------------|-----------------|-------------------|
| <u>MAJOR</u> | <u>First Time Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|              | 2                            | 2               | 100.00            |

|  |                              |                 |                   |
|--|------------------------------|-----------------|-------------------|
|  | <u>Previously Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|  | 1                            | 1               | 100.00            |

LIEUTENANT  
COLONEL

|  |                              |                 |                   |
|--|------------------------------|-----------------|-------------------|
|  | <u>First Time Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|  | 1                            | 1               | 100.00            |

|  |                              |                 |                   |
|--|------------------------------|-----------------|-------------------|
|  | <u>Previously Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|  | 0                            | 0               | 0.00              |

COLONEL

|  |                              |                 |                   |
|--|------------------------------|-----------------|-------------------|
|  | <u>First Time Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|  | 0                            | 0               | 0.00              |

|  |                              |                 |                   |
|--|------------------------------|-----------------|-------------------|
|  | <u>Previously Considered</u> | <u>Selected</u> | <u>% Selected</u> |
|  | 0                            | 0               | 0.00              |

## COMPONENT PART NOTICE

THIS PAPER IS A COMPONENT PART OF THE FOLLOWING COMPILATION REPORT:

(TITLE): Proceedings of the AMEDD Psychology Symposium Held at Washington, DC  
on 27-31 October 1980.

(SOURCE): Academy of Health Sciences (Army)  
Fort Sam Houston, TX

TO ORDER THE COMPLETE COMPILATION REPORT USE AD-A147 332.

THE COMPONENT PART IS PROVIDED HERE TO ALLOW USERS ACCESS TO INDIVIDUALLY AUTHORED SECTIONS OF PROCEEDINGS, ANNALS, SYMPOSIA, ETC. HOWEVER, THE COMPONENT SHOULD BE CONSIDERED WITHIN THE CONTEXT OF THE OVERALL COMPILATION REPORT AND NOT AS A STAND-ALONE TECHNICAL REPORT.

THE FOLLOWING COMPONENT PART NUMBERS COMPRISE THE COMPILATION REPORT:

|               |                                                           |
|---------------|-----------------------------------------------------------|
| ADW: P004 072 | TITLE: Challenges Facing AMEDD Psychology in the Eighties |
| P004 073      | The State of the Medical Service Corps                    |
| P004 074      | Current Status, Future Trends, and National Issues        |
|               | Regarding Women in the Military                           |
| P004 075      | Evaluation of Leadership Effectiveness in Mixed           |
|               | Gender Units                                              |
| P004 076      | Stress, Coping, and Support System Among Women Cadets     |
| P004 077      | Psychosocial Factors Affecting the Health and Well-       |
|               | Being of Women in the Army: A Pilot Study                 |
| P004 078      | The Impact of Sole Parenting and Pregnancy on Deployment  |
| P004 079      | Male and Female Performance on Military Related Task:     |
| P004 080      | Some Human Dimensions of Continuous Land Combat: 2000     |
|               | A.D.                                                      |
| P004 081      | Meeting the Chemical Threat Psychiatric Casualties in a   |
|               | Chemical Environment                                      |
| P004 082      | Psychiatric Casualties in Future Conflicts: Estimates,    |
|               | Management and Treatment                                  |
| P004 083      | Credentialing of the Military Psychologist (Licensing     |
|               | and the National Exam)                                    |
| P004 084      | Psychological Assessment of Military Criminal Defendants  |
| P004 085      | Stress Reactions of Military Personnel                    |
| P004 086      | Changing Trends in CMHA Referrals. Assessment of Fort     |
|               | Gordon CMHA Case Files--1977-1979: Preliminary Findings   |
| P004 087      | Contracting for Change with Adult Outpatients             |
| P004 088      | Sense and Nonsense in the Army Drug Prevention Program    |
| P004 089      | The Psychologist Retention Study - Updated                |
| P004 090      | Job Satisfaction between Two Groups of Army Pharmacists   |
| P004 091      | Military Family Counselling                               |
| P004 092      | Primary Prevention and the Military or Where is the Broad |
|               | Street Pump Now?                                          |
| P004 093      | The Psychologist as the Evaluator of Soldiers through     |
|               | Command Consultation: A Model of Family Systems Unit      |
|               | Consultation                                              |

AD-P004 074

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

CURRENT STATUS, FUTURE TRENDS, AND NATIONAL  
ISSUES REGARDING WOMEN IN THE MILITARY

Donald Gray

Director, Equal Opportunity (Military) Office of the  
Assistant Secretary of Defense for Manpower,  
Reserve Affairs, and Logistics  
Washington, D.C.

A few of the graphs and tables are included to give a picture of  
women in the military.

COMBAT EXCLUSION POLICY--ARMY

DCSPER Memorandum--Exclusion Of Women From Combat

Women are authorized to serve in any officer or enlisted specialty, except those listed at the inclosure, at any organization level, and in any unit of the Army, except in infantry, armor, cannon field artillery, combat engineer, and low altitude air defense artillery units of battalion/squadron or smaller size.

1978 COMBAT EXCLUSION POLICY--NAVY  
10 USC 6015

Women may not be assigned to duty in aircraft that are engaged in combat missions nor may they be assigned duty on vessels of the Navy other than hospital ships and transports.

1979 COMBAT EXCLUSION POLICY--NAVY  
10 USC 6015

Women may not be assigned to duty in vessels or aircraft that are engaged in combat missions nor may they be assigned to other than temporary duty on vessels of the Navy except for hospital ships, transports, and vessels of similar classification not expected to be assigned combat missions.

COMBAT EXCLUSION POLICY--AIR FORCE  
10 USC 8549

Female members of the Air Force...may not be assigned to duty in aircraft engaged in combat missions.

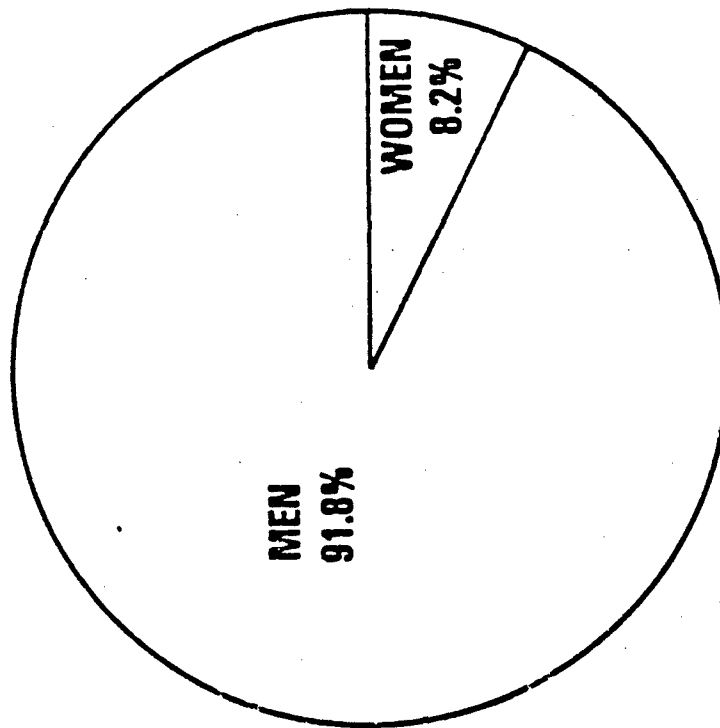
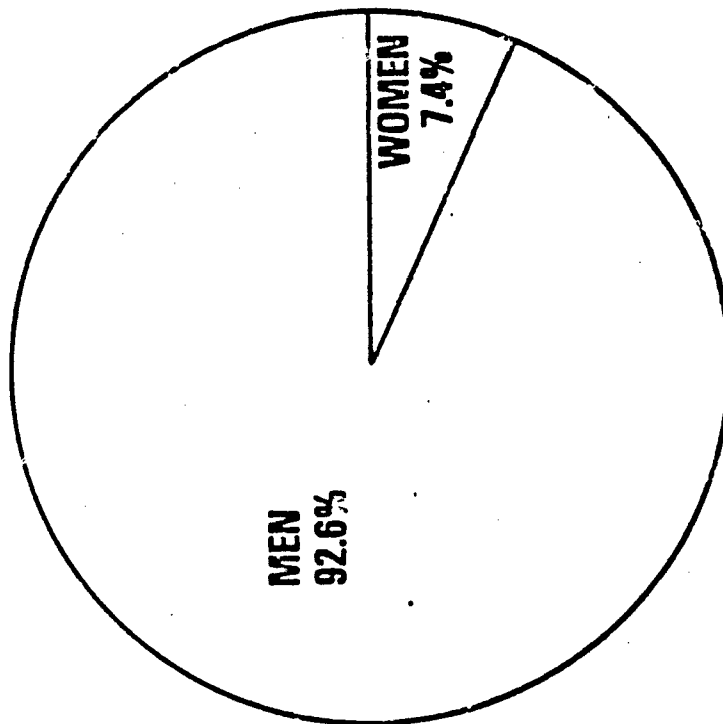


# Military Distribution by Sex

(30 JUN 1980)

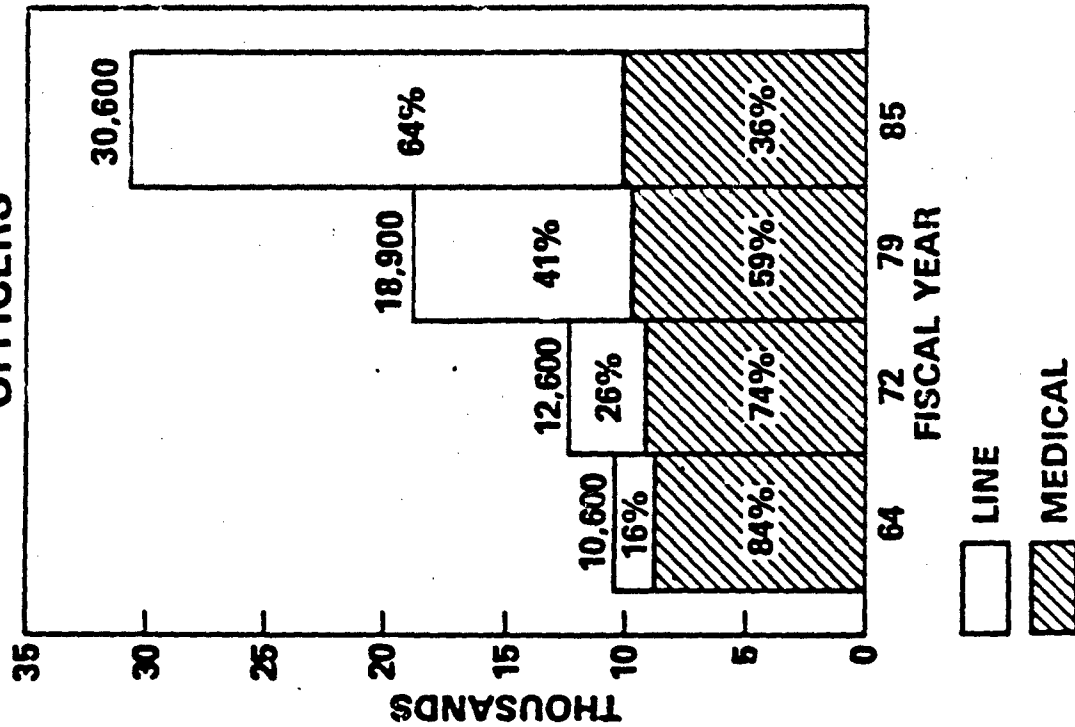
OFFICER  
278,587

ENLISTED  
1,745,459

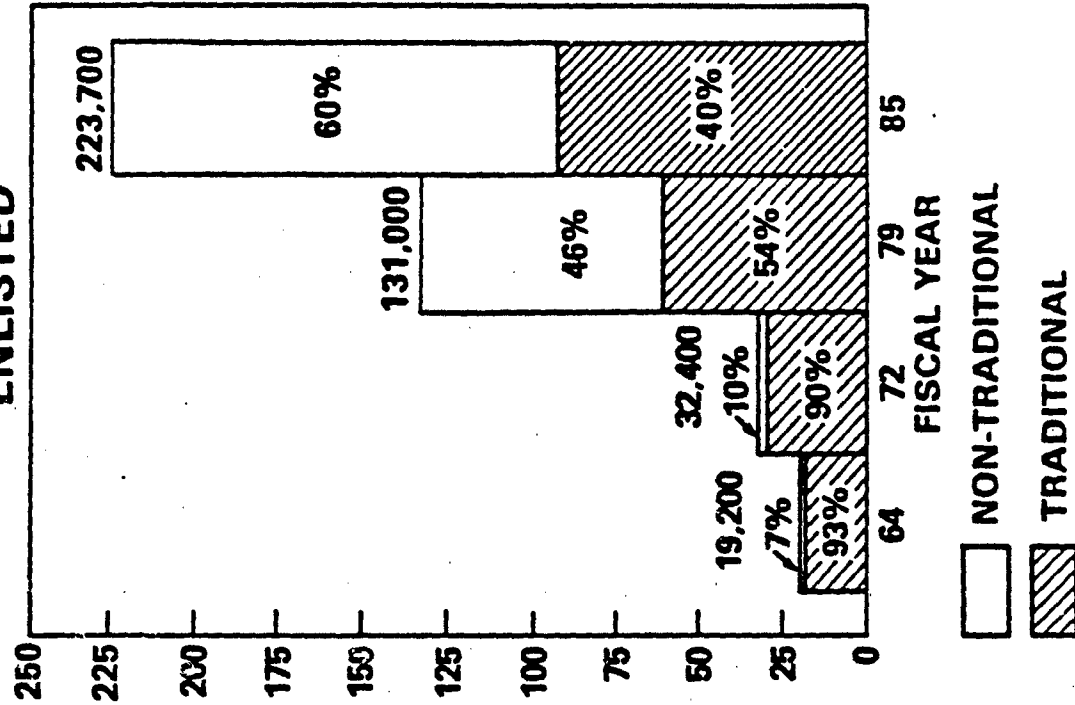


# ACTIVE DUTY WOMEN

## OFFICERS



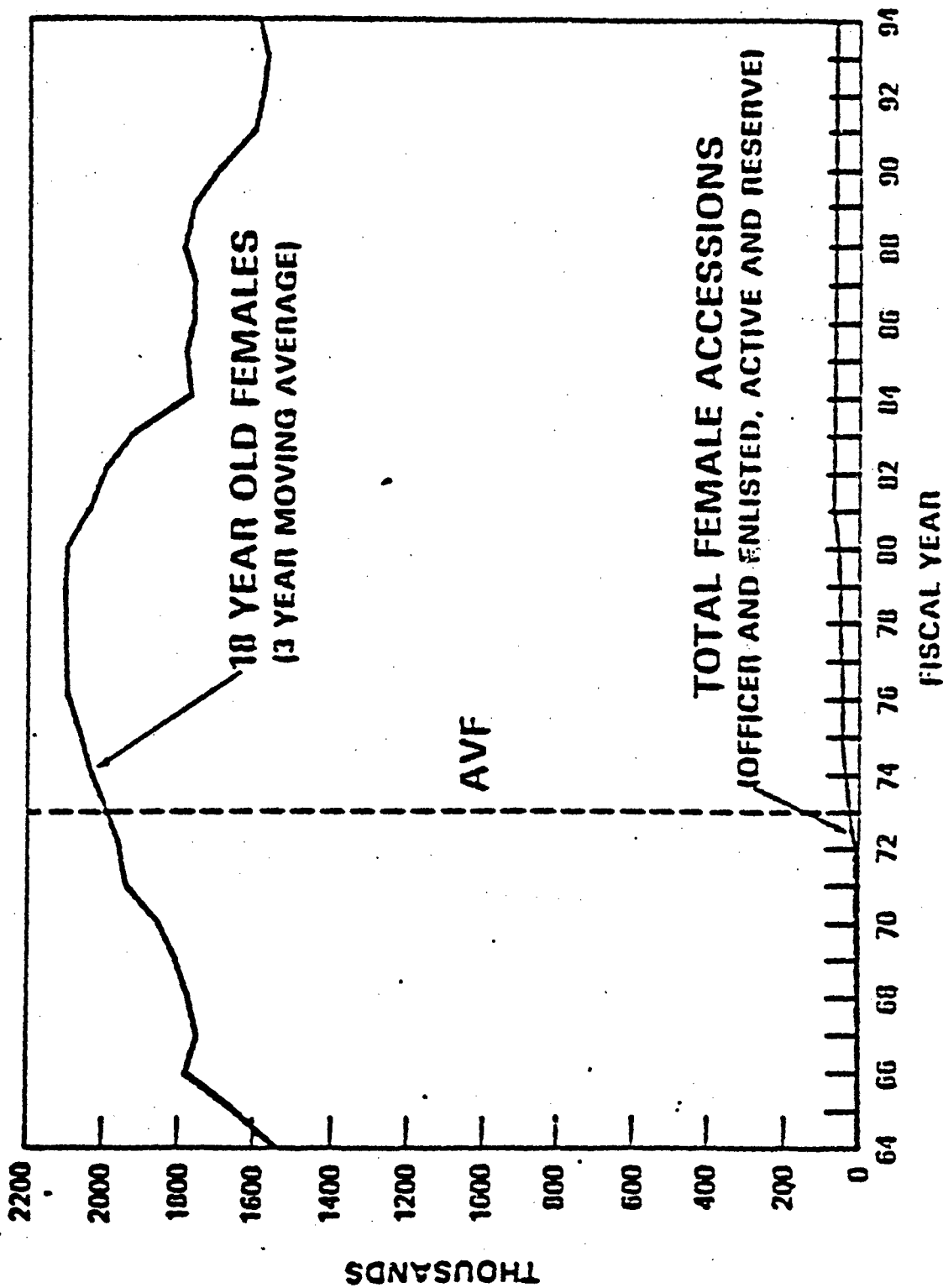
## ENLISTED



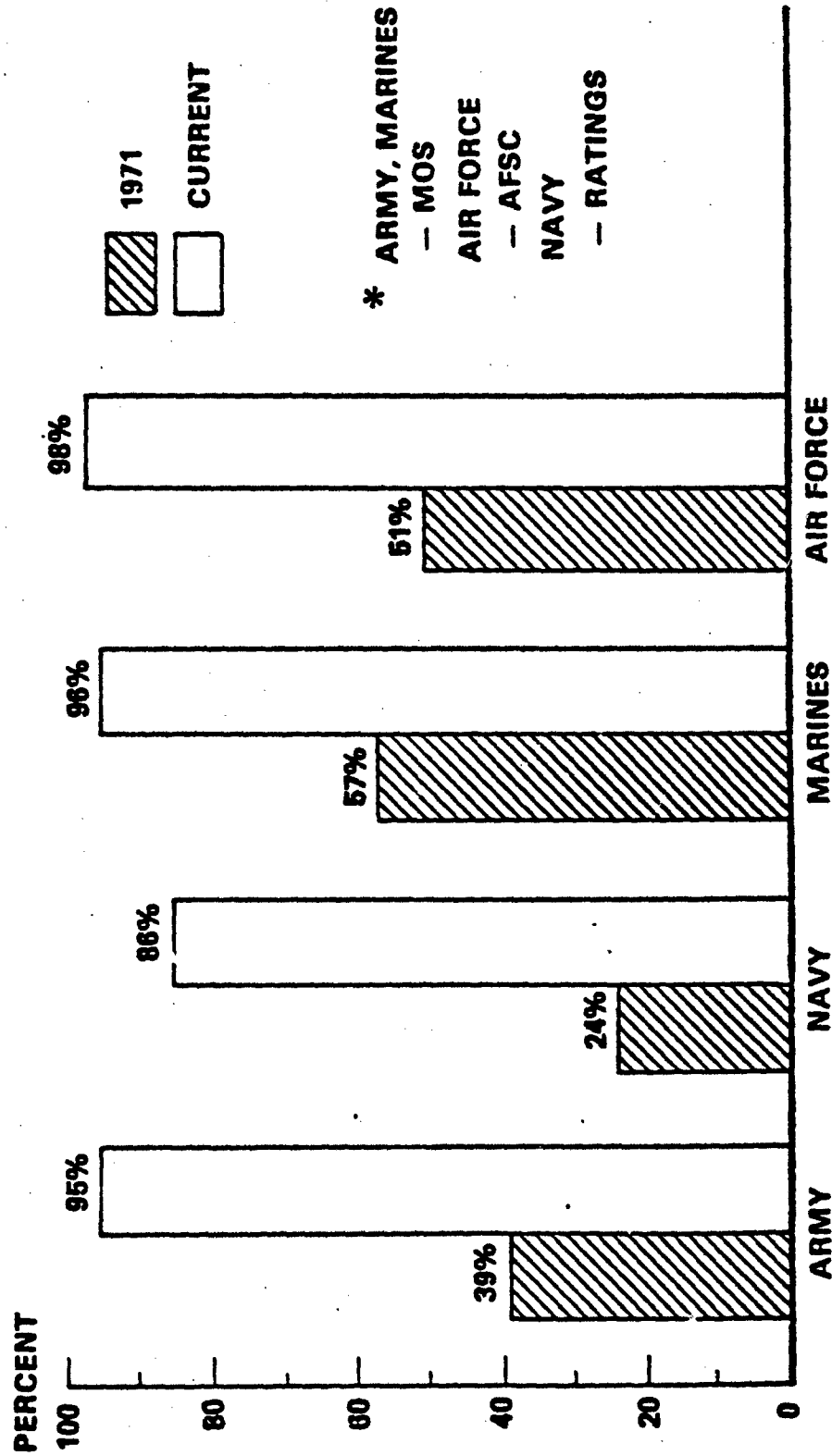
A/O 30 SEP 79

1529.0

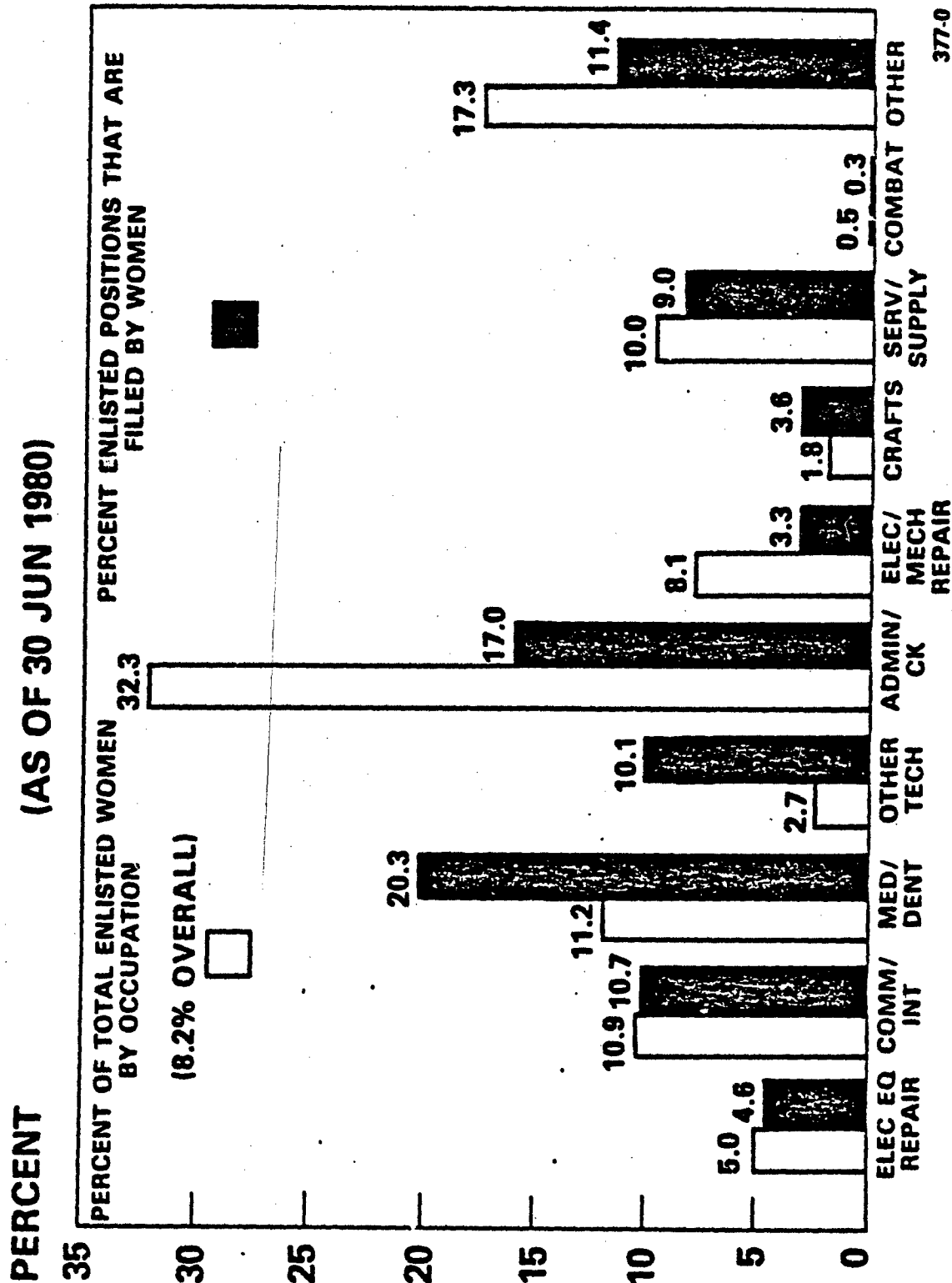
# SUPPLY AND MILITARY RECRUITING OF WOMEN



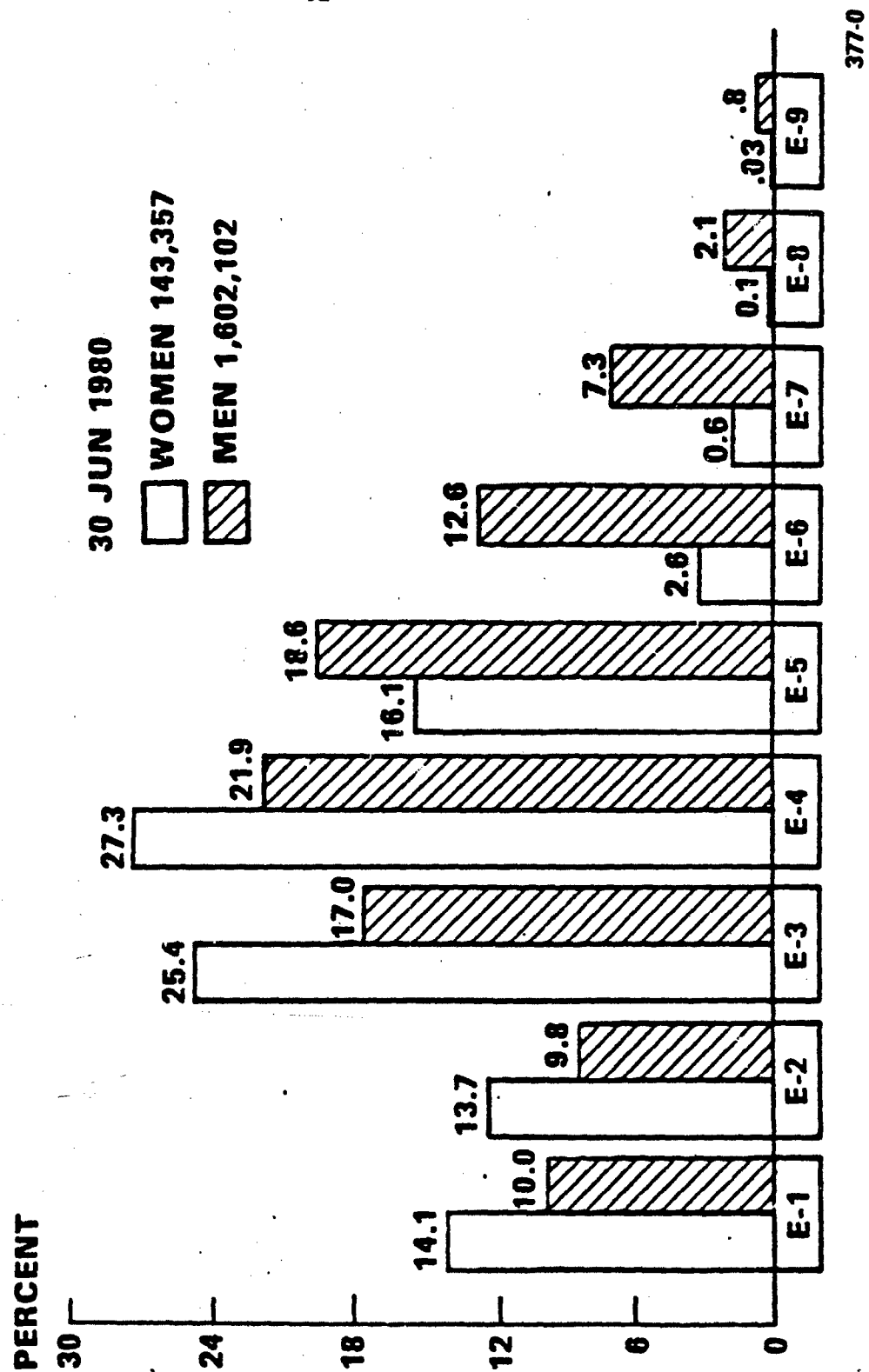
# Occupations \* Open to Enlisted Women



# DISTRIBUTION OF ENLISTED WOMEN BY DOD OCCUPATION GROUP



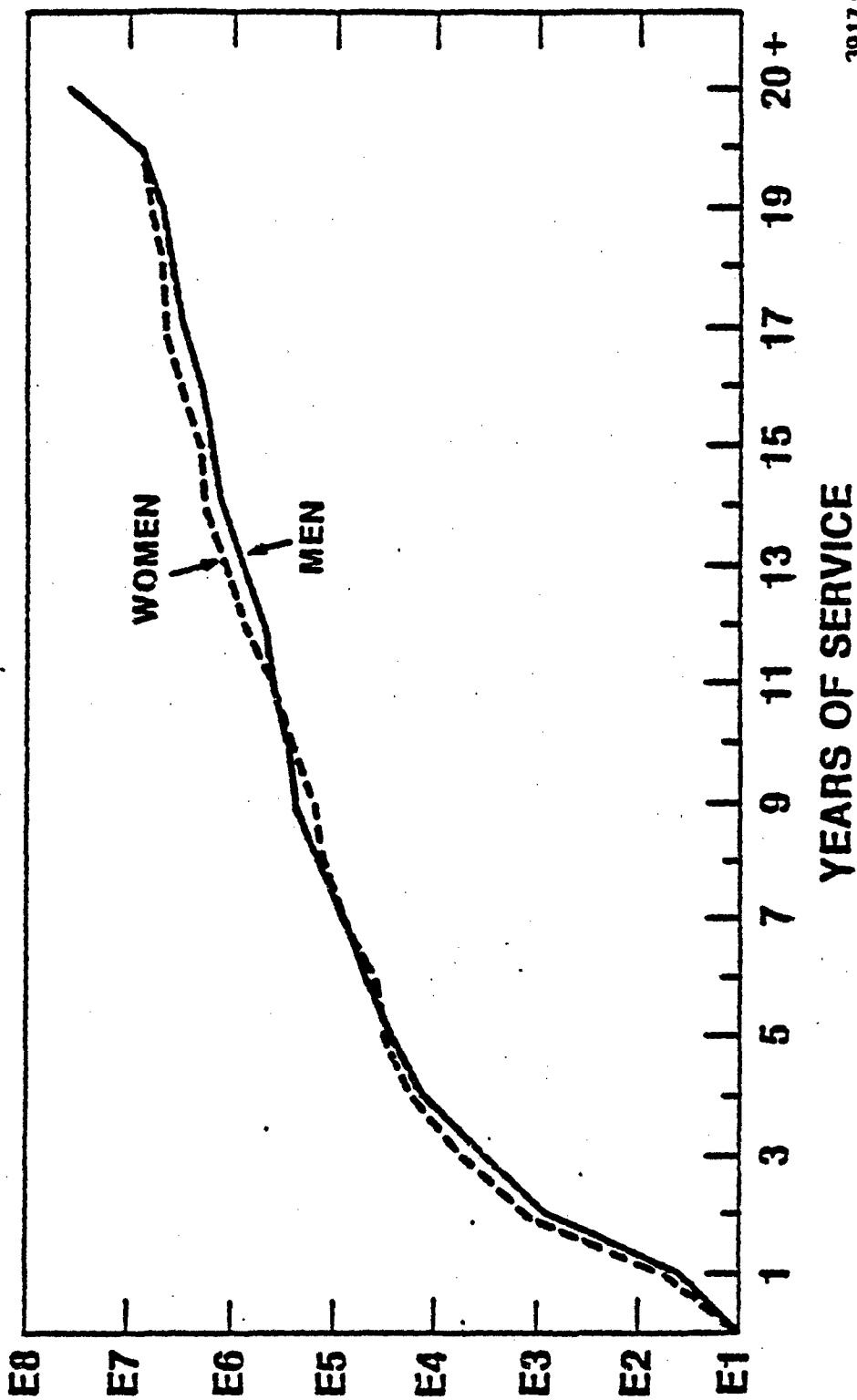
# Enlisted Distribution



# DOD AVERAGE PAY GRADE FOR ACTIVE DUTY ENLISTED MEN AND WOMEN BY YEAR OF SERVICE

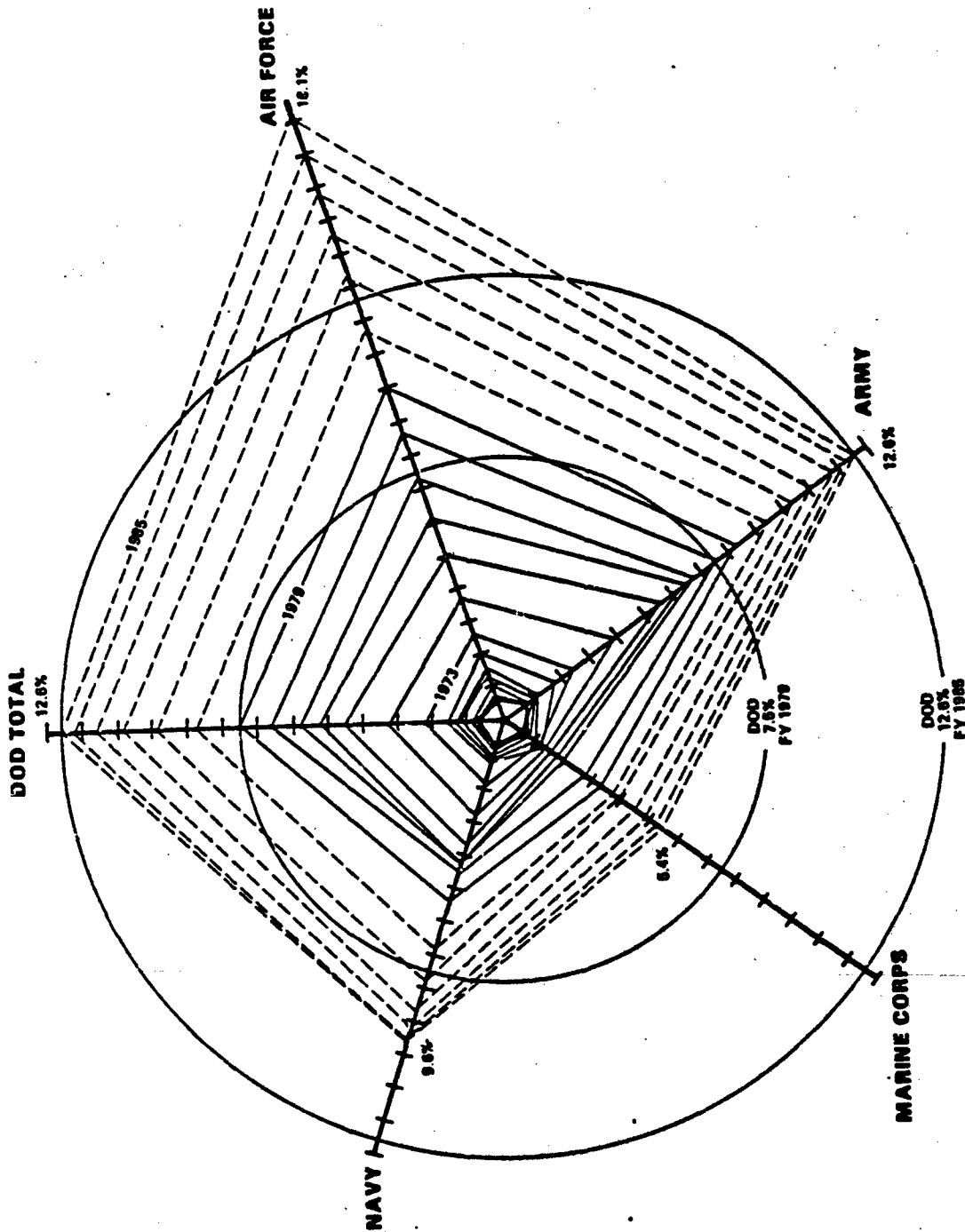
(AS OF END FY 1978)

MEAN PAY GRADE



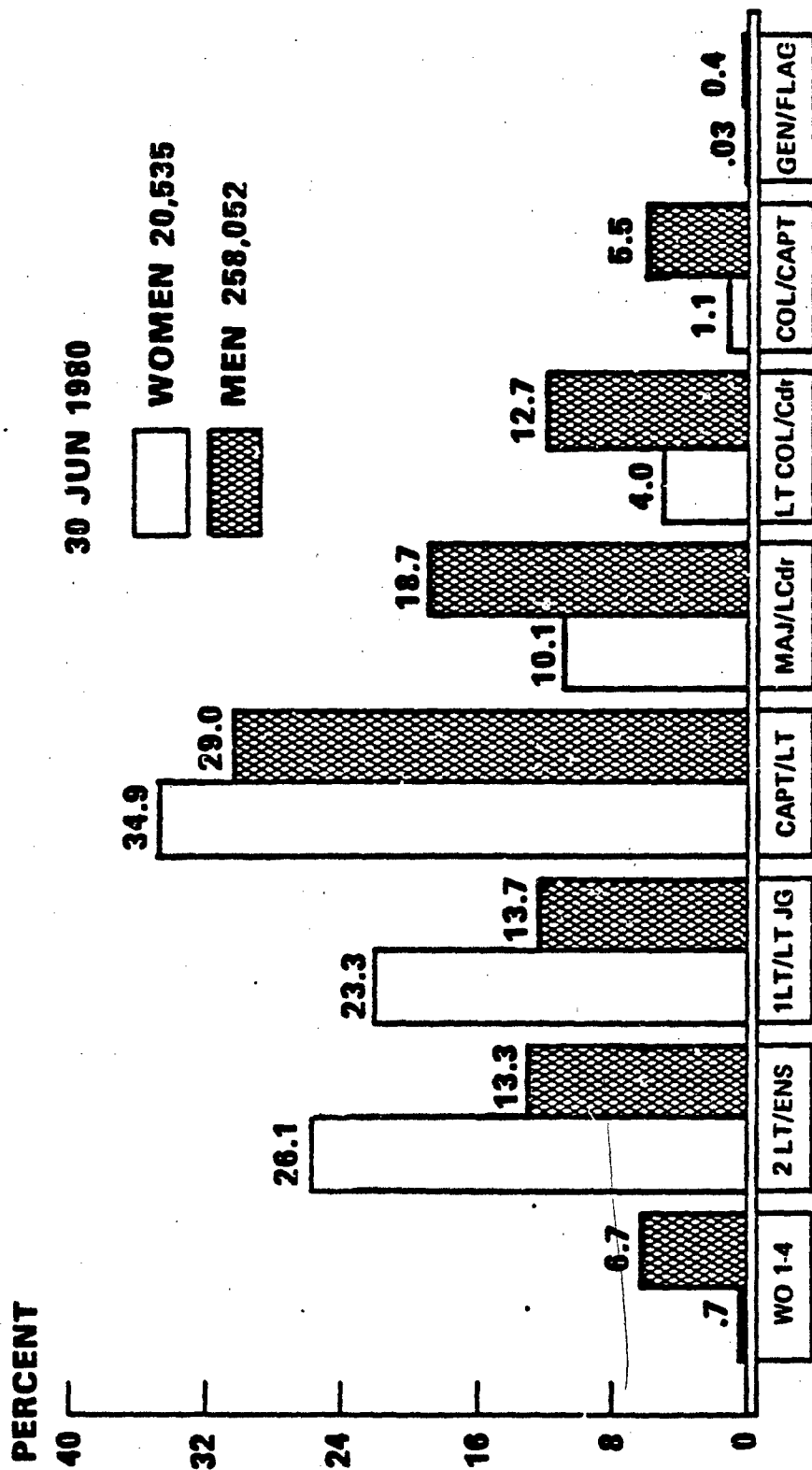
3917.9

# **WOMEN AS A PERCENTAGE OF ACTIVE DUTY OF ENLISTED PERSONNEL 1964-1985**



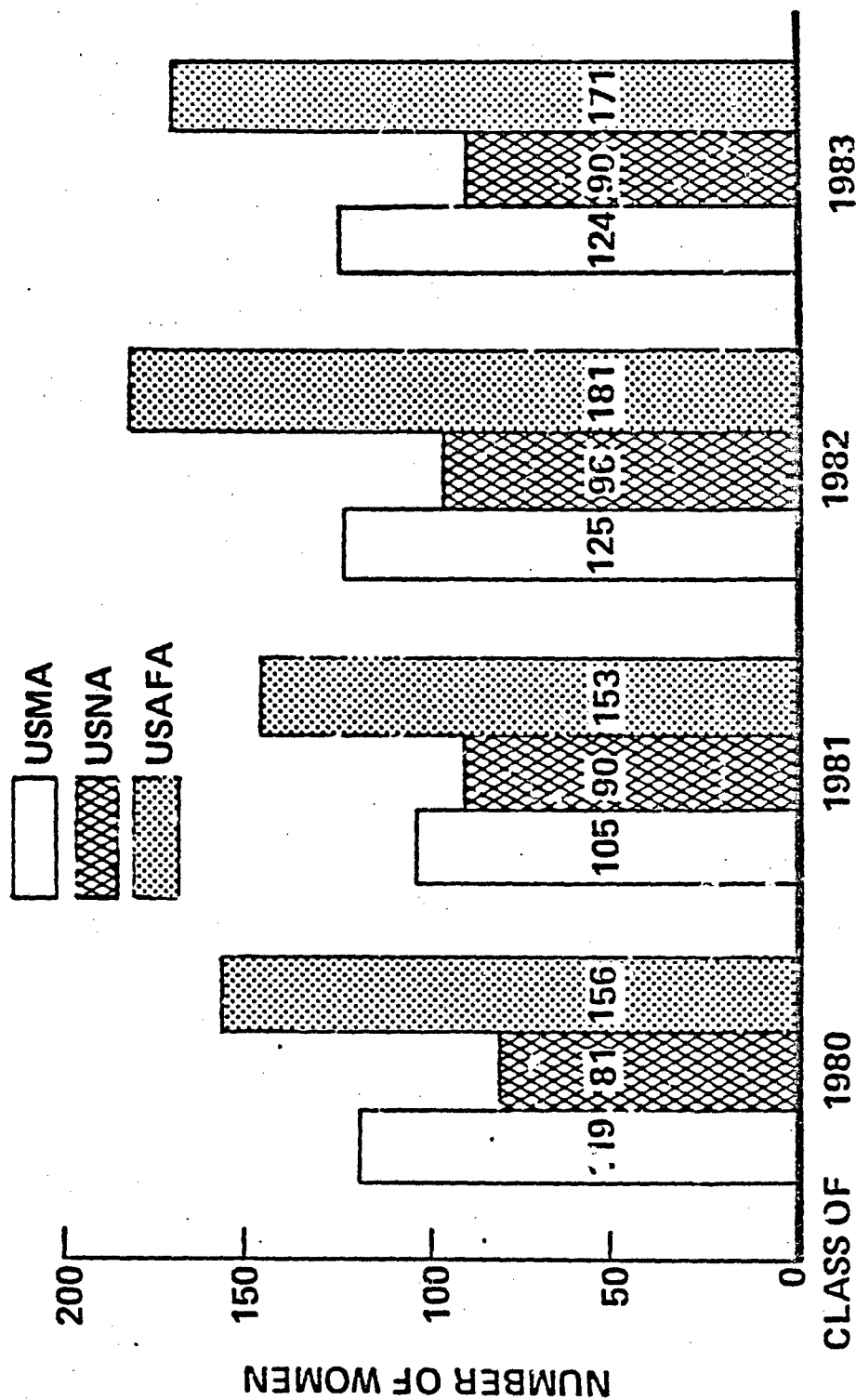


# Officer Distribution

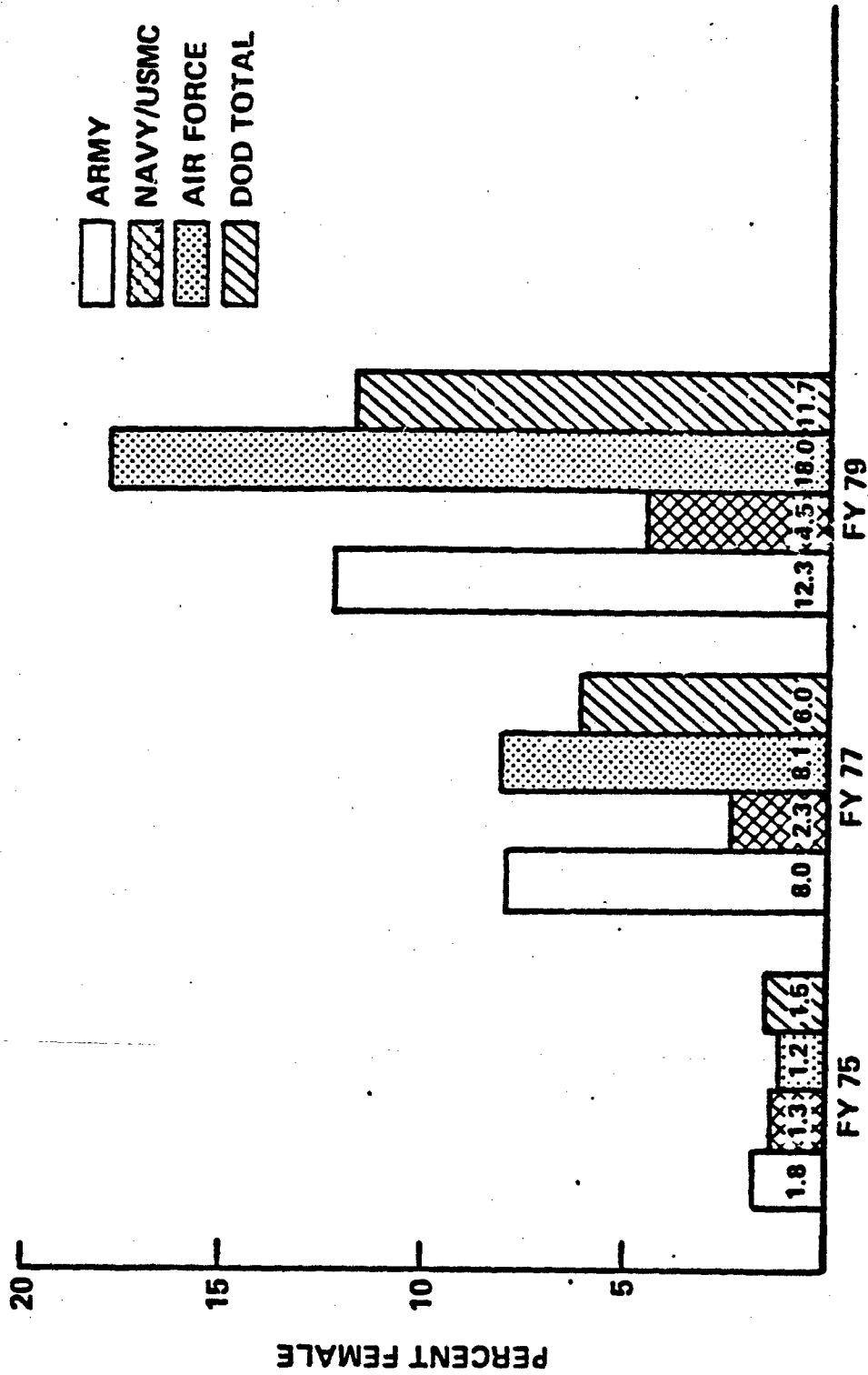


138 9

# **WOMEN AT SERVICE ACADEMIES** **(ADMISSIONS)**

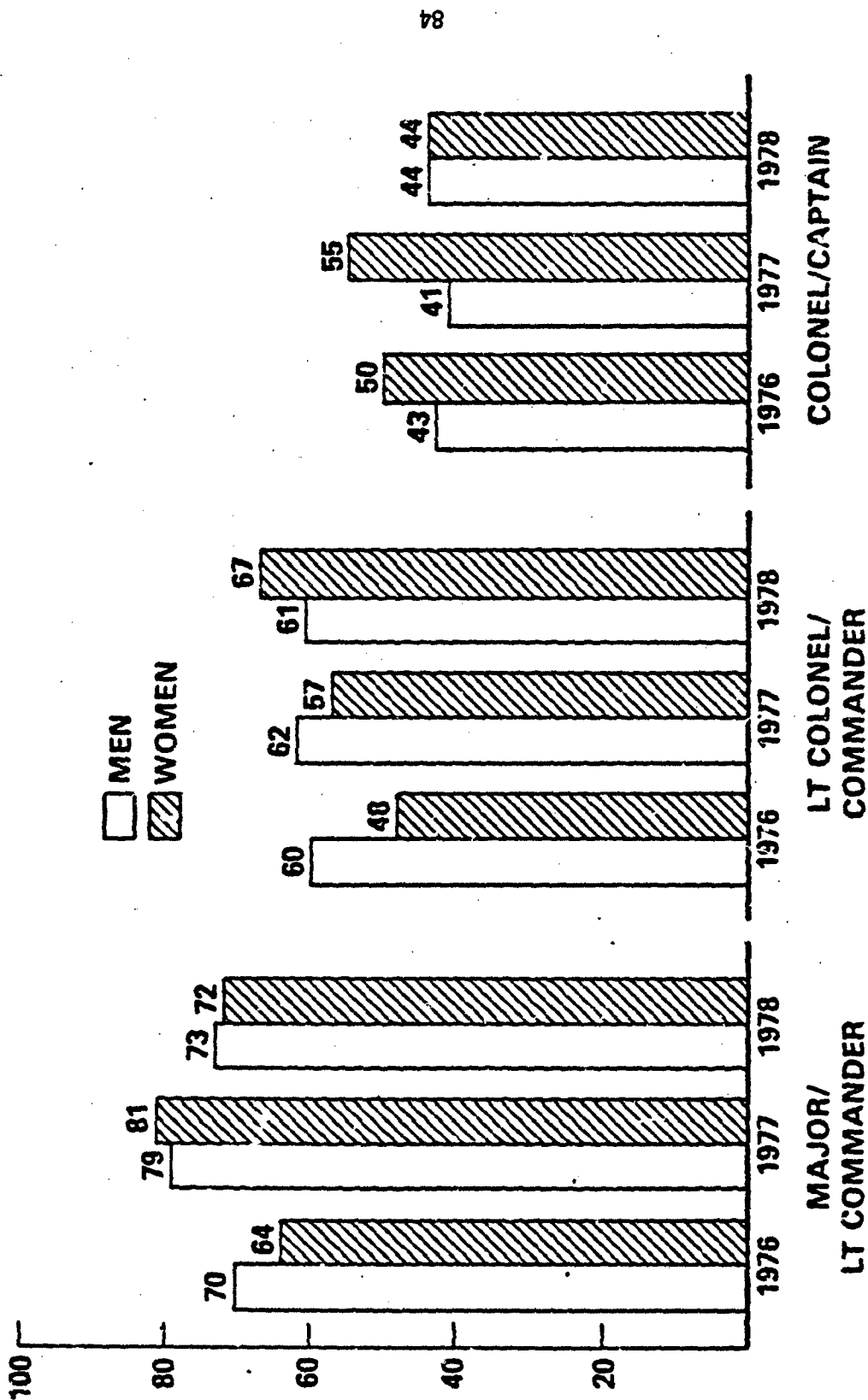


# ROTC SCHOLARSHIPS FOR WOMEN



# DOD PROMOTION RATES\*

SELECTION PERCENTAGE



\*Line Officer/First Time Eligibles

# CHARACTERISTICS OF MALE & FEMALE RECRUITS\*

| <u>CHARACTERISTIC</u>                  | <u>MALE</u> | <u>FEMALE</u> |
|----------------------------------------|-------------|---------------|
| AVERAGE AGE                            | 18.9        | 20.0          |
| PERCENT MARRIED                        | 11.6        | 11.6          |
| PERCENT BLACK                          | 18.5        | 16.1          |
| PERCENT HIGH SCHOOL GRADUATES          | 62.9        | 91.7          |
| AVERAGE TEST SCORE                     | 55.8        | 66.0          |
| PERCENT ON ACTIVE DUTY<br>30 JUNE 1978 | 64          | 70            |

58

\* FY 73-76

2803 8

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(SOURCE): Academy of Health Sciences (Army)  
Fort Sam Houston, TX

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|      |          |        | Consultation                                           |

AD-P004 075

Proceedings of the ANEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

EVALUATION OF LEADERSHIP EFFECTIVENESS  
IN MIXED GENDER UNITS

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ABSTRACT

A field study was conducted in 1979 using 108 Army officers assigned to regular Army units overseas and in CONUS. Also, subjects included 36 female and 72 male cadets who were assigned to summer leadership positions and rated by the Army officers. The results were interpreted in terms of possible rater bias on perceptions of male and female leader performance.

INTRODUCTION

On May 28, 1980, cadets in the Class of 1980 graduated and became second lieutenants in the Regular Army of the United States. That graduation date marked the first time that commencement at West Point had taken place in the month of May. The traditional "June Week" has now been renamed "graduation week" to conform to the changing times. More important than the graduation date change was the fact that for the first time in the history of the Academy, women graduated from West Point. These female officers now assume their place in what was previously stereotyped as a masculine dominated sex role. Women from West Point will be commissioned officers in a variety of non-traditional roles such as field artillery, air defense artillery, engineering, signal, and military police. The purpose of this study was to examine how women versus men would be evaluated in these roles by Army officers in regular Army units.

THEORETICAL ISSUES

Empirical research concerning the sex of leaders in the military has only emerged since the mid 1970's (Savell & Collins, 1975; Segal &

Woelfel, 1976; Rice, Bender, & Vitters, 1977; Adams, 1979). One common finding which these researchers have reported is that in masculine sex-typed tasks, successful performance by female and male leaders is perceived to be caused by different factors. For example, favorable male performance is attributed more to dispositional characteristics such as ability and skill. However, favorable female leader performance is attributed more to situational factors such as luck or support from others.

These findings support the research done by academicians in non-military settings (Schein, 1973; Deaux & Emswiller, 1974; and Rose, 1978). The major implications of such studies for women as leaders in masculine sex-typed tasks lies in the fact that women may be evaluated against commonly held notions of stereotypical masculine attributes.

### PRACTICAL CONCERNS

The concern about how well women can perform in non-traditional leadership roles has been an important issue to senior military officials, and studies have been conducted at West Point to provide more answers to the complex problem (Adams, Priest and Prince, 1979; Rice, Bender and Vitters, 1977; Adams and Prince, 1979). For example, in 1977 a laboratory study was conducted using male and female cadets at West Point. Briefly, the design involved men versus women leaders, conservative versus egalitarian male followers. The results found that male followers with more conservative or traditional attitudes toward women's roles blamed female leaders for poor group performance and more often refused to recognize the female leader's ability on good group performance. Thus, a statistically significant interaction was noted in the laboratory study between the sex of the leader and group performance with followers with traditional attitudes toward women's roles. An important practical concern is whether the attitudinal bias about women's roles found in West Point studies will possibly occur in evaluations of women leaders' performance in actual Army units.

### THE PRESENT STUDY

The data collected for this research is part of a longitudinal research effort to assess how well women are being assimilated into the Corps of Cadets at West Point, and how women are being trained to become effective Army officers after graduation. The primary concern of this study was to determine if the attitudes of Army raters influenced the evaluation of female and male cadet leadership performance.

In addition to the suspicion that rater attitudes might bias male and female evaluations, the authors assumed that the rater's



perceptions of psychological masculinity and femininity might impact on evaluations of cadet performance. That is, if Army officers viewed the leadership positions more stereotypically as masculine sex-typed tasks and these officers had conservative or traditional attitudes toward women's roles, then the researchers would expect to find differential evaluations of male and female evaluations of performance by the Army raters.

## METHOD

Subjects. The subjects consisted of 108 Army officers permanently assigned to regular Army units overseas and in the continental United States. Also, subjects included 36 female and 72 male cadets who were assigned to leadership positions rated by the Army officers. The male and female cadets were participating in a summer Cadet Troop Leader Training (CTLT) program.

Procedure. In May and June 1979, a survey was mailed out to the battalion level of units which would be supporting the Cadet Troop Leader Training program for the summer. The officers in the battalion were asked to complete the survey which was comprised of two scales. The first scale was an Attitude Toward Women in the Military (ARIWS) scale developed by the Army Research Institute (Savell & Collins, 1975). The second scale included in the questionnaire was a measure of psychological masculinity and femininity: The Personal Attributes Questionnaire (PAQ Spence, Helmreich, & Stapp, 1974).

The officers were merely informed that the survey contributes to a longitudinal program to study the training and development of cadets at West Point. Since the survey was given prior to the arrival of the male and female cadets, no conscious attempt was made to sensitize these Army officers to their later follow-up responses to the questionnaire relating to the CTLT program. At the end of the pretest survey of officer attitudes, the responses were mailed back to West Point.

Following this procedure, male and female cadets were assigned to military units for summer training. The instructions the sponsoring unit received were simply to give the cadets troop leading experience as platoon leaders. Following the CTLT training of the cadets, a leadership evaluation was given to the same officers who completed the attitudinal pretest scales.

## RESULTS

The data were analyzed examining the influence of Army rater attitudes, Army rater attributes and cadet leader sex with a measure of overall cadet effectiveness. The summary of the analyses is given in Table 1.

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Insert Table 1 about here

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The results show that there is a statistically significant relationship between Army officer attitudes, Army officer attributes, and ratings of cadet effectiveness. However, the pattern of results given in Table 2 is counter to earlier studies done at West Point.

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Insert Table 2 about here

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Specifically, officers who described themselves with equalitarian (liberal) attitudes towards women's roles tended to rate all cadets lower than did officers with more traditional attitudes toward women.

When we examine more closely the rater self description attribute of masculine and androgenous we see that raters who describe themselves as stereotypically agentic (competitive, assertive, independent, etc.) as a group, tend to rate cadet performance higher than do androgynous officers.

#### DISCUSSION

Three features of this study tend to make the results potentially useful. First, in a broad context the findings of this study add to a growing body of evidence about how attitudinal biases about sex roles affect many perceptions of performance. The fact that officers with more traditional attitudes toward women's roles rated all cadets performance higher than officers with equalitarian attitudes may suggest that the nature, causes, and practical significance of attitudinal bias on sex type roles is only partially understood. Perhaps the officers with more equalitarian scores were less predisposed to rate with any inflated bias and tended to evaluate cadets as realistically as possible. Nevertheless, there were no statistically significant differences in leadership scores due merely to gender of the cadet leader. That is, women were not rated lower than their male peers merely due to their gender.

Second, this study provides a better understanding of the value placed on masculine or agentic traits (competitiveness, assertiveness, instrumentality, etc.) versus psychologically androgynous attributes in the evaluation of military leadership performance. In this study raters with self descriptions of psychologically masculine traits tended to rate cadets' performance higher. Because of the very small sample of raters listed as psychologically feminine

(expressive, communal, empathetic, etc.) no statements can be made about the rating tendency of these officers. It is also useful to note that the rating officers were all members of TO&E units, which have mission-oriented taskings with short deadlines. It is not known to what degree the task-oriented environment may have influenced all officers' perceptions of cadet performance.

Third, this study is useful because it provides the first set of measures from actual military officers outside of West Point on how well the Academy is conducting its training and development of cadets to assume their roles as Army officers. Clearly more research is needed. Yet, the findings of this study reveal that women are not rated lower than their male peers merely due to their gender.

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Table 1  
ANALYSIS OF VARIANCE<sup>a</sup>  
Army Rater Attitudes, Attributes, and  
Cadet Leader Effectiveness

| Source                            | Mean Square | F    | Significance |
|-----------------------------------|-------------|------|--------------|
| Officer Rater Attitude<br>(ARIWS) | 6.67        | 3.38 | .07          |
| Cadet Leader Gender               | 1.08        | 0.55 | .46          |
| Officer Rater Attributes<br>(PAQ) | 5.82        | 2.95 | .04*         |

<sup>a</sup>Hierarchical approach (option 10) invokes the stepdown procedure. The sum of squares associated with the main effect of the first variable is not adjusted for any other variables. The sum of squares for the main effect for the second variable considered is adjusted only for the first variable and so on with each additional variable considered (see Nie, et al., 1970).

\*p  $\leq$  .05

SOURCE: Project Athena

Table 2

Multiple Classification Analysis: Leader Effectiveness  
By Rater Attitude - By Rater Attribute

| Variable and Category | N  | Unadjusted<br>Dev'n. ETA | Adjusted for<br>Independent<br>Variables |
|-----------------------|----|--------------------------|------------------------------------------|
| Rater Attitude        |    |                          |                                          |
| Traditional           | 39 | -0.30                    | -0.29                                    |
| Equalitarian          | 32 | 0.37*                    | 0.35                                     |
|                       |    | 0.22                     | 0.21                                     |
| Rater Attribute       |    |                          |                                          |
| Androgenous           | 23 | 0.03                     | -0.05                                    |
| Masculine             | 38 | -0.35**                  | -0.29                                    |
| Feminine              | 2  | 0.34                     | 0.61                                     |
| Undifferentiated      | 8  | .46                      | .35                                      |
|                       |    | 0.37                     | 0.34                                     |

\* Scaling of questionnaire is such that negative score is interpreted as higher leader effectiveness. Thus, the table summary shows that Army raters with traditional attitudes toward women's roles as a group rated all cadets higher than did Army raters with less traditional attitudes.

\*\*Army raters who describe themselves as stereotypically agentic (assertive, aggressive, competitive, etc.) also as a group rate cadet performance higher than other Army officers.

SOURCE: Project Athena

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AD-P004 076

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STRESS, COPING, AND SUPPORT SYSTEM AMONG WOMEN CADETS

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ABSTRACT

This presentation is a summary of observations of the clinical psychologists at the United States Military Academy Cadet Counseling Center. These observations focus on the process of the integration of women into the Corps of Cadets with emphasis on the stressful environment encountered. A brief discussion of coping strategies is included.

LTC Wilson:

The presentation that Dr. Rhone and I are making is different from the others on the program today. We do not have a research paper to present; rather we're going to relate to you some of the anecdotal information we have gathered at the U.S. Military Academy over the years. The focus of our discussion will be the experiences of the women cadets as we see them and as they relate them to us. As you know, the Academy opened its doors to women in 1976. Our first class has graduated and is presently at basic or on the way to their first assignment. Before we talk about the women cadets, let me tell you a little about my background and how I got involved in women's issues.

During my assignment as a Division Psychologist of the 25th Infantry Division at Schofield Barracks in Hawaii, I was approached by a woman officer who indicated that a group of women officers were gathering together. She indicated that the purpose for this gathering of women officers was to discuss the kinds of issues and experiences they had as junior women officers. The group was comprised of primarily Lieutenants, Captains, with perhaps one Major. The general thrust of our conversation was that these junior women officers were feeling somewhat uncomfortable about many of the feelings and issues that they had to deal with as being part of the military. Their reason for getting together was to see if it was possible for them to sort out and to determine if there was any difference between those issues that they experienced as a junior officer versus experiences that were unique to them as junior women officers. The woman officer who had come to talk to me indicated that they were having some difficulty sorting out these two issues of what any junior officer ought to be willing to put up with the Army versus what might be difficult situations due to the fact that they were women. She asked if I was willing to



facilitate a discussion group of these women officers which would be conducted in the evening, after duty hours, and which would occur once a week.

We did begin these sessions and attempted to deal with some of the issues, primarily allowing the women to express their opinions and concerns. We attempted to try to deal with the specific feelings that they were having and tried to identify any feelings they might have unique to women. This seemed to be a very awkward and cumbersome process. A number of the women were dissatisfied as I found out later, that there had not been an agreement among the whole group of women that they would bring in an outside facilitator. That was a problem early on in the group discussion. An agenda was established by these women and it is included in the following table (Include Table 1).

A number of the women who participated in this group expressed a belief that it had been useful and constructive. They believed they were more able to clearly sort out some of the issues and able to identify ways of handling situations as they came up. It occurred to me that clearly some assertiveness training was called for in some of the situations described by the women. Some of the women who participated in the group appeared to have left dissatisfied. They were not comfortable with an approach that called for an elicitation of their feelings in dealing with situations or people. They seemed to want a cut and dry approach with specific rules that apply to all situations. I believe the different styles and approaches to situations became a fairly divisive element in the group and eventually the group died a natural death. There was an indication that most of these women enjoyed getting together socially just to provide the opportunity for gaining support from each other. Many did not want to stop and break down a number of the elements that were involved in their day to day experiences. They actually wanted to use a group of women to get away from those kinds of experiences.

This experience indicated to me that the need and desire for support from others was critical and essential. There seemed to be indicators and concerns that this need for support identified them less adequate than their peers. There was high motivation to be good and effective officers but fear of appearing unknowledgeable.

When I arrived at West Point in May 1978, it appeared to me that many of these dynamics were present in both the women officers and women cadets. I think the best description I could use is that the women looked bruised. They appeared to know that things were not right but were unable to sort out how to make their situation better. They too appeared reluctant to ask for help. There are many stressful situations the women must cope with: relatively small numbers, physical training requirements, and a major issue of weight to name a few. Now my colleague, Dr. Rhone, will discuss some of her observations of the women cadets and officers at West Point.

Dr. Rhone:

There are, as LTC Wilson indicated, a number of sources of stress among all cadets. From the rigorous Beast Barracks where civilians are turned into soldiers in literally one day to the demands of the fourth class system, to demands for cadet's time from many different places. There may, in fact, be some additional sources of stress placed on women cadets.

The first readily identifiable area is from being in small numbers and still being somewhat of a novelty. There is definitely a "fishbowl" environment in existence at West Point.

Another commonly identified source of stress is from being singled out to present "the woman's viewpoint." This reportedly occurs in academic classes, company meetings, etc. While it is recognized that men speak for themselves, it often appears that a woman cadet speaks for the women.

CFT - Camp Buckner occurs the second summer for cadets, between their freshman and sophomore years. Camp Buckner is a physically rigorous, demanding time where it appears the quality of a cadet may be based on ability to perform adequately in morning runs and to successfully achieve all the combat arms training. Women report stresses at Buckner due to the physical layout. Originally all the women (in the class of 80) were billeted together in two barracks away from the men in the eight companies to which they were assigned. The women indicated they often did not receive required information and felt very much apart from their male classmates but did form bonds among themselves.

The following summer physical modifications were made which allowed the women in each platoon to live with that platoon in a partitioned section housing four women. This has been the physical structure since that time. Women now report hearing the men "talking loudly enough to be heard" at night making critical disparaging remarks about themselves or other women. Physical performance at morning PT and weight seem to be the other major issues for the men.

One woman cadet in the Class of '82 described her summer's experience for me as follows (and I think it is an accurate view of what many women probably experience): One way a cadet knows they belong to the platoon at Camp Buckner is to be allowed to spend time on the stairs of the barracks (commonly referred to as "the stoops"). It is here at night where the platoon smokes and jokes and talk about the day's accomplishments and the challenges of tomorrow. This cadet indicated she very much wanted to feel a part of the platoon - she wanted to "earn her spot on the stoops." She indicated since

she was not overweight and could make the runs that she had the edge on several of her female classmates. She described "compromising herself" in terms of allowing the men to use abusive language around her, to laugh at jokes, and to not comment about the anti-women remarks they made. When she had then earned her spot, she let them know gently that she disagreed with their comments concerning women and tried to educate them more regarding their classmates. She describes earning her spot as being a painful thing since she did have to be very careful of what she said and listen to hurtful remarks about her classmates, she felt she couldn't defend. She also indicated that originally she saw herself beginning to think like the men and agreed that the other women just couldn't cut it or didn't belong. Talking to these women after taps and seeing how hard they were trying, led her to her original beliefs and ultimate defense of the women. Judging from the remarks many women make about each other, this thinking is not uncommon - that is, also judging women on physical performance and appearance rather than on other qualities.

One source of stress for women cadets which keeps raising its head is in the area of physical performance. Women are graded on a scale different from men on the "Doctrine of Equivalent Training." In practical terms, this means that a time for the two-mile run which will net a woman cadet an "A" may be only slightly above failing for a male cadet. It seems that although cadets understand intellectually the reasons for differences in scoring criteria on physical performance tests, this continues to be a source of distress.

Additionally, intramurals play an interesting role here also. Women are sometimes put on company teams where they are the only one or one of two women players. Rules require all cadets to participate in one fourth of each game. It is not uncommon to hear "We lost because of her" and conversely, "We won in spite of her."

Jobs for women cadets in the chain of command also pose a potential source of discomfort. There are still those who believe women get good jobs because of tokenism and preferential treatment rather than because they deserve them. Often times it appears women are placed in the bind of either a good competent soldier or a good woman, with these two concepts being exclusive of each other.

Finally, as LTC Wilson remarked, weight is an issue for the women. We may not recognize yet that equal caloric intake and exercise output may yield different results on men and women. Some women report they gain or fail to lose weight in an effort to get men to leave them alone. Many women are perceived as overweight (Hudson Hips Disease).

So, given an extremely demanding environment with many pressures inherent on all cadets and possibly some additional ones on women only, we asked how do the cadets cope with such stress?

As you might expect, some physically leave, that is, resign before they receive their commission. Others gain weight as has been mentioned. Still others attempt to withdraw from the mainstream and blend in; there is a press for women to not stand out but rather to blend in and be one of the cadets.

Very few appear to turn to alcohol, drugs, or acting out behaviors. Some do seek out friends, classmates or the helpers on post (Chaplains, CCC) for assistance. Those women who are on club and varsity sports seem to have a built-in support system within their sports. This is not without its disadvantages, however, the successful women sports teams have been subjected to rumor.

There are extracurricular activities some cadets choose to be involved in. One seminar, the Corbin Seminar, was designed with the idea of becoming a forum to discuss women's issues. While membership has grown steadily, there is a clear hesitancy for women to belong to an organization identified as the Women's Group. Interestingly, the same dynamics can be observed among women officers.

Table 1

WOMEN OFFICERS WORKSHIP

Tues. Evenings 1900-2030 hrs

1. Analyze perceptions of women toward the military mission.
2. Identify roots of frustrations.
  - a. coping mechanisms
  - b. experiences
3. Enhance self image.
  - a. acceptance of "non standard" roles
  - b. pride in being a woman
4. Develop effective projection and assertiveness without guilt and/or feelings of inadequacy.
  - a. perceptions of male personnel, subordinates and superiors
  - b. experiences
5. Bettering feminine relationships.
  - a. trust and dependency on women
  - b. jealousy
6. Recognize rights and obligations.
  - a. expectations
  - b. dealing with "self fulfilling prophecy"
7. Maintaining "femininity" while being professionals and leaders.
8. Better understanding of the male/female relationship.
  - a. sexual implications (voluntary and involuntary)
  - b. pregnancy
9. Understanding the "male point of view" towards women.
  - a. feminine perceptions
  - b. recognize, vent and analyze perceptions
10. Provide observations/learning experiences to other military women experiencing similar frustrations.

THE RELATIONSHIP OF PHYSIOLOGICAL AND PSYCHOLOGICAL FACTORS  
TO INJURIES IN FEMALE BASIC TRAINEES

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MEDDAC  
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Women entering the Army are exposed to considerable physical stress due to the intense physical training program encountered. At the beginning of a basic training cycle a prospective study was initiated to identify exercise related injuries and performance-limiting conditions that resulted and to identify some of the factors that may contribute to their occurrence. Four hundred women recruits, aged 18-29, participated in the study. All had passed an initial physical examination and were without any limiting disabilities. An initial assessment of physical fitness was accomplished to determine the current status of body composition, strength of the major muscle groups (e.g., legs, trunk, arms and upper torso), aerobic capacity, previous athletic history, self perception of physical fitness, and psychosomatic predisposition. The training and conditioning program consisted of 1hr/day, 5-6 times a week and involved a series of standard warm up calisthenics and stretching exercises followed by a run, beginning at 3/4 mile at a 10 min/mile pace and increasing to two miles at 9-1/2 min/mile by the end of training. Extensive road marches and military training activities were also included. At the end of training a self report injury questionnaire was used to collect data. These data were documented with the records from the unit dispensary and data provided by the installation physical therapy, orthopedic, and podiatry clinics. Fifty-four percent (215) of the women sustained some reportable injury. These injuries resulted in an average training time loss of 13 days. Forty-one percent of these injuries prevented participation in all activity, 31% resulted in only limited participation. The injury data were correlated with prior-fitness measures, documenting that a major cause of injury in women can be attributed to (greater body weight and fat percent), lack of prior conditioning, limited leg strength. These factors, coupled with some inherent physiological characteristics of women (i.e., wide pelvis, less strength, and greater joint flexibility), contributed to the increased risk of injury in these women. It is concluded that susceptibility to these potential orthopedic and medical conditions can be identified prior to the beginning of training and minimized through proper remedial actions before a strenuous PT program is initiated.

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An expanded version of this can be found in The American Journal of Sports Medicine 3(#4), 1980, pp. 265-69, entitled "Nature and causes of injuries in women resulting from an endurance training program."

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THIS PAPER IS A COMPONENT PART OF THE FOLLOWING COMPILATION REPORT:

(TITLE): Proceedings of the AMEDD Psychology Symposium Held at Washington, DC  
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Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

PSYCHOSOCIAL FACTORS AFFECTING THE HEALTH AND WELL-BEING  
OF WOMEN IN THE ARMY: A PILOT STUDY

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Fear of Success can be defined as a set of expectancies about the negative consequences of a set of norms (Condry and Dyer, 1976). Research on Fear of Success in women dates from Horner's work in the 1960s on fear of success. Fear of Success for women was conceived of as resulting from females' fear of social rejection if they were to become highly successful (Horner, 1972).

Horner devised a projective test whereby subjects were asked to complete a story that begins, "after first term finals, Anne (John) finds herself (himself) at the top of her (his) medical-school class." Females wrote about Anne, males about John.

Males' stories generally indicated happiness and feelings of satisfaction over achievement, for example: "John is a conscientious young man who worked hard. He is pleased with himself. John has always wanted to go into medicine and is very dedicated...John continues working hard and eventually graduates at the top of his class."

Females' stories, on the other hand, were often bizarre:  
1) "Anne starts proclaiming her surprise and joy. Her fellow classmates are so disgusted with her that they jump on her body and beat her. She is maimed for life;" 2) "Anne is an acne-faced bookworm. She runs to the bulletin board and finds she's at the top. As usual she smarts off. A chorus of groans is the reply;" 3) "Anne is a code name of a nonexistent person created by a group of medical students. They take turns writing for Anne" (Hyde, 1976).

Fear of Success can be considered a stressor for women, especially those who are entering a nontraditional field, medicine, in Horner's example and certain Army occupational specialties in the present study.

Women have been in the United States Army for a long time; however, only within the past ten years have certain jobs been open to them. These jobs, like military police, maintenance specialties, etc., can be considered nontraditional for military women as opposed to traditional jobs, e.g., personnel clerk in an Army headquarters or Army nurse.



We can hypothesize that women in nontraditional Army units experience the stress of achievement conflicts since they work in historically male-dominated environments. We further postulate that these achievement conflicts will affect their sense of psychological well being and job satisfaction.

#### METHOD

Data for the present study were collected as part of a research project on psychological factors affecting the health of women in the Army conducted by members of the Department of Military Psychiatry at the Walter Reed Army Institute of Research.

The subjects were 67 Army enlisted women (31 from "traditional" units and 36 from "nontraditional" units). Women were drawn from a random sample of women on a military post and then were asked to volunteer for the study. Approximately 98% of those asked to volunteer consented to do so.

#### Measures

Achievement Conflicts. Zuckerman and Allison's Fear of Success Scale (1976) was used as the measure of achievement conflicts. This scale consists of 27 items, such as "A successful person is often considered by others to be both aloof and snobbish" and "It is more important to play the game than to win it." A subject circles a number from 1 to 7 depending on her level of agreement (a one is strongly disagree while a seven is strongly agree). For half the items, agreement is keyed high achievement conflicts while for the other half, disagreement is so keyed. The individual item scores are then added to give a total score. Zuckerman and Allison found that their scale positively correlated with Horner's projective task.

Psychological Well Being. The General Well Being Scale (GWB) developed by Dupuy at the National Center for Health Statistics (1978) was used as a measure of psychological well being. The GWB is a 18 item multiple choice scale indicating the presence and severity or frequency of certain symptoms of distress. The first fourteen items of the GWB are scored on a six point scale. The last four items of the GWB are scored on a 10 point scale. A total score is derived from the numeral scores of these items.

Scoring for the GWB is as follows: Half of the 18 items are keyed so that a score of 1 would indicate high general well being while the other half are keyed so that either a 6 or 10 would indicate high general well being.

Job Satisfaction. Subjects were asked to indicate on a 7 point scale how satisfied they are with the military (1 was not at all satisfied, 4 was moderately satisfied, and 7 was highly satisfied).

## RESULTS

Relationship of Achievement Conflicts to General Well Being. Pearson product moment correlations were calculated for the data. Overall achievement conflicts were not related significantly to the general well being measure, nor was this relationship significant for either the traditional or nontraditional units.

The overall mean for achievement conflicts was 110 ( $SD = 12$ ). This was similar to Zuckerman and Allison's sample (1976). Their mean was 113 ( $SG = 14$ ). The means for both the traditional and nontraditional units were also 110.

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Insert Table 1 about here

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Table 1 shows the average general well being scores for the women sampled. The average score for women from traditional units was 65.7; for women from nontraditional units, it was 61.9. Overall, the average was 63.7. All the averages fell into the moderate distress range of the national sample. The average score for women in the national sample was 77.00, which is in the positive well being category.

Because of the low overall average of our sample, we further broke down our sample in the fashion presented in Table 2. Sixty-three percent of the total sample fell into the severe or moderate distress categories, compared to 34.7% of the national sample.

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Insert Table 2 about here

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Relationship of Achievement Conflict to Job Satisfaction. Pearson product moment correlations were again calculated. Overall achievement conflict scores did not relate significantly to job satisfaction. They also did not relate significantly in the traditional units. However, there was a slight negative correlation between these two variables among the women from nontraditional (Pearson  $r = -.32$ ,  $p < .10$ ).

Over 67% of the samples of women from both the traditional and nontraditional units expressed moderate to high satisfaction with the military.

#### DISCUSSION

While the predicted relationship between achievement conflicts and general well being was not found, a very low degree of general well being for the sample of women in the study was evident. Whether this low psychological well being is related to: 1) the personalities of women coming into the Army, 2) the environment of the particular Army post on which the study was conducted, or 3) other factors, can only be conjectured at this time.

Further research is necessary to determine what factors may be relating to such low psychological well being among Army women. In addition, other studies need to consider general well being scores in samples of Army males.

Achievement conflicts did relate to job satisfaction among the women in nontraditional units with higher achievement conflicts relating to lower job satisfaction. However, this relationship only approached significance. Also, more than two-thirds of the individual and overall samples expressed moderate to high satisfaction with the Army which leads us to speculate that Army women may have high job satisfaction in spite of the achievement conflicts they may experience in nontraditional units. But, further research will be required to delineate the exact nature of the relationship of these variables.

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**TABLE 1**  
**Average General Well Being Scores**

|                                           | <b>Average<br/>Score</b> | <b>Sample<br/>Size</b> |
|-------------------------------------------|--------------------------|------------------------|
| <b>Women<br/>(Traditional Units)</b>      | <b>65.7</b>              | <b>31</b>              |
| <b>Women<br/>(Nontraditional Units)</b>   | <b>61.9</b>              | <b>36</b>              |
| <b>Average Overall<br/>(Total Sample)</b> | <b>63.7</b>              | <b>67</b>              |

TABLE 2

Number of Women Falling Into General Well Being Scale  
Categories of Severe Distress,  
Moderate Distress, and Positive  
Well Being By Unit Type

|                                     | Severe<br>Distress | Moderate<br>Distress | Positive<br>Well Being |
|-------------------------------------|--------------------|----------------------|------------------------|
| Scores                              | 60-                | 61-72                | 73+                    |
| Traditional<br>Units                | 13                 | 8                    | 10                     |
| Nontraditional<br>Units             | 13                 | 8                    | 15                     |
| Total                               | 26                 | 16                   | 25                     |
| % of Total                          | 39%                | 24%                  | 37%                    |
| % of Women in<br>National<br>Sample | 17.1%              | 17.6%                | 65.5%                  |

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

SEXUAL KNOWLEDGE AND CONTRACEPTIVE USE  
AMONG FEMALE AND MALE ENLISTED SOLDIERS

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INTRODUCTION

During interviews conducted with enlisted females at Fort Riley prior to Reforger '78 and at Fort Meade in 1979 (unpublished data), a lack of knowledge about sexual functioning, contraceptive methods and their correct utilization was noted. As well, various Army reports indicate a 10-15% pregnancy rate for active duty females. Health Service Command statistics for CY 76 and "Questions and Answers About Women" prepared by the Office of the Secretary of the Army in 1978 indicated approximately one-third of females loss time was pregnancy related. Just as increasing adolescent pregnancy rates encouraged research regarding the sexual knowledge and contraceptive use of adolescents, the pregnancy rate and loss time figures have generated an interest in the sexual knowledge and contraceptive use of Army women. The Army also has a responsibility for the health and welfare of the troops, within the medical arena, this includes providing contraceptive information and guidance.

This is a report of responses to a Sexual Knowledge and Contraceptive Use Questionnaire administered to a random sample of females (N=114) and male (N=48) at a northeastern Army post in 1979. The instrument was designed to obtain a broad overview of the sexual knowledge, contraceptive practices and attitudes of enlisted men and women and to provide a basis for further research and education efforts and innovations. The Questionnaire elicited information regarding the following specific areas: (1) knowledge of various methods of contraception, venereal disease and other genitourinary conditions; (2) self-perception of comfort with sexual matters; and (3) contraceptive use. The Ns are small, therefore, the findings primarily descriptive but dominant themes and general conclusions can be drawn from these results.

MAJOR FINDINGS

Female respondents scored consistently higher than males in most areas in the Sexual Knowledge section; however, most scores were within ten percent of the

males. Exceptions were the topics of "conception," "withdrawal," and "foam," in which female respondents' scores were 15-18 percent higher. Both sexes scored more than 65 percent correct on questions about venereal disease, genito-urinary problems, condoms and the birth control pill. Both scored less than 50 percent correct on questions about "foam," "diaphragm," "IUD," and "douche."

Utilizing Students' "t" test for differences in mean scores on the "Sexual Knowledge" and "Comfort with Sexual Matters Scales," significant differences occurred between demographic categories of education and age for females, and education, age, rank and marital status for males. The mean "comfort with sexual matters" scores for females who were at risk for pregnancy and using birth control versus those at risk and not using birth control were not significantly different, nor were the scores significantly different for women who had to see a physician for their contraceptive device versus those who did not. However, there were some demographic differences, with the "at risk non-users" being younger, less educated, more often single and more often white than the "at risk users" or the female respondent population in general.

Of the female respondents, 13 percent (N=15) were not "at risk" for pregnancy because of sexual inactivity, virginity, etc; 22 percent (N=25) were pregnant or trying to conceive and five percent did not respond to the question. Of the remaining 60 percent (N=69) almost all of the respondents (N=62) were using a contraceptive method.

Nineteen percent (N=10) of the female birth control users missed questions on "their method" considered vital for contraceptive success. Twenty-six percent (N=6) of the males, current or past users of the condom, missed questions vital for its contraceptive success. Less than 50 percent of the single males in the study ever ask their partner if she is using a form of contraception.

There were 32 women (28 percent of the female sample) who were: 1) pregnant (14 women or 12 percent); 2) wanted to get pregnant (11 women or ten percent); 3) or may be pregnant with no indication of a wish for pregnancy (seven women or six percent). All of the women who were pregnant were married, 64 percent (seven) of the women who wanted to get pregnant were married and 14 percent (one) of the "may be pregnant" women were married. The "may be pregnant" group was more often younger, single and Black than the total female population.

## DISCUSSION

As expected, it was found that the females scored consistently higher than the males in almost all areas of the sexual knowledge section. However, the deficiencies in knowledge parallel each other in many areas, indicating educational areas that need to be stressed for men and women are similar.

The females who were under twenty years old scored significantly lower on the sexual knowledge section and comfort with sexual matters scales as did those



females with only a high school diploma. Since this questionnaire was administered, the Army has had policy changes which now allow women to enter with less than a high school diploma. One can speculate that women without diplomas would also score significantly lower on these sections. In recognition of this, it might be well advised to return to a larger block of instruction on contraceptive utilization in Basic Training.

The finding that most of the females at-risk for an unplanned pregnancy are contraceptive users is encouraging. However, our enthusiasm over this must be tempered by the finding that approximately one-fifth of these users missed questions, about their own method, which is considered vital for successful contraceptive use. These findings reinforce the need for continual educational efforts by health care providers beyond the initial introduction of a contraceptive method.

Although our primary focus in this study is on women, the findings indicate several areas of concern for men as well, these are; the lower sexual knowledge scores by males in the areas of conception and withdrawal, the findings that one-fourth of current or past condom users missed vital questions on that method; and that less than half of the single males ever ask their sexual partner about her use of birth control. These issues could be addressed during the personal hygiene class during Basic Training.

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### THE IMPACT OF SOLE PARENTING AND PREGNANCY ON DEPLOYMENT

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This presentation is drawn from two samples: (1) pregnant female soldiers who did not deploy with their units to Germany during a REFORGER exercise and (2) male soldiers who responded to a request to discuss their problems in dealing with dual roles of deployable soldier and sole parent. The information is from interviews and questionnaires, and points up the need for the Army to consider new perspectives and policies regarding the active-duty soldier/parent. Because the sample size of these two populations is small, it is very risky to generalize from these figures and assume they are accurate for other populations. These samples suggest trends that will be explored in greater detail at a later date.

### THE FEMALE SOLDIER AND PREGNANCY

On 24 August 1980, the WASHINGTON STAR'S staff writer, John Fialka, commented in his article entitled "Pentagon Asks Army to Recruit More Women," that large numbers of female recruits were not finding a home in the Army. An army official was quoted as pointing out three major problems in this area. The first was that women recruited into so-called nontraditional fields were switching in large numbers into more traditional areas, leaving their skilled technicians' slots empty. Secondly, because of the Privacy Act and various changes in federal law, the Army has lost track of pregnancy statistics in their units, which directly affects assessment of combat readiness. Thirdly, a large percentage of women continue to leave the Army before their first enlistment is up, and the reenlistment rate for women also falls off sharply (when compared with that for men), making it very difficult for the Army to retain experienced female noncommissioned officers. According to Army statistics, 43% of the women who enlisted in 1977 are now gone, dropping out before completing their first term; among men, that figure is 35%.

As a member of a team investigating the effect of jet lag on deployment, the author went to Ft. Riley, Kansas, in late January 1979 to study 1st Infantry Division troops as they deployed to Germany. As

part of her mission, she was asked to look at the problem of pregnancy among the deployable female troops as there was a reported 20% pregnancy rate among those women. Twenty (20) women were available for interviews; they had been left behind because they were known to be pregnant. These women represented DISCOM and 1st Signal Battalion, and were thought to include all the known pregnant soldiers assigned to those units.

The task was to ascertain whether any of these women had become pregnant in order to avoid REFORGER. Further, the author was to examine what factors were involved in being left behind during such a deployment exercise.

The statistics are as follows:

a. According to the figures provided, DISCOM's pregnancy rate was only 8.3% (27 out of 324). The 121st Signal Battalion had a pregnancy rate of 13.8% (13 out of 94). Of the DISCOM units, 1st Medical had the highest overall rate of 14.3% (7 out of 49).

b. While these figures can certainly be construed as significant to commanders and logisticians; they are not significantly different than the Army-wide rate in 1977 (15%) or the 10% rate of the 24th Division's DISCOM when the author was stationed with it in 1976-1978.

The author observed that the women interviewed did not appear for the most part to have used pregnancy to avoid the REFORGER exercise: many of these women had husbands and boyfriends who deployed on it. Several of the same had strong unit, job and personnel affiliations that seemed strained by nonparticipation in REFORGER. Those with indifferent ties did not view their nonparticipation in the same light; many of these women were planning to separate from the Army because of their pregnancy--and in those cases pregnancy can be viewed as an excuse to separate from the military.

There were several observations gleaned from the interviews. First, there seemed to be a prevalent traditional philosophy about marriage and motherhood among the women interviewed. Most of the women wanted to stay at home and care for the child, and many had decided to get out of the Army, whether they were married or not. The married women all said that they had the full support of their husbands in this matter, but only a few appeared to have considered problems that might flow from this decision, such as financial strains and the lifestyle limitations of motherhood. The second observation concerned how the women viewed themselves as part of their work group or unit: the women who appeared least confident about their abilities on the job also seemed to have weaker ties to their work group. Many of these same women were unhappy with their jobs, and seemed more likely to use their pregnancy as an excuse to get out of the Army.

Thirdly, the women who were trained in a nontraditional MOS and seemed happy with their jobs also seemed more willing to be the most acutely aware of their superior's negative attitudes about their pregnancy and future maternity leave. The fourth observation--concerning the possibility that the women may have used their pregnancies to avoid the field exercise--was that only a couple of the women gave the author the strong impression that they might have become pregnant in order to avoid the deployment. Several of the women stated that they had really wanted to go on REFORGER, pregnant or not. None of these women were clear about why compulsory profiles were given to all known pregnant women.

#### THE MALE SINGLE PARENT SURVEY

The task was to survey active duty male single parents in response to a dearth of knowledge about the population and a need to have such information for WRAIR's Women's Study. The data was collected at Ft. Lewis/Madigan Army Medical Center. The central goal of the study was to look at the problems and demography of the male single parent.

Subjects for this survey were self-selected, as they responded to an ad placed in the Post newspaper concerning the need for male single parents willing to volunteer to fill out a questionnaire and discuss any additional issues about their single parent status. Many male single parents called about the ad and asked about participation, but because of the numerous field problems being conducted during the survey period, only ten Army subjects were able to complete the survey. The majority of the questionnaires were returned in distribution mail, and the interviews were completed in late August.

The respondents ranged in age from 22 to 51 years, with a mean age of 36.3 years. There were 6 officers and 4 enlisted men; officers were over-represented in the sample. These men had between 1 and 5 children (the mean was 3.3). They had served in the military an average of 17 years (the range was between 40 months and 386 months), had been stationed at Madigan/Ft. Lewis for an average of 25.3 months (the range was 9 to 36 months), and had an average of 4.5 years in grade. These men were mostly Protestant, the majority were Caucasian, and most of them had at least some college education. (NOTE: This is not a representative sample of active-duty male single parents. The respondents can be said to represent only themselves, and not necessarily other active-duty single parents: Caution is therefore recommended in generalizing these findings.)

For the most part, all of the respondents agreed on the importance of certain issues to their status as single parents. The primary issues were: 1) work responsibilities, 2) child care, and 3) career status. A secondary issue seemed to be the situation by which the men became single parents. This seemed to be an issue because most of the men

were still working through the emotional impact of the situation (two-thirds of the men were divorced, and the remaining third were widowers).

What all of these men had in common--other than their status as single parents--was a need to successfully combine a career and parenthood. All of the men had made a considerable investment in their Army career in terms of time and skill acquisition. Few of the men mentioned that they were interested in marrying again; most of the men were very committed to the care of their children, and were working out the problems as they came. Many of the divorced men had actively sought custody of the children, even though a relative may have offered to care for the children. Most of the men surveyed were willing to make the compromises necessary to be a good parent, but were unwilling to accept any overseas assignment or deployment without a fight, even though they were aware of the requirements the Army put on them in this area. Most had stable childcare arrangements worked out, but many admitted keeping a low profile in their role as a single parent in order to avoid problems in his work section. These men seemed quite aware that many women in their units were treated as somewhat unreliable because they were single parents, and they were worried that they would receive similar treatment if attention were drawn to their status. Each man agreed that the military could do more to help the single parent, and that the military might take another look at the problems it created for the sole parent in case of deployment.

#### THE ISSUES

The military has yet to answer the questions it has raised about what is a statistically significant rate for nonparticipation in deployment and field exercises. Should planners and logisticians adjust readiness standards to allow for such nonparticipation, or should the military take a hard line and expect that soldiers will deploy as required? The answers the military gives to these questions will have a great deal of influence on the Army's treatment of pregnant soldiers and those who are sole parents, but it will also affect all soldiers who have dependents left behind when the soldier's duty requires he or she be absent from the home for prolonged periods. Gone are the days when soldiers were either unmarried or had spouses who took over the care of dependents if the soldier was called away. The All-Volunteer military reflects the changing time of life in America, and had had to adjust to a variety of new problems--unwed mothers, divorce, dual career families and single parents, to name a few. To this end, the Army required a dependent care plan (DCP) be submitted for the care of dependents in case of contingency (deployment, CQ, alerts, remote duty, etc.), which seem designed to make the soldier do some long-range planning to meet both military and family obligations. But does this solve the problem?

If parenthood interferes with the soldier's military duties, a bar to reenlistment or forced separation from the Army can result. The military parent with potential conflicts is cautioned to not expect the Army to help remedy the problem by careful juggling of assignments, or that a kind-hearted commander will continue to be understanding about child care problems when the soldier is not pulling his or her weight in the unit because of parenthood. One is being overly optimistic to think that this advice is being universally heeded, or that this is a problem for a rather small segment of the military population. In mid-1978, the Army noted that 15,600 men and 2,000 women on active-duty were single parents, and in 1979 claimed a 10% pregnancy rate among enlisted women. There were no figures available for dual-career families with children, but the number appears to be increasing rather rapidly. The problem of the soldier-parent is unlikely to disappear, but universal policies on the matter have yet to be implemented.

But there are on-the-job issues facing single parents, pregnant soldiers and dual-career families that may not be solved by logistical planning; in fact, these problems are possibly the most disturbing to the well-being of the people involved and ultimately to a state of military readiness. The issues here are attitudinal and behavioral, and involve the way the soldier-parent is viewed by others and subsequently treated on-the-job.

The pregnant soldier, because her status becomes increasingly obvious, may have the most evident problem. Pregnancy is a normal segment of many women's lives, but the military, with its relatively recent addition of large numbers of females into its ranks, has had difficulties in dealing with this problem. How does one treat a pregnant soldier? What are the expectations for such a soldier? Policies on the treatment of women and maternity issues are in constant flux, and many commanders are forced to rely on their own judgment. A woman has the option of leaving the military at a point during or after her pregnancy, or she may remain in the military and continue to march as a soldier with child. The choice is largely hers, and she is expected to soldier in a reasonable way. But there has been enough confusion about policies and uniforms and enough individual differences among women and their abilities that many line NCO's and officers as well as military planners have thrown up their hands and suggested that perhaps women should not be allowed to remain in the Army if they are going to have children. Where does this leave the female soldier who can handle the dual responsibilities, but is not allowed to do so? There is a distinct Catch-22 inherent in this problem--the problem of pregnancy and maternity should be handled on an individual basis if one is to be fair to the women involved, but can military planners do this and still make workable decisions on readiness issues? Pregnant female officers seem to be treated better than female enlisted women in the same condition, but it is unmarried pregnant women who appear to have the most negative experience of all.

Perhaps it is the overall view of pregnancy--attitudes of both the pregnant woman and the people dealing with her are so varied, and there is so much room for potential conflict, that it might seem amazing when a conflict does not arise for the pregnant soldier.

Problems with single parents or dual-career families frequently take similar paths--there is so much individual variation in abilities to adjust and deal with situations that hard and fast rules appear useless. Officers seem to have fewer problems at work, but they have better financial resources and therefore more options, especially in the area of childcare. But male officers in this sample seem as reluctant to let their status as a single parent be known as were the enlisted men--both groups seem to fear that there will be negative connotations made about their ability as soldiers which will affect their careers, even when they are managing their situation well. Apparently the assumption was made that because they have the dual status of soldier and parent they cannot perform adequately as a soldier. Perhaps the military demands single-minded attention to the role of soldier. If so, who does the adjusting--the military or the soldier? What adjustments have to be made? The person called a soldier today may have a myriad of other roles just as crucial to him or her. The demands on the soldier's time and personal resources may be different than they were for the soldier of ten or twenty years ago--but the needs of the military remain much the same. Readiness and deployability are major components of an effective military when faced with the present world situation. Of the people interviewed, only a few seemed to have any concept of what this means to them as soldiers with a military commitment--faced with a conflict that took them away from home, many would leave the military. For them, it is no longer humorous to ask: "What if they have a war--and nobody comes???" The Army must make some hard decisions about who it wants to fight its wars and soldiers in its ranks must make the adjustments necessary to alleviate basic conflicts as they presently exist.



## COMPONENT PART NOTICE

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|               | Street Pump Now?                                          |
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Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

MALE AND FEMALE  
PERFORMANCE ON MILITARY  
RELATED TASKS

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Introduction

A few years ago the Human Engineering Laboratory (HEL) began a serious consideration of the implications of greater utilization of female personnel in the Army. One program was initiated to provide answers to more immediate and applied problems such as those relating to anthropometric considerations in equipment and weapons design and to considerations of strength capabilities required in operating and repairing various types of equipment or weapons.

Another program, which is the subject of this paper, was initiated to perform more basic investigations of performance variables which might have more subtle implications a little farther down the road. In this regard, we set forth to determine whether or not there exist sex differences in performance abilities in the more traditionally defined areas of behavior. Further, we sought to determine whether or not certain aspects of female soldier performance might be influenced by cyclical factors associated with the menstrual cycle.

Our first step was to conduct extensive literature searches in such disciplines as psychology, human factors, physiology, and women's studies. One result of these searches was the publication of two bibliographies, one dealing with sex differences in performance abilities (Hudgens & Torsani-Fatkin, 1980) and another dealing with menstrual influence on performance and with women in nontraditional occupations, including a very large section on women in the military

(Torsani-Fatkin & Hudgens, 1980). Each bibliography has about 1500 references, and both are available on request from us at the HEL. The other important result of the searches was our determining several performance areas for further study in our laboratory. Those which we have been able to start examining so far include: auditory thresholds, hand-steadiness, and risk-taking behavior.

### Experiments on Auditory Thresholds

We chose to look at auditory thresholds first for several reasons. First, some investigators (e.g., Semczuk, Przesmycka, & Pomykalski, 1967) had reported finding sex differences and menstrually related shifts in hearing thresholds which were large enough to have serious implications for communications, for instance. These effects were similar to those reported elsewhere for other sensory thresholds (e.g., Diamond, Diamond, & Mast, 1972). Second, the issues of sex differences and possible menstrual influence were not settled since other investigators had reported their inability to find such effects or to find effects of the same magnitude or at all frequencies (e.g., McGuinness, 1972). Third, our laboratory was particularly well equipped for research in this area.

Table 1

#### HEARING THRESHOLD EXPERIMENTS

| EXPERIMENT | SUBJECT GROUPS             | TEST SESSIONS                      | MENSTRUAL CYCLE PHASE | TEST TONE FREQ. (Hz) | TEST EAR                  |
|------------|----------------------------|------------------------------------|-----------------------|----------------------|---------------------------|
| I          | 1. MALES (N=8)             | WEEKS                              | RIDECYCLE (X-2)       | 500                  | 1. LEFT                   |
|            | 2. FEMALES PILL (N=8)      | 1. INITIAL SCREENING               | PRE PERIODS (X-1)     | 1000                 | 2. RIGHT                  |
|            | 3. FEMALES NON-PILL (N=8)  | 2-9. EXPERIMENTAL TESTS (ONCE/WEK) | PERIODS (X)           | 2000                 |                           |
|            |                            |                                    | POST PERIODS (X+1)    | 3000                 |                           |
|            |                            |                                    |                       | 4000                 |                           |
|            |                            |                                    |                       | 6000                 |                           |
| II         | As Above (N=11/Group)      | As Above                           | As Above              | As Above Plus 8000   | As Above                  |
| III        | 1. MALES (N=32)            | One Only                           | ---                   | As Above             | As Above (Order Balanced) |
|            | 2. FEMALES PILL (N=5)      |                                    |                       |                      |                           |
|            | 3. FEMALES NON-PILL (N=21) |                                    |                       |                      |                           |

The designs for our first three experiments are shown in Table 1. Hearing thresholds were obtained using standard clinical audiometers modified to shift the "normal" range by

30 dB in order to get test readings from subjects with better than normal hearing. In all three studies, we tested groups of men, women taking birth control pills, and normally cycling women not taking birth control pills. In Experiments I and II the subjects were tested nine times and in Experiment III only once. The cycle phases were defined by determining (from questionnaires) a menses test date during weeks 3-7 and counting forward or backward from there for the other phases. The test frequencies were 500-6000 Hz in Experiment I. 8000 Hz was added thereafter when we started using a different audiometer.

For the sake of brevity, where appropriate the results from some of the experiments are combined. In Table 2 results from Experiments I and II are combined. The men demonstrated worse hearing than the women's groups for the left ear which was always tested first, according to standard clinical practice.

Table 2

**HEARING THRESHOLDS**  
**EXPERIMENTS I AND II COMBINED**  
**MEAN THRESHOLDS**

| GROUP               | EAR  |       |
|---------------------|------|-------|
|                     | LEFT | RIGHT |
| MALES               | 34.9 | 30.5  |
| FEMALES<br>NON-PILL | 30.6 | 30.9  |
| FEMALES<br>PILL     | 29.8 | 29.4  |

In Table 3 for Experiment III, it can be seen that this difference was the same for both ears when the order of presentation was counterbalanced. (Please note that a constant of 30 dB was added to all the figures shown for hearing thresholds. Actual clinical readings would have been 30 dB lower, indicating essentially "normal" hearing for all groups.)

Table 3

# HEARING THRESHOLDS

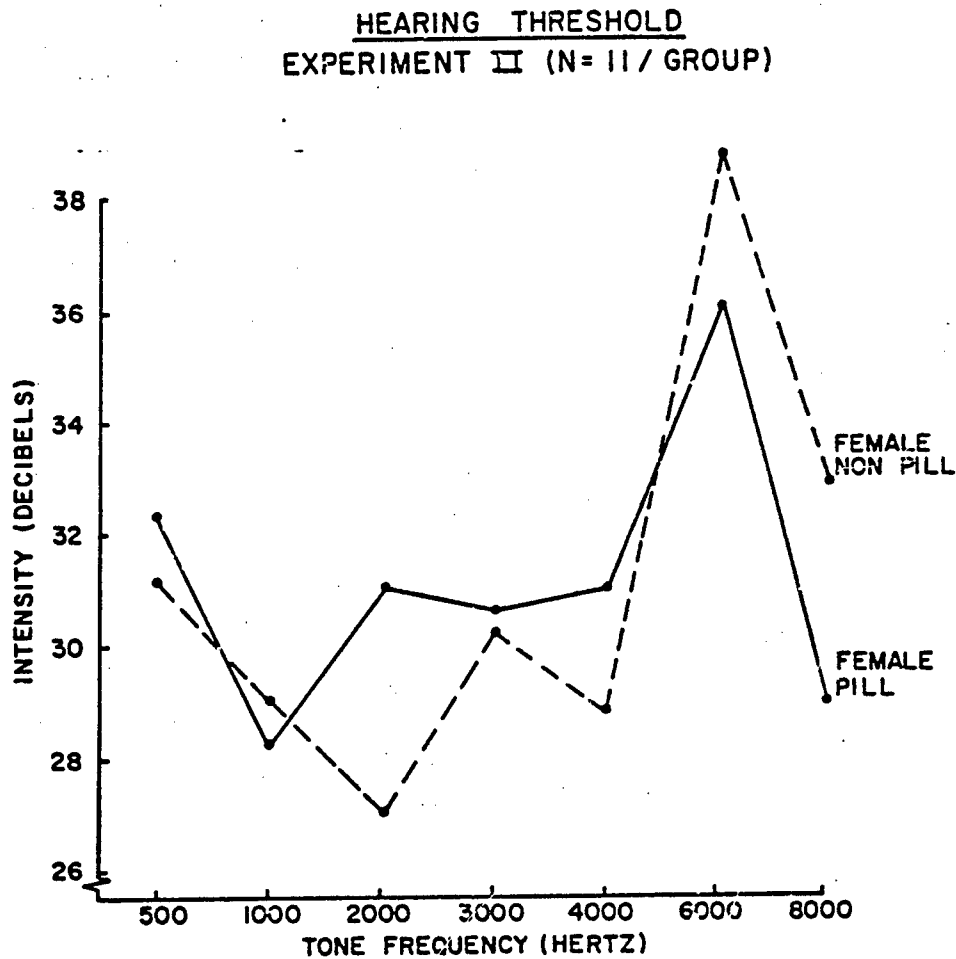
## EXPERIMENT III

### MEAN THRESHOLDS

| GROUP               | EAR  |       |
|---------------------|------|-------|
|                     | LEFT | RIGHT |
| MALES               | 36.6 | 35.6  |
| FEMALES<br>NON-PILL | 32.8 | 32.5  |
| FEMALES<br>PILL     | 30.1 | 29.8  |

A significant interaction effect was obtained in Experiment II as shown in Figure 1. The pill group showed worse hearing than the nonpill group in the middle range and better hearing at the upper frequencies. Though not significant, the results from Experiments I and III tend to verify the better hearing for the pill group at the higher frequencies.

Figure 1



The mean hearing thresholds for the four menstrual phases for the women's groups and a matched set of means for the men are shown in Table 4. The interaction between groups and phases was not significant. The primary reason for showing these data is to point out that none of the means obtained differed by more than the 5-7 dB range which is considered normal error in the measurement of auditory thresholds.

Table 4

HEARING THRESHOLDS

EXPERIMENTS I & II COMBINED

MEAN THRESHOLDS OVER MENSTRUAL PHASES

| GROUP               | Mid Cycle (X-2) | CYCLE WEEK       |            | Post Menstr (X+1) |
|---------------------|-----------------|------------------|------------|-------------------|
|                     |                 | Pre Menstr (X-1) | Menstr (X) |                   |
| MALES               | 33.0            | 32.5             | 32.5       | 32.8              |
| FEMALES<br>Non-Pill | 31.4            | 31.0             | 30.5       | 30.2              |
| FEMALES<br>Pill     | 30.9            | 30.3             | 28.4       | 28.8              |

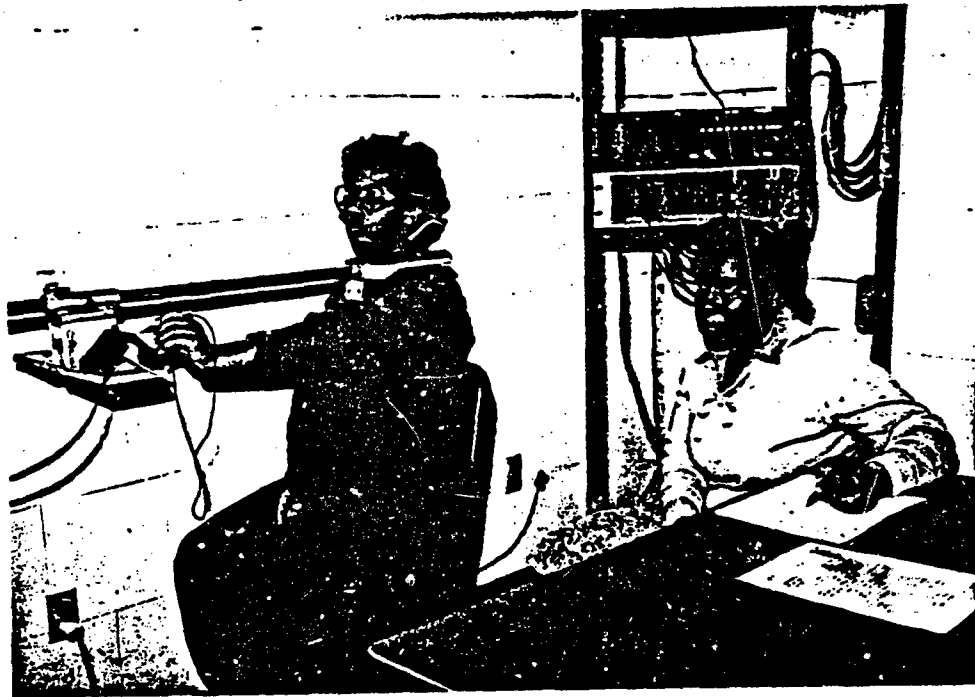
In a fourth experiment we tested the hearing thresholds of 11 women in a nonpill group for a complete cycle. Preliminary examination of the data from this experiment also shows no threshold shifts relating to phase of the cycle.

### Experiments on Hand Steadiness

Our next series of experiments involved tests of hand steadiness which interested us because of large sex differences reported in the literature (e.g., Edwards, 1948) and because of several possible military applications.

In this task (Figure 2) the subjects were asked to hold a pencil-like stylus in each of 9 holes ranging in size from 3 to 13 mm. The number of times the side of the hole was touched in a 20-sec trial was recorded automatically.

Figure 2





The experimental designs (Table 5) for the hand-steadiness experiments were similar to those for auditory thresholds. In some cases, the subjects were the same as those used in the threshold experiments. In Experiment III no pill group was tested. Repeated measures were obtained in Experiment I and III. Only in Experiment I was adequate data obtained for analysis of a possible menstrual effect. Both preferred and nonpreferred hands were tested in Experiment II. Only the preferred hand was tested in Experiments I and III.

Table 5

HAND-STEADINESS EXPERIMENTS

| EXPERIMENT | SUBJECT GROUPS                                     | TEST DESIGN                                                                                | MONTHLY CYCLE PHASE                                                       | NOSES | TEST HAND                        |
|------------|----------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------|----------------------------------|
| I          | 1. MALES<br>2. FEMALES PILL<br>3. FEMALES NON-PILL | WEEKS 1-6 (TO 8)<br>(ONCE/WEK)                                                             | WIBECYCLE (X-2)<br>PRE PERIODS (X-1)<br>PERIODS (X)<br>POST PERIODS (X+1) | 1-9   | PREFERRED ONLY                   |
| II         | 1. MALES<br>2. FEMALES PILL<br>3. FEMALES NON-PILL | ONE ONLY                                                                                   | ---                                                                       | 1-9   | 1. PREFERRED<br>2. NON-PREFERRED |
| III        | 1. MALES<br>2. FEMALES NON-PILL                    | 1. FIRST WEEK DAY 1<br>2. FIRST WEEK DAY 2<br>3. SECOND WEEK DAY 1<br>4. SECOND WEEK DAY 2 | ---                                                                       | 4-9   | PREFERRED ONLY                   |

The results from Experiments I and II (Table 6) showed that the nonpill group of women was the steadiest and that the pill group performed more like the men.

Table 6

# HAND STEADINESS

## EXPERIMENTS I AND II

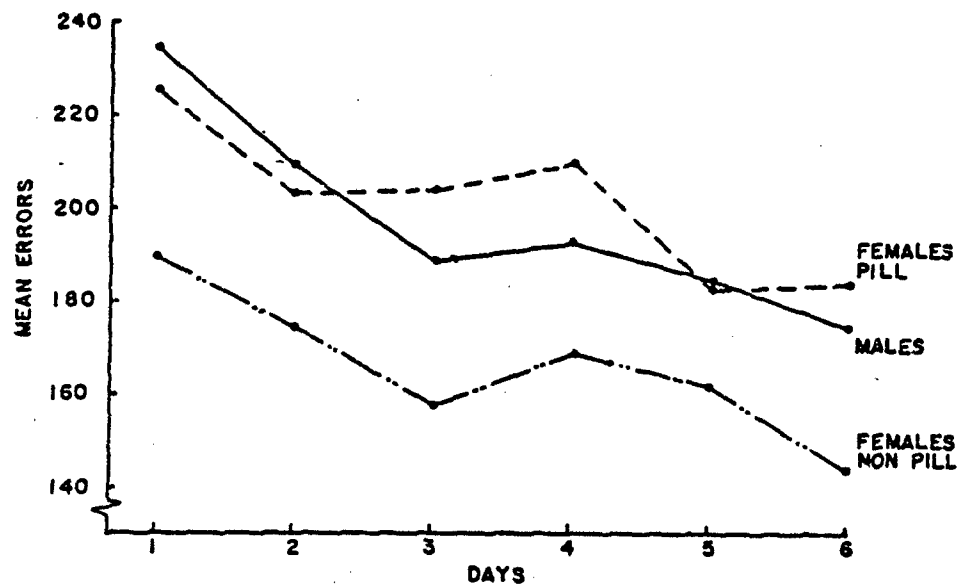
### MEAN TOTAL ERRORS (HOLES 1-9) AT INITIAL TESTING

| GROUP               | EXPERIMENT  |             |
|---------------------|-------------|-------------|
|                     | I           | II          |
| MALES<br>(N/GRP)    | 235<br>(18) | 150<br>(33) |
| FEMALES<br>NON-PILL | 203<br>(16) | 97<br>(24)  |
| FEMALES<br>PILL     | 226<br>(13) | 122<br>(5)  |

This effect is shown even more dramatically in Figure 3 for Experiment I where the group differences were maintained over the 6 weeks of testing.

Figure 3

HAND STEADINESS  
EXPERIMENT I (N=13/GROUP)



In Experiment III (Figure 4) the difference between the men and the nonpill group was not large initially, but quickly became quite apparent. Under the conditions of this experiment the men did not show the usual improvement over test days that the women did.

Figure 4

HAND STEADINESS  
EXPERIMENT III (N = 9 / GROUP)

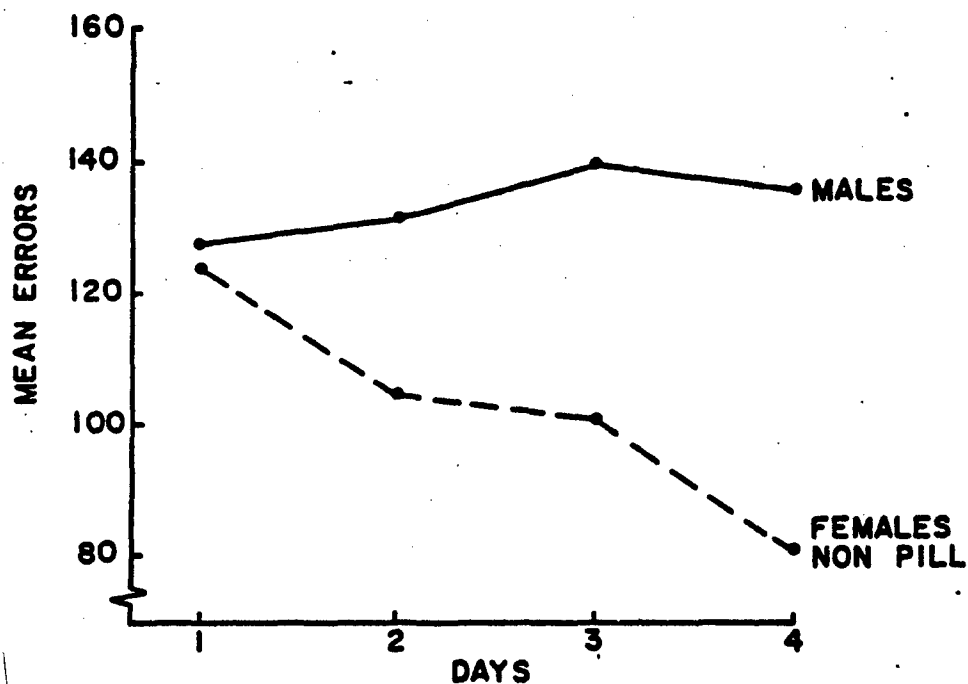


Table 7 shows the relative performance scores of the subject groups for each hand tested in Experiment II. All groups performed better with the preferred than the nonpreferred hand. The superiority of the nonpill group over the men is quite clear here. They did better with the nonpreferred hand than the men did with the preferred hand.

Table 7

## HAND STEADINESS

### EXPERIMENT II

#### MEAN TOTAL ERRORS (HOLES 1-9) FOR BOTH HANDS

| GROUP               | HAND      |               |
|---------------------|-----------|---------------|
|                     | PREFERRED | NON-PREFERRED |
| MALES               | 150       | 182           |
| FEMALES<br>NON-PILL | 98        | 138           |
| FEMALES<br>PILL     | 124       | 171           |

As in the experiments on hearing thresholds, we found no significant relationship between hand steadiness and phase of the menstrual cycle.

#### Experiments on Risk-Taking Behavior

In the next series of experiments, we began our investigation of risk-taking behavior. Our interest in this area was sparked mainly by reports on driving behavior which have consistently demonstrated a more conservative attitude toward risk taking in women drivers (e.g., Ebbesen & Haney, 1973). Our initial efforts have involved attempts to test for sex differences in simplified computer simulations of military-related test situations requiring a degree of risk taking.

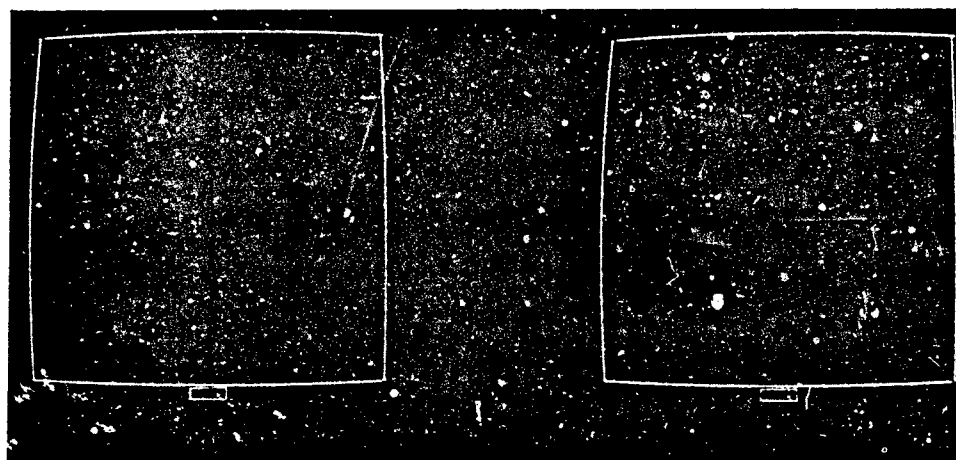
In the task shown in Figure 5, the subjects faced a screen displaying a simulated mine field with varying numbers and patterns of artillery-launched mines represented by dots in the field. The subjects were to decide whether or not to send a tank across the field based on their judgments of the chances of the tanks getting across successfully. Since the tank was not visible to the subject prior to their decision, and since it could start from any point along the bottom and proceed in a straight line through the field, the subject had only the number of mines and their patterns as bases for a decision. They could decide "go" or "no-go" and were given points or lost points based on the outcomes of their decisions. The score obtained and time-to-decision were recorded automatically for each trial.

Figure 5



Examples of two of the patterns used are shown in Figure 6. The pattern on the left is one with a .90 probability of successful crossing. The pattern on the right has a probability of .30 for successful crossing. Twenty such randomly generated patterns were displayed for each probability level used.

Figure 6



The experimental designs for the two risk-taking experiments conducted to date are shown in Table 8. The subject groups are males and females. Because the military population used for these experiments yielded very few women using birth control pills, we had to combine the pill and nonpill groups. Subjects were tested only once in Experiment I, but over 4 test days in Experiment II. In Experiment I, the subjects were given extensive practice estimating the actual probability levels for successful crossing of the mine field prior to starting the decision-making phase described above. No such practice was given in Experiment II. In Experiment II, the easiest 20 trials, those with a probability of .90 for success, were eliminated to make the task more difficult.

Table 8

## RISK-TAKING EXPERIMENTS

| EXPERIMENT | SUBJECT GROUPS    | TEST SESSIONS                           | PROBABILITIES OF SUCCESS | TRIALS                  |
|------------|-------------------|-----------------------------------------|--------------------------|-------------------------|
| I          | 1. MALES (N=18)   | 1. PROBABILITY ESTIMATING               | .90                      | 20/LEVEL OF PROBABILITY |
|            | 2. FEMALES (N=18) | 2. DECISION MAKING (1 & 2 SAME DAY)     | .70<br>.50<br>.30<br>.10 |                         |
| II         | 1. MALES (N=9)    | 1. DECISION MAKING                      | .70                      | 20/LEVEL OF PROBABILITY |
|            | 2. FEMALES (N=9)  | 2. DECISION MAKING                      | .50                      |                         |
|            |                   | 3. DECISION MAKING                      | .30                      |                         |
|            |                   | 4. DECISION MAKING (2/DAY; WEEKS 1 & 2) | .10                      |                         |

The men and women did not differ significantly in their abilities to estimate probabilities of success in Phase I of Experiment I, or on their total scores for decision-making in either Experiments I or II.

However, as shown in Table 9, the women tended to take longer than men to make their decisions, particularly for the denser, more difficult levels. This difference was significant ( $p < .025$ ) for those fields with mine densities allowing for a .30 probability of successful crossing.

Table 9

## RISK TAKING

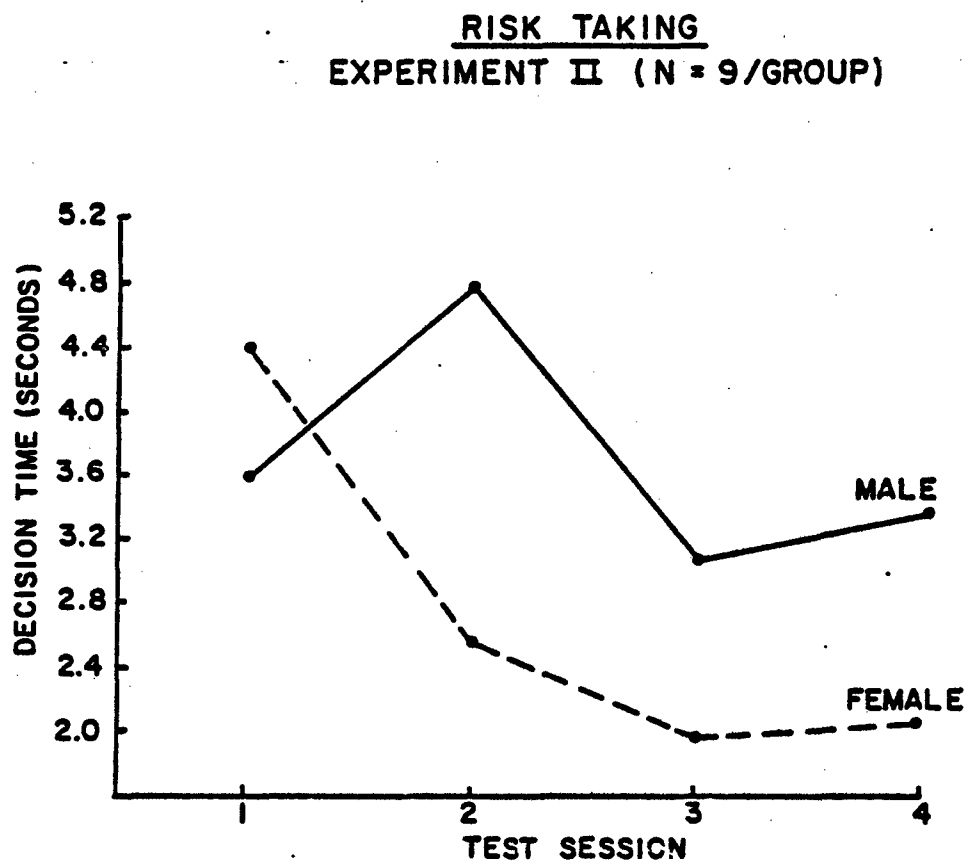
EXPERIMENT I      PHASE II  
MEAN DECISION MAKING TIME (SECONDS)

| GROUP   |    | PROBABILITY OF SUCCESS |      |      |      |      |
|---------|----|------------------------|------|------|------|------|
|         |    | .90                    | .70  | .50  | .30  | .10  |
| MALES   | X  | 1.59                   | 1.84 | 2.54 | 2.56 | 1.67 |
|         | SD | .52                    | .62  | .90  | .87  | .50  |
| FEMALES | X  | 1.34                   | 1.93 | 3.27 | 3.76 | 2.11 |
|         | SD | .46                    | .90  | 2.24 | 2.30 | 1.43 |



Figure 7 shows that in Experiment II, for the .30 probability density fields, a significant interaction occurred over test days. As in Experiment I, the women took longer than men to make their decisions on the first day of testing. However, on days 2-4 of testing, the women took significantly less time to make their decisions. The women appear to have reduced their response time, while the men did not, over the 4 test days. Although this interaction between sex and days was significant only for fields with .30 probability densities, similar patterns occurred for the other probability densities as well in Experiment II.

Figure 7



### Summary and Conclusions

The major findings from our experiments in the areas of auditory thresholds, hand steadiness and risk taking are summarized in Table 10.

Table 10

#### SUMMARY/CONCLUSIONS

|                            | <u>SEX DIFFERENCES</u>                                                                                                                                                                                                                                                                                                                                                                         | <u>MENSTRUAL CYCLE INFLUENCE</u>      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <b>AUDITORY THRESHOLDS</b> | <p>MEN HAD HIGHER THRESHOLDS.</p> <p>DIFFERENCES SMALL; PRACTICAL SIGNIFICANCE DUBIOUS.</p>                                                                                                                                                                                                                                                                                                    | <p>NO CONSISTENT INFLUENCES FOUND</p> |
| <b>HAND STEADINESS</b>     | <p>NON-PILL GROUP SIGNIFICANTLY STEADIER THAN EITHER MEN OR PILL GROUP.</p> <p>PILL GROUP PERFORMED MORE LIKE MEN THAN NON-PILL GROUP.</p> <p>GROUP DIFFERENCES PERSISTED OVER SEVERAL PRACTICE SESSIONS.</p>                                                                                                                                                                                  | <p>NO CONSISTENT INFLUENCES FOUND</p> |
| <b>RISK TAKING</b>         | <p>NO SIGNIFICANT DIFFERENCES IN ABILITY TO ESTIMATE PROBABILITIES OF SUCCESS.</p> <p>NO SIGNIFICANT DIFFERENCES IN TOTAL SCORE FOR DECISION MAKING.</p> <p>IN LOW PROBABILITY OF SUCCESS SITUATIONS, WOMEN INITIALLY TOOK SIGNIFICANTLY LONGER THAN MEN TO MAKE THEIR DECISIONS.</p> <p>IN SUBSEQUENT TEST SESSIONS, WOMEN TOOK SIGNIFICANTLY LESS TIME THAN MEN TO MAKE THEIR DECISIONS.</p> |                                       |

Auditory Thresholds. Although our results show men to have somewhat higher auditory thresholds than women, the differences are small in absolute terms and are within the range of normal individual variation for clinical measurement. At least based on the frequencies tested, there appears to be no military application which would be significantly influenced by the small sex differences demonstrated in our experiments. Any potential application, however, which would involve audition at or above 8000 Hz should be cause for further investigation of possibly large and significant sex differences in hearing thresholds at the higher frequencies.

Hand Steadiness. Our future work in this area will likely involve investigations to determine whether or not the group differences we found are reflected in applied military situations such as the firing of hand-held weapons.

Risk Taking. These data clearly illustrate that one should be very cautious in drawing conclusions regarding male/female performance differences based solely on initial test trials. A very small amount of experience or training can have a dramatic effect on the relative performance of the groups.

Menstrual Influence. None of our findings to date even suggest any significant influence of menstrual factors on female performance. It should be noted, however, that our procedures for determining phases of cycles were dependent on subjects' reports of menstrual events as they remembered them, and that a great deal of variation exists with regard to menstrual cycle length and the timing of events within the cycles. Better estimates of cyclic events, possibly based on actual cyclic hormone levels, could reveal menstrual influences on performance, which might have been undetected in the present context.

If any important or meaningful sex differences in performance abilities are to be found, both the literature and the results of our research to date suggest they are not to be found in the simple, single-trial experiments most often reported. If they exist, it seems most likely that they will be revealed in experimental situations which involve the complexity of reality, repeated measures to overcome the effects of lack of experience or other transient or socially imposed factors, and stress which will test the limits of ability.

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SOME HUMAN DIMENSIONS OF CONTINUOUS LAND COMBAT: 2000 A.D.

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It is, to say the least, difficult to predict the future. Prophecy is most secure when made as a series of Delphic utterances capable of multiple interpretation and of signifying different truths to different listeners. The dimensions and problems of the battlefield are peculiarly difficult to predict. They are the product of the intersection of a series of competing forces that serve to mold and shape that final period of conflict and truth when men resort to arms and meet in battle. These forces are disparate, ranging from technology, training, doctrine and logistics systems to concepts of individuality, patterns of social organization, individual and group perceptions and cohesion, values and ideologies, skills and commitment. Each of these concepts is difficult to extrapolate and predict: their integrated outcome, as expressed in the initial hours or days of battle, is perhaps impossible to imagine with any articulation to reality. What we can do is draw certain basic lessons from the evolution of warfare, and in particular of modern war, during the past century and a half to define both the enduring factors and patterns of change that will bear upon the human aspects of land warfare twenty years from now. Our concerns must be with factors such as time, space, complexity, intensity, cohesiveness and endurance as they apply to individuals and to groups in the context of conventional land warfare.

Time represents the most critical dimensional change projected for the war of the future and its participants. War will lose its temporal plasticity insofar as any future NATO scenario is concerned. In the past, men, whether commanders or riflemen, had time to err. In the future, there will be no time for error nor any margin for error. In a sense, we return to the period of the medieval armored knight in which the initial shock of battle determined its consequences, whether victory, defeat, or stalemate. The human burden of the initial battle will be extended and deepened by the fact that it may well be the determinative battle. The months and years perceived as available in past wars for rebuilding, reconstituting, and restructuring forces, for devising new doctrine, technologies, and training modalities in order to win the "ultimate" victory will no longer be available. Barring a thermonuclear exchange, defeat, stalemate or victory will be proximate.

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Thus, land warfare in the year 2000 will depend upon the forces in being, upon their existing status, abilities, and capacities rather than upon the inherent potential of the western alliance. These forces will be the beneficiaries of a quantum jump in the evolution of land warfare, one, that like all human social evolution, will see organizational demands, weaponry, tasks, and stresses of greater complexity than those that armies have ever had to contend with before. Such a battlefield will require troops not only able to rely upon themselves but committed to reliance upon others. Men who are tightly bonded to one another, able to create new bonds, and to maintain them following widespread disruption and destruction of their tactical units.

One question that we must ask is whether or not present evolutionary tendencies in western society will allow for the existence of such values and behavioral capacities in the armed forces that will exist then. If the concepts of libertarianism and radical individualism that exalt the value of the individual above the group become dominant in western society, can we consider any army in being as viable? The ability of armies to maintain themselves is based upon trust, upon the shared consensual value that each man will do his job and his duty. If society disvalues such a social commitment, the Army will not be a viable fighting force. The assurance of trust, commitment and small group cohesion become a precondition to success in battle. Without a firmly bound force, with strong unit cohesion and equally strong capacities for rebonding survivors to each other in reciprocal trust and reliance, the battle will be lost before its inception.

Let us turn then to the battle itself. Soviet military doctrine envisions intense, concentrated offenses by forces echeloned behind relatively narrow fronts. The expected form of combat will resemble the naval meeting engagement. Troops will fight mounted in self-contained, highly mobile armored units. As a result of technological developments, this combat will be more lethal and far-ranging with respect to target acquisition and ordnance delivery than any previously experienced. The distinction between day and night combat will become blurred. As attacking units lose momentum through attrition, they will be replaced by fresh units to maintain the thrust of the offensive.

To the defenders, such an attack would be continuous in character; as distinguished from classical "pulsed" combat where in substantial or regular periods for rest and recuperation intervene between intense episodes of fire or fire and movement. Night has traditionally brought lulls to the most intense combat situations permitting opportunities for attendance to human needs, rest and at least minimal sleep. Combat conducted under the projected scenario appears to alter significantly the human dimensions of ground warfare.

Continuous operations will represent an intensification of the multiple stresses to which the soldier is exposed on the battlefield. It will involve an equivalent intensification of the multiple stresses faced by command, control and support organizations. The situational stresses of the battle will be almost constant during the period of engagement: unremitting life threat, intense noise, confusion and carnage. The performance and technological demands on all participants will be greater than they have been in the past. There will be far fewer opportunities for relief, rotation, recuperation and reinforcement than in the past.

We know little about the ultimate capabilities of the human organism to perform effectively under such conditions of intense multiple stress prolonged through time. The military requirement for research in the relevant areas of sustained performance, sleep deprivation, fatigue and stress has long been recognized. Prosecution of this requirement by civilian and military scientists has resulted in an extensive body of literature in each area, as well as in attempts to integrate information across disciplinary lines. Despite these efforts, our ability to extrapolate freely from this body of literature to the continuous land combat scenario is limited by important factors.

For obvious ethical and pragmatic reasons, there are wide gaps between combat experience and achievable human research: (1) Laboratory experiments, simulations and studies of field maneuvers cannot impose the real personal hazards of combat. (2) Important variables are often studied in isolation or in easily managed subsets. (3) Intense anxiety and fear are absent. (4) Performance demands are usually submaximal. In a real sense, this body of work represents a "best case." We have, however, some historical data bearing on the effects of extended, intense, pulsed combat on the normal individual. By extrapolation, these data provide us with an outline of some of the problems that will be faced in continuous land combat operations--a "worst case."

Based on observations made particularly during World War II, the doctrine that all men have a psychophysiological "breaking point" was developed. Under this doctrine, the unique multiple stresses of combat are seen as leading inexorably to severe breakdown of behavior requiring withdrawal from combat for rest and therapeutic intervention. The stresses of World War II "continuous combat," i.e., 2-3 pulses of combat a day rather than the 10-12 envisioned in 2000 A.D., were well delineated in the report on combat exhaustion of the Special Commission of Civilian Psychiatrists to the European Theater of Operations:

Continuous combat has meant cumulative stress. Paramount in this stress are the effects of fatigue and hunger, of fear relative to incessant danger, and a series of repeated

narrow escapes, following one another in rapid succession. With no adequate recuperative pauses between repetitive experiences, one's compensatory mechanisms are tried to the limit, especially when fatigue and lack of sleep are coincident. A pattern of adjustment has been maintained marginally, one unequal to a sudden increment or in a qualitative change in the situation. There is left little or no reserve other than to revert to a less organized, less dangerous pattern at a lower level of human functioning. Bartmeier, Kubie, Menninger, et al. "Combat Exhaustion." Journal of Nervous and Mental Diseases, Vol 104, 1946.

Termed combat "fatigue" or "exhaustion," the behavioral breakdown and disorganization described above is an almost absolute end point of prolonged combat. The basic pattern of breakdown was described as being fairly constant in all theaters of war. There were, however, critical differences in the tempo at which breakdown took place. These differences in tempo were seen as being related jointly to the intensity of combat and to the number of battle-incurred casualties sustained by units.

The basic pattern of behavioral breakdown seen in prolonged land combat has been clearly described for World War II. Swank and Merchand, writing in the Archives of Neurology and Psychiatry, Vol 55, 1946, aptly described the phases that characterize behavior in combat. During the first phase of exposure to combat:

The men were in a constant state of fluctuating fear. They had urinary frequency and urgency, intense thirst, anorexia, and even a fear of eating, a fear of being left alone or of exposing themselves, even to defecate, and an increase in sweating. During acute incidents, palpitation, an increase in sweating, vasomotor instability and the overt signs of fear, such as tremulousness, became more or less universal. Many men became selfish to the point that they took food, blankets, entrenching tools and similar articles from others for their own use. This soon stopped, however, when they realized that individual survival was dependent on survival of the group, and cooperation, to the point of self deprivation, continued throughout the ensuing period of combat.

During phase two, men became adapted to battle, usually within five to seven days. Most men had become battle wise and further slow improvement ensued with the soldier reaching peak efficiency at about D + 21 days. Peak efficiency was maintained for about a week and then a gradual but steady decline set in.



During phase three, the first symptoms of combat exhaustion appeared at approximately D + 25 days:

This was an abnormal fatiguability, which could no longer be relieved by periods of rest up to forty-eight hours. The fear reactions, so noticeable early in combat, and so successfully controlled during the period of high efficiency in battle, reappeared more frequently and were quelled with less success. Unconsciously, the soldier lost confidence in himself. This was clearly shown in his reactions toward various battle stimuli. He began to lose the fine points of discrimination in which he had prided himself. He no longer could tell the difference between friendly and enemy artillery and mortar fire and referred to all as the fabulous "eight-eight."

Hanson, who wrote the classic description of combat exhaustion in, "The Factor of Fatigue in the Neuroses of Combat," Army Medical Bulletin Supplement No. 9, Nov. 1949, felt that the most important factor in the generation of this syndrome was sleep deprivation:

Their faces were expressionless, their eyes blank and unseeing, and they tended to go to sleep wherever they were. The sick, injured, lightly wounded, and psychiatric cases were usually indistinguishable on the basis of their appearance. Even casual observation made it evident that these men were fatigued to the point of exhaustion. Most important of the factors that produced this marked fatigue was lack of sleep. Under almost all combat conditions the infantryman gets too little sleep. The conditions of his existence - the almost continuous shelling, the strange night noises, flares, sentry and patrol duties, rain, snow, cold, heat, insects, and the ever present threat of the enemy - conspire to make his sleep at best intermittent and scanty. In spite of this lack of sleep he must undergo long periods of severe exertion, more often than not on a diet that is at best deficient in calories. Often the food is there for him, but he either cannot carry enough of it with him or is too frightened to eat the proper amount. Sometimes the type available has become distasteful through monotony.

All commentators, in discussing combat exhaustion, take great pains to point out that it is the average, normal soldier being discussed and not the individual with predisposing neurotic tendencies. As Swank puts it, "One thing alone seems to be certain: Practically all infantry soldiers suffer from a neurotic reaction if they are subjected to the stress of modern combat continuously and long enough."

All World War II studies and analyses of combat behavioral responses and exhaustion agree that there is a profound interaction between:

- a. length of time in combat;
- b. number of casualties in the unit; and
- c. intensity of the combat.

The interaction appears to take the form: The greater the number of casualties and the longer the time in combat and the more intense the combat, the faster the behavioral decrements and symptoms of combat exhaustion will develop. The mathematical properties of this relationship are not known at present. The impact is apparently qualitatively greater dependent upon the levels of indirect fire taken by troops. For example, large numbers of psychiatric casualties were rapidly generated at Anzio and Okinawa as Belote and Belote reported in Typhoon of Steel:

By no means all of the combat casualties on Okinawa suffered from the tearing shrapnel of enemy shell or mortar, or from the ripping jolt of a Nambu or Arisaka bullet. Many--more than in any other campaign of the Pacific War--suffered from psychoneuroses, or, as it was more popularly called, from "combat fatigue." The reason, the doctors believed, was General Ushijima's abundance of artillery and ammunition. As Major Eugene Alexander, a 96th Division doctor, put it, "You know, it's tough...Like the fellow we had in here the other day who saw a mortar shell drop 50 yards away, then another 40 yards away, another 30, and so on until finally one landed in the next foxhole and spilled someone's brains all over him." Plus the normal strain of combat, the constant threat of death from enemy artillery was too much for many of the soldiers and marines; they "cracked up" and had to be evacuated. They were not cowards; some were veterans of Leyte and earlier Pacific campaigns. Okinawa was simply too much for their nervous systems. One observer called them the "walking dead" because of their yellowish pallor.

That Okinawa would produce an unusual number of psychoneurosis cases first became apparent between April 9 and 13 at Kakazu Ridge. By April 15 both the 96th and 7th divisions had established rest camps to deal with these casualties, about forty percent of which could be returned to the line. By the end of April the 10th Army had to reserve for them one entire field hospital.

The relevance of the factors outlined above for the maintenance of combat capacity among soldiers, who will be involved in continuous combat operations in response to constant echeloned attack from a manpower and equipment rich aggressor, is apparent. Current commentators on the continuous land combat scenario are generally agreed that combat intensity, time in combat and number of casualties would increase significantly over levels previously experienced should this scenario become a reality.

The experience of the First Army during the Normandy campaign in 1944 suggests a fixed ratio of one Killed-In-Action (KIA) to five Wounded-In-Action (WIA) to one Neuro-Psychiatric (NP) casualty during periods of intense combat. Figures from other theaters and Army areas where similar conditions prevailed during World War II and Korea indicate equivalent experiences. The relative constancy of this ratio suggests the possibility of developing a more satisfying quantitative historiographic model that would permit better extrapolations to the continuous land combat environment. Pursuit of such a model would be difficult, interdisciplinary undertaking involving a variety of foreseeable pitfalls and an unknown number of hidden ones.

For example, some proportion of the KIA and WIA casualties should properly be tallied as NP casualties. Soldiers become casualties because they are in the wrong place at the wrong time, or because they make mistakes. About the former, little can be said other than to observe that the deployment of modern weapons technology has, and will continue to increase the spatial and temporal density of lethal places on the battlefield. Mistakes, on the other hand, can be attributed either to failures in training and preparation, or to failure in performance. In the context of the present discussion, failures in performance are of central concern.

World War II and Korea represented a relatively stable period in the technology of land combat. As a consequence, the performance demands on soldiers were also relatively constant. Modern weaponry, now coming into inventory, or planned for the time period under consideration, will increase the cognitive performance demands on soldiers. The performance demand characteristics of these weapons systems will be high with respect to their effective utilization, as well as to avoidance of the consequences of their utilization by the enemy. We do know from the scientific literature that cognitive function, especially that driven by individual initiative, will be an early casualty of the multiple stressors of continuous combat.

In high lethality environments, an operationally significant mistake, however small it may appear in terms of a statistically significant performance decrement, is one that creates casualties. This apparently obvious point is most often ignored by those engaged in studies of performance, stress and fatigue. The use of statistical

models developed for analyzing agricultural yields is inappropriate to situations in which relatively rare behavioral events concatenate with circumstances to produce operationally significant consequences. A more appropriate analytic model is found in industrial and aviation accident investigation. Concepts such as "operator error" and "pilot error" provides a better model of our concern with the impact of cognitive deficits on casualty production.

We are suggesting that the continuous combat environment may prove to be optimal with respect to the production of such casualties. High technology force multipliers that depend on well-integrated nervous systems for successful operation could, in this environment, become casualty multipliers. Human errors in Command/Control/Communications (C3) systems are likely to become prevalent even early in the battle under the presence of high information loads, the need to divide attention among multiple tasks and cognizance of the criticality of decisions. Similar pressures will bear on soldiers in all combat elements. Our historical review has concentrated on the factors that influenced the production of psychiatric combat casualties in the past. We suggest that, in the heated environment of future continuous land combat, the opportunity to survive in battle long enough to become a frank psychiatric casualty may signal extraordinary combat performance. The casualty toll during phase one of the battle can reasonably be expected to be very high and the opening engagements may be critical determinants of ultimate success in battle.

In discussing the historical impact of the number of casualties suffered by a unit on the production of frank psychiatric casualties, we have argued for the existence of a number of occult psychiatric casualties that are normally accounted among the KIA and WIA. The next imponderable we must address is the impact of all three classes of casualty on those remaining soldiers who must continue to perform in battle. We suggest that the consequences of casualty production in fluid mounted, meeting battles may be quite different from those experienced historically in dismounted, relatively static battles.

Unless a mobile combat unit is prepared to disengage to permit casualty evacuation, it must carry its casualties with it. If the unit disengages to permit casualty evacuation, its vulnerability will increase dramatically. The availability of emergency medical services, the conditions under which they are practiced, and the certainty of evacuation will be drastically altered in the continuous land combat environment. Also changed will be the locus and availability of the definitive medical care necessary to stabilize the condition of the wounded. In the situation presented by the fluid meeting battle, such care must be located further to the rear and be more difficult to reach than has been the case in recent conflicts.

Here, we are concerned less with the fate of the wounded themselves than with the impact of that fate upon their comrades. This impact will be felt both in terms of immediate experience and in terms of the future expectations of the survivors. germane to this discussion is the experience of the Israeli Defense Forces during the 1973 Yom Kippur War. This war, fought at least in part in accordance with the continuous land combat scenario, did not last long enough to produce classical combat exhaustion casualties. The Israelis report, for example, that sleep deprivation was not a significant factor. It did produce an unexpectedly high proportion of psychiatric casualties that were classified as suffering from "combat reactions," and the incidence of such casualties was highest in armored units. Interpretation of these data as supporting a qualitative difference in the psychological impact of modern armored warfare must be made with caution. Since these units experienced the most intense combat of the war, the role of casualty numbers, per se, in the production of psychiatric disability is unclear. It is this sort of complexity that an historiographic analysis might conceivably unravel.

The 1973 Yom Kippur War is often viewed as the paradigm for future land warfare. In that short series of battles, human limits were reached more rapidly than in the past as battle reached and was sustained at levels of intensity seldom seen before. During the brief three week war, 10% of all Israeli casualties were psychiatric in nature. The "combat reaction," as a response to acute situational stress, paralleled the combat exhaustion syndrome of World War II in its incapacitating effect. We must emphasize that the combat reaction syndrome required much less time to develop and manifest itself than was the case in World War II. The descriptions of both syndromes are substantially the same.

Men, as individuals and in groups, are the ultimate locus of ground warfare. The battles of the Yom Kippur War underline the centrality of this principle that was apprehended in the two world wars and Korea. If, in our fascination with technology and the complexities of weapons evolution, we forget the centrality of man as individual and group member, we do so at our peril. Men, as they are defined by themselves and by others, as they are able to accept and endure the weight of battle on their minds and flesh, will be the limiting factor in the ground warfare of the year 2000.

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MEETING THE CHEMICAL THREAT  
PSYCHIATRIC CASUALTIES IN A CHEMICAL ENVIRONMENT

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ABSTRACT

If the modern battlefield includes the use of chemical weapons, many new difficulties will arise in the provision of health care, particularly mental health care. The chemical threat may be viewed from both a historical and modern point of view. The status of antidote research is of great concern. Finally the peculiar psychiatric problems which might be foreseen in a chemical environment will be presented. These problems arise from stress reactions, high or low level exposures to anticholinesterases, and high or low level exposures to anticholinergic (antidote) compounds.

INTRODUCTION

The expenditures for protective chemical gear for the US Army has increased 300% from 1969 to the current fiscal year even when measured in constant dollars (Meselson and Robinson, 1980). Why has this happened? What is the perceived threat? What is the impact on the individual soldier? What about problems in the delivery of health care?

In order to properly develop the background of the threat a brief examination of past usage of chemicals in war would be helpful. Joy (1979) defines chemical warfare to include any lethal or damaging effects to men and equipment produced by chemicals, flames, smokes, or obscurants. Its use on the battlefield dates from the Peloponnesian War, in the form of a bellows used to blow smoke from burning pitch across embattlements. The medical community has always considered the treatment of "contaminated" wounds as one of its responsibilities, considering the earliest bullet wounds to be contaminated or infectious, and treating them with cautery. As long as chemicals have been used, though, their effectiveness has been debated.

For example, during the Crimean War a British military man with the unlikely name of Thomas Playfair advocated the use of cyanide bombs. In his words, they would "lessen the suffering of combatants." His advice was ignored and the British suffered the usual 50% casualties in storming fixed fortifications (Joy, 1979).

In the late 19th century, with the development of chemical fertilizers and aniline dyes the chemical industry, especially in Germany, was ready to mass produce chemicals and was moving rapidly to the use of phosphorus in producing more toxic pesticides. In fact, so rapid was this development that the possibilities of modern chemical warfare were foreseen by 1899. An international conference was convened at the Hague and Alfred Thayer Mahan, the naval historian, represented the U.S. Nothing was resolved at that conference.

Thus WWI began with no substantive agreements on the control and use of CW in force. By 1915 there resulted a stalemate between German and Allied forces on a wide front. The time for chemicals had come. At Ypres on 22 April 1915 (at approximately 4:15 PM) "a strange cloud of greenish tint arose from the German lines." The cloud turned out to be a highly toxic chlorine gas and resulted in a long break in the Allied lines. The Germans did not follow up this breakthrough, therefore it is of little military significance. The Allies readily responded with effective defensive measures and a few months later the British introduced phosgene. At that time the main effect of "gas" was thought to be as a threat to the morale of troops in the trenches and the populace back home (Prentiss, 1937).

The use of chemicals quickly escalated. On 12 July 1917 the Germans introduced mustard to the battlefield and quickly produced 20,000 casualties. These casualties primarily showed eye injuries, they were virtually blinded. This agent was persistent, not noticeable, and was both a lung and skin irritant. It required a fully protected soldier. For the first time the question was asked "How effectively will the soldier function when burdened with so much protective gear?"

Other concerns developed. Great burdens were placed on the Army's ability to provide medical care. Although only 2% of "gas" injuries were fatal during WWI, medical support was taxed in two ways. For example, in one case where 281 soldiers were admitted to a field hospital (third echelon of medical care), only 90 of the cases were true gas casualties. The rest were made up of malingerers, host misdiagnoses, and/or "gas mania" in green troops (Joy, 1979). Additionally, not only is there a mass casualty situation but also the requirements for medical care were extensive. Table 1 indicated the duration of hospitalization for WWI "gas" cases.

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Since 31% of "other" injuries were fatal during WWI we see that CW: (a) doesn't kill many troops, (b) places a great burden on the supply system, and (c) ties up medical personnel.

It is important also to note that the WWI experience was particularly devastating to the Warsaw Pact forces--e.g., the Russian Army experienced the

greatest number of chemical casualties (475,000), the greatest number of deaths due to chemical agents (56,000), and the highest proportion of fatalities to injuries. Thus in postulating a European scenario which requires that we maximize fire and maneuver, cover and concealed arms, and continuous land warfare, the Warsaw Pact is thought to envision CW as having four useful effects on a European ground war. CW will: (a) generate mass casualties, (b) stop NATO operations, (c) force NATO troops into a debilitating posture, and (d) deny use of key terrain, esp. highways and airfields (Welch, 1979).

A survey of current literature reveals Warsaw Pact superiority in capacity to use or defend against CW weapons (Hoerber and Douglas, 1979; Meselson and Robinson, 1980; Time, 1980) and also indicates the additional effectiveness these weapons can introduce into the modern battlefield.

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Table 2 indicates the additional effectiveness nerve agent (NA) shells present over conventional artillery shells on the modern battlefield.

Three actions are recommended vis-a-vis the threat of Warsaw Pact chemical superiority: (1) detailed analysis and evaluation of total Warsaw Pact CW offensive capabilities and employment strategies, (2) test, analysis, and evaluation efforts should be undertaken to understand the impact of different dose level exposures on the operation and effectiveness of military missions, and (3) we should rethink the problem of deterrence and response to the use of CW in a chemical conflict.

Meselson et al (1980) advise that high levels of chemical defense raise the scale of CW preparation needed to constitute a major military threat, thus enhancing the effectiveness of verification measures in disarmament treaties.

What is the specific nature of the threat we are required to defend against? Table 3 lists the categories of CW agents which are purported threats and known to be in the arsenal of the Warsaw Pact. These agents are characterized in terms of class of action and persistence. Persistent agents are those which remain in the environment for long periods of time and continue to present a hazard either in the form of a vapor or a liquid. The soldier is exposed to these agents in a number of ways--inhalation, cutaneous contact, or ingestion. The mode of exposure interacts with the amount of agent to determine not only the severity of the signs but also the order in which they appear. Table 4 summarizes the signs and symptoms of NA poisoning. However, symptoms of poisoning may be insidious, as is the case with mustard. Toxic concentrations of this compound are minute, its persistence is legendary, and its symptoms take four or more hours to appear.



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The nerve agents represent a new and more serious threat than CW agents employed in past conflicts. Although there are specific treatment regiments, treatment of NA casualties is likely to be performed in a mass casualty situation. Table 5 depicts the AMEDD casualty treatment and evacuation system. Since all areas up to 150 km are within range of CW delivery systems and CSH and Evacuation Hospitals are tied to airfields, these medical facilities are likely targets for CW attack.

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Specific treatments are available, e.g., in the case of nerve or incapacitating agents. However they are not antidotes. In the case of NA poisoning atropine blocks and decreases excessive Ach in the body, thus blocking many signs and symptoms; however, it does not reactivate inhibited acetylcholinesterase (AChE). A similar statement may be made about the use of physostigmine to treat BZ intoxication. The progress of antidote research has been held up by failure to describe the fundamental action of, say, GD. Such questions as, "Where does GD go in the body after it is detoxified?" or, "Are all the byproducts of degradation of GD innocuous?" remain to be answered.

At one point in their paper Meselson et al (1980) argued that even at the current levels of prophylaxis and therapy it is doubtful that current antidotes would significantly reduce casualties "in the sense of soldiers put out of action". They do concede that these measures will save lives and bolster morale.

Let us examine the meaning of this statement--What are the types of casualty we can expect to see in a chemical environment? Table 6 lists the many types of casualty to be found, the stress casualties will be discussed in a later talk.

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#### PSYCHIATRIC CASUALTIES

If you'll bear with me, I'd like to make a transformation of the above table to a graph which is limited to psychiatric casualties in two dimensions--those adverse drug reactions produced by NA, those produced by

antidotes. A second dimension will be introduced, that of dose level (simply dichotomized into high or low doses). Figure 1 represents the classification scheme.

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Insert Figure 1 about here  
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Are there separate clinical entities which can be derived from this matrix? Let's take a look at the relevant literature. Using atropine as the current antidote and as a representative of the family of anticholinergics, let us examine the effects of atropine use.

Atropine may be used prematurely by the soldier for a number of reasons: (1) he may decide to take it prophylactically, (2) he may over-react and use all three 2 mg atropine injectors carried in his mask case, or (3) it is possible he may use it as a substance of abuse.

Historically atropine was not considered to have abuse potential; however, Shervette, Schyldlower, Lampe, and Fearnow (1979) have reported otherwise. Shervette et al reported on 29 adolescents who abused Jimson "loco" weed and found the following: 10 seeds of the plants contained 1 mg of atropine, 90% of Ss showed hallucinations, 70% of Ss were repeated admissions. Some combative behavior was observed. Mydriasis, dry mucous membranes, tachycardia and flushness were commonly present. No serious complications occurred and hospitalization averaged 1.8 days. All Ss recovered fully.

Headley (1980) summarized data from four papers in which the equivalent of 2 AtroPens or less were administered. He reported such central nervous signs as headache and dose-related dizziness and lack of coordination. Table 7 is taken from a standard pharmacology text, Goodman and Gilman (1970) and cites atropine effects at different doses. If we take 6 mg atropine to be roughly equivalent to 85 ug/kg then the paper by Ketchum, Sidell, Crowell, Agajanian, and Hayes (1973) is directly related to this question. These authors reported that the hallucinations, confusion, and incoherence produced by high doses of anticholinergics would best be classified as simple delirium, rather than as "psychotomimetic" or "psychedelic" syndromes. The term delirium was expressly defined to include defects in grasp, failure in sustained mentation, fear or anxious suspicion, misinterpretations, hallucinosis, and restlessness (Ketchum et al, 1973).

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The effects of anticholinergics are known to be enhanced by sleep loss (Safer, 1970). Also, after high doses of anticholinergics, Ss showed both changes in EEG and behavioral changes. The onset, duration, and termination of the behavioral effects parallel the appearance, persistence, and disappearance of slow EEG activity. These effects are thought to persist for 12-16 hours or more, or in terms of Medevac, possibly until the CSH.

Low doses of anticholinergics do not seem to present noticeable, long-lasting signs. So, following the recommendations of Hoeber et al (1979), we look next to those behavioral effects produced by the anticholinesterases (NA). I have arbitrarily divided these effects into high/low dose effects, the criterion for such a dichotomy probably being the rate at which red blood cell cholinesterase (RBC) is depleted in S. By this I mean that if the rate of cholinesterase depletion is slow, a behavioral tolerance may develop. If it is rapid behavioral effects may be noticeable.

Whereas there is little evidence of the use of NA (specifically) in modern warfare we do have data on anticholinesterase poisoning arising from its use in agriculture (also accidental exposures of industrial workers and animal data). An article by Hayes, Van Der Westhuizer, and Gelfand (1978) reported that in 105 cases of "severe" exposure to organophosphate (OP) pesticides (compounds similar in action to NA) the prominent symptoms were vomiting, abdominal pain, pin-point pupils, respiratory distress, and other "muscarinic" signs. The authors also reported that mortality can be reduced to less than 15% through rapid diagnosis and treatment. The treatment was atropine and obidoxime or 2-PAMCl.

That surviving patients require extensive medical support is substantiated by Walsh, Molloy, and Shanahan (1979) who reported on a patient who had ingested 23g of Malathion. Whereas atropine therapy (28 mg daily for 6 days) was successful, 2-PAMCl did add to efficacy. A significant component of the therapy was IPPV and a nursing staff which was expert in long-term care of patients on respirators. Severe muscarinic signs continued until the 12th day after ingestion. Again, note the problems for combat medical care.

On the basis of studies like these it was determined that severe intoxication by OPs leads to psychiatric sequelae. Wadia, Sadagopau, Amin, and Sardesai (1974) reported that disturbances in consciousness appeared in 10% of exposed agricultural workers. However, these authors felt that such signs as restlessness, emotional lability, nightmares, and confused speech occurred, not as a result of OP poisoning, but as a result of atropine toxicity (which may occur with as little as 6.0 mg in PO exposed patients).

Holmes and Gaon (1956) summarized data on over 600 accidental exposures to OP pesticides. Some severe exposure cases showed an inability to remember street and phone numbers and were unable to recognize old friends. While they could read accurately they were unable to remember what they had read. In summary these authors described the most noticeable features of personality change as (a) forgetfulness and (b) irritability.

Gershon and Shaw (1961) reported on 16 patients chronically exposed to OP pesticides from 1½ to 10 years. Seven of these Ss were reported to develop depression, all showed lapses of memory and concentration. Five were diagnosed as schizophrenic. The authors also concluded that depressive psychiatric disorders were more common in fruit growing areas where OP pesticides were sprayed.

Sidell (1974) reported on four patients accidentally exposed to Sarin and one to Soman. The two who showed the greatest intoxication (one to each compound) had psychiatric problems lasting for several weeks (including sleep disturbances). Since scopolamine ameliorated the mental condition in one patient to whom it was administered, these sequelae were the direct result of excess cholinergic stimulation. Also, the time course of recovery of pupil's ability to dilate was followed in three Ss, this recovery was much the same as that for plasma ChE: initially rapid, with about 2/3 of activity restored in 2 weeks. However, recovery was not completed for several months.

In cases of mild (or low dose) OP exposure some experimental work has been done to go with the clinical data. Investigating the role of the cholinergic system in depressive illness, Davis, Berger, Hollister, and Barchas (1978) reported that administration of DFP to hypomanic Ss produced depression. It did so also in normal Ss (acute low dose exposure). Atropine partially counteracted this effect. The reversible cholinesterase inhibitor, physostigmine, has also been reported to cause depression in some individuals. This effect was especially profound following administration of physostigmine to intermittent marijuana users.

Clinical studies of chronic low dose exposure have yielded mixed results. For example, Wicker, Williams, Bradley, and Guthrie (1979) monitored RBC and plasma ChE in cotton scouts. Although group ChEs were significantly depressed, at times to below 50% of pre-exposure levels, no symptoms of OP poisoning were confirmed. In fact, only a few of the most depressed-ChE Ss complained of not feeling well. The authors suggested that in the dense foliage the primary exposure was to the legs and hips of the scouts, with clothing acting as an occlusive dressing.

The symptoms brought about by low dose exposures are insidious. Richter, Cohen, Luria, Schoenberg, Weisenberg, and Gordon (1980) in a study of Israeli crop dusters reported that early symptoms of parathion poisoning (sweating, nausea, dizziness, and weakness) were indistinguishable from those associated with heat exhaustion. These symptoms, along with blurred vision, occurred before cholinesterase changes when agricultural pilots and ground crews were exposed to parathion levels greater than .005 mg/kg daily.

There is a lack of agreement as to how persistent the psychological changes will be following OP exposure. Grob, Harvey, Langworthy, and Lilienthal (1947) administered DFP daily to volunteers and found symptomatology of insomnia, excessive dreaming, emotional lability, increased libido, paresthesia, visual hallucinations and tremor, along with EEG changes. This was the first such report about EEG. However, such symptomatology usually disappeared shortly after cessation of exposure and EEG returns to normal in 2 weeks.

A group at University Hospitals, Iowa City, Iowa has published extensively on chronic OP exposures. Using a battery of neuropsychological tests including RT, visual memory, language, and paper-and-pencil measures of anxiety and depression, these investigators have generally reported no changes in neuropsychological performance due to OP exposure (Rodnitzky, Levin, and Mick, 1975; Rodnitzky, Levin, and Morgan, 1978; Levin, Rodnitzky, and Mick, 1976). This group has postulated a relative resistance of higher NS functions to mild OP exposure, although Levin et al (1976) did report that commercial pesticide sprayers showed elevated levels of anxiety when compared to matched control groups. They saw no evidence of depressive illness.

When we look at earlier studies of occupational exposures (with less well-protected workers or more toxic agents), a different picture emerges. For example, whereas Barnes (1961), Bildstrup (1961), Bowers, Goodman and Sim (1964) and Stoller, Krupinski, Christophers, and Blanks (1965) questioned the findings of deficits on methodological grounds, they all agreed that subtle behavioral changes, such as impaired memory and concentration, appeared with regularity in exposed men. Tabershaw and Cooper (1966) reported histories of memory difficulty, depression and emotional stability lasting up to six months following low level chronic exposure in 38% of cases studied.

What is the true picture? If we take the EEG research as a focal point I think the data are fairly clear.

Metcalf and Holmes (1969) suggested that OP exposures might lead to chronic EEG changes. They reported that workers with past histories of both OP and chlorinated hydrocarbon exposures, but with no recent exposures had abnormal EEG records and showed "disturbed" memory and attentive processes.

Duffy, Burchfiel, Bartels, Gaon, and Sim (1978) reported even more persistent aftereffects. In their investigations they first reported that in monkeys a single symptomatic exposure or series of subclinical exposures to Sarin produced EEG changes lasting up to one year. In humans, Duffy et al (1978) reported that workers with histories of exposure to Sarin had waking and sleeping EEGs different from those of workers with no exposure history. These differences were still noted one year after the last prior exposure.

Finally, in an unpublished doctoral dissertation McKee (1970) administered the WAIS to workers known to have been exposed to OP (in this case, Sarin) and found a "general withdrawal of interest, a general lessening of intellectual efficiency, and a tendency toward increased carefulness similar to that detected by Bowers et al (1964). These results suggested that chronic OP exposures contributes to an increase in compensatory maneuvers and to decrease in verbal and interpersonal responsiveness.

In summary, modern chemical warfare presents serious medical problems, with the possible appearance of three additional psychiatric syndromes adding to the other (historical) burdens placed on medical care. These syndromes are atropine-induced "delirium," agent produced depressive psychiatric disorders, or, in the case of chronic low dose exposures, a generalized memory and intellectual slowdown with anxiety.

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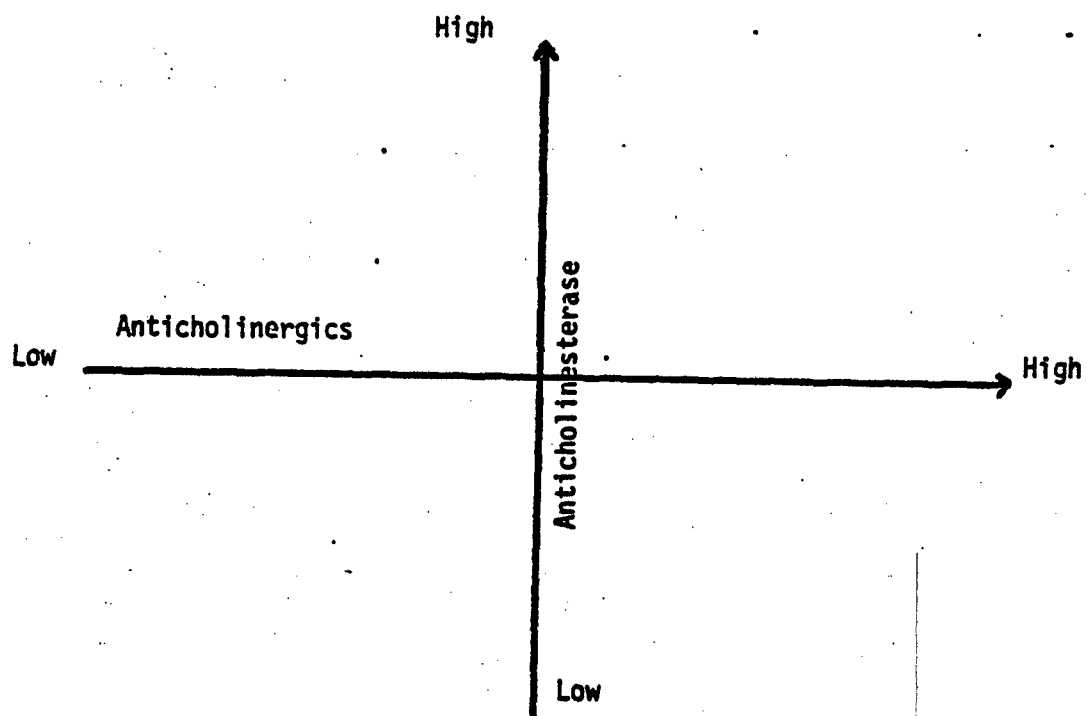


Figure 1. Classification scheme for potential chemical psychiatric casualties.

TABLE 1

Burdens On Medical Care: Hospitalization Due To "Gas" Injuries, WWI

| Gas      | Casualties | Mean Days Hospitalized |
|----------|------------|------------------------|
| Unknown  | 33,500     | 37                     |
| Phosgene | 6,500      | 46                     |
| Chlorine | 1,800      | 60                     |
| Mustard  | 27,000     | 46                     |

Number of Volleys Necessary to Produce 30% Casualties on a Platoon-sized Target at a Distance of 10 km (cool, dry day)

TABLE 2

|                                   | Nonchemical Shells              |                               | Nerve-Gas Shell (GB)         |                                                                        |                                                                |                                                                |
|-----------------------------------|---------------------------------|-------------------------------|------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|
|                                   | Fragmentation Submunition Shell | Airburst High Explosive Shell | Target Personnel Unprotected | Target Personnel Carrying But Not Wearing Gas Masks at Start of Attack | Target Personnel Wearing Gas Masks But Not Protective Clothing | Target Personnel Wearing Gas Masks and Protective Clothing     |
| Target Personnel On The Attack    | 1                               | 4                             | 1                            | 2                                                                      | 74                                                             | (Casualty Level Exceeding A Few Percent Would Be Unattainable) |
| Target Personnel On The Defensive | 4                               | 51                            | 1                            | 66                                                                     | 74                                                             |                                                                |

TABLE 3

## Catalogue of Putative Chemical Agents

| Type                              | Agent                                | Persistence |
|-----------------------------------|--------------------------------------|-------------|
| Nerve                             | GA (TABUN)                           | NP          |
|                                   | GB (SARIN)                           | NP          |
|                                   | GD (SOMAN)                           | NP          |
|                                   | VX                                   | P           |
| Blister                           | HD (SULPHUR MUSTARD)                 | P           |
|                                   | HNI, HN7, NN3<br>(NITROGEN MUSTARDS) | P           |
| Choking (Lung<br>Damaging Agents) | CG (PHOSGENE)                        | NP          |
| Blood Agents                      | AC (HYDROCYANIC ACID)                | NP          |
|                                   | CK (CYANOGEN CHLORIDE)               | NP          |
| Incapacitating<br>Agents          | BZ<br>LSD                            | NP          |

TABLE 4

Signs and Symptoms of Nerve Agent Poisoning

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Inhalation (Minutes)

Low Concentration

- Salivation, Rhinorrhea
- Miosis, Dimmed Vision, Accomodation
- Headache

Moderate Concentrations

- Salivation, Rhinorrhea, Trachebroncho Congestion
- Bronchoconstriction
- Miosis, Poor Night Vision

Large Concentrations

- Nausea, Vomiting, Defecation Incontinence
  - Altered State of Consciousness
  - Convulsions, Fasciculations, Weakness
  - Respiratory Impairments
-

TABLE 5

## U.S. Army Medical Department Treatment &amp; Evacuation System

| Rearward Evacuation Flow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Evacuation Means                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Level of Health Service Support                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div data-bbox="254 771 320 806">FEBA</div> <div data-bbox="502 771 617 814">Aidman</div> <div data-bbox="485 827 617 892">Aid Station</div> <div data-bbox="254 892 353 922">5-10KM</div> <div data-bbox="254 944 353 974">30-40KM</div> <div data-bbox="485 914 617 978">Clearing Station</div> <div data-bbox="254 1000 337 1030">60 KM</div> <div data-bbox="386 1000 584 1065">Mobile Army Surgical Hosp</div> <div data-bbox="254 1086 337 1116">80 KM</div> <div data-bbox="551 1086 683 1172">Combat Support Hospital</div> <div data-bbox="254 1194 337 1224">150 KM</div> <div data-bbox="485 1194 650 1259">Evacuation Hospital</div> <div data-bbox="518 1280 650 1345">General Hospital</div> | <div data-bbox="766 784 865 814">Walking</div> <div data-bbox="766 849 931 879">Litterbearer</div> <div data-bbox="766 901 981 931">Ground Ambulance</div> <div data-bbox="766 952 948 983">Air Ambulance</div> <div data-bbox="766 1004 981 1034">Ground Ambulance</div> <div data-bbox="766 1034 948 1065">Air Ambulance</div> <div data-bbox="766 1086 981 1116">Ground Ambulance</div> <div data-bbox="766 1138 948 1168">Air Ambulance</div> <div data-bbox="766 1190 948 1220">USAF Aircraft</div> <div data-bbox="766 1241 1014 1306">USAF Aircraft<br/>USN Surface Vessel</div> | <div data-bbox="1096 784 1163 814">Unit</div> <div data-bbox="1096 1004 1212 1034">Division</div> <div data-bbox="1096 1086 1163 1116">Corps</div> <div data-bbox="1096 1241 1163 1272">COMMZ</div> |

TABLE 6

Casualty Types in a Chemical Environment

- 
1. Pure chemical casualty
  2. Pure conventional casualty
  3. Mixed chemical and conventional casualty
  4. Psychological stress casualty
  5. Physiological stress casualty
  6. Self-inflicted wounds (may include atropine use)
  7. Adverse drug (chemical agent) reactions
-

TABLE 7

## Effects of Atropine at Various Doses in Man

| Dose              | Effects                                                                                                                                                                                           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.5 mg            | Slight cardiac slowing; some dryness of mouth; inhibition of sweating.                                                                                                                            |
| 1.0 mg            | Definite dryness of mouth; thirst; acceleration of heart, sometimes preceded by slowing; mild dilatation of pupil.                                                                                |
| 2.0 mg            | Rapid heart rate; palpitation; marked dryness of mouth; dilated pupils; some blurring of near vision.                                                                                             |
| 5.0 mg            | All of above marked; speech disturbed; difficulty in swallowing; regressness and fatigue; headache; dry, hot skin; difficulty in micturition.                                                     |
| 10.0 mg and above | Above symptoms more marked; pulse rapid and weak; iris practically obliterated, vision very blurred; skin flushed, hot, dry, and scarlet; ataxia restlessness, hallucinations and delirium; coma. |





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PSYCHIATRIC CASUALTIES IN FUTURE CONFLICTS:  
ESTIMATES, MANAGEMENT AND TREATMENT

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ABSTRACT

Presentation of the combat effectiveness continuum and the conceptualizations of the psychiatric casualty as a problem of combat ineffectiveness. Discussion of the manifest forms of psychiatric casualty which we can expect and estimates of the number of psychiatric casualties to be expected in type corps, division, brigade and battalion. Suggested models for organizing and utilizing mental health resources to manage psychiatric casualties and procedures to return the maximum number to duty in the minimum time.

INTRODUCTION

I want to talk briefly about three topics: first, what do we mean by psychiatric casualty; second, what are some reasoned estimates of numbers of psychiatric casualties in an intensive, continuous battlefield environment; and third, some thoughts on the organization of mental health resources in a division and their activities in preventing, managing and treating psychiatric casualties.

THE PSYCHIATRIC CASUALTY

Psychiatric casualty refers to a soldier who becomes ineffective in the combat role for reasons other than wound, trauma, organic disease or ineptitude. COL (Ret) Glass's succinct definition of the psychiatric casualty states: "failure in battle role (has) to be manifested by symptoms or behavior acceptable to the combat reference group as representing an inability rather than an unwillingness to function" (Glass, 1973). I would further add that, if we are to be successful in getting ourselves and command to effectively prevent and manage psychiatric casualties, our conceptualization must be pragmatic and mission oriented. Thus, rather than considering the psychiatric casualty as a disease entity, it is more useful to consider that psychiatric casualty refers to a variety of forms of combat ineffectiveness with varying organic, psychologic, social,

cognitive, motivational and political components. In a previous paper (Rath, 1980) I used the term "syndromes" but have given that up as too laden with the disease connotation. The term "manifest forms" seems much less likely to evoke imagery of illness or badness.

The continuum of combat effectiveness-ineffectiveness (Figure 1) suggests that there is no one discrete psychiatric casualty manifest form with predictable antecedents, precise course and inevitable outcome. Rather, the continuum concept suggests that there are a variety of manifest forms with some overlap of antecedents, causal factors, presenting problems and sequelae. The continuum concept reflects our interest not just in the quantity of functioning soldiers but also in the quality of their functioning; one can't be partially pregnant but one can be a partial psychiatric casualty with partially effective functioning. The continuum concept also suggests, and history clearly supports, that what moves down the continuum toward ineffectiveness can also move up toward effectiveness, and often rapidly. Each of the collection of manifest ineffectiveness forms can vary from slightly to markedly disabling. The combat effectiveness continuum fits neatly with the range of four qualified behavioral descriptions suggested by LTC Immanuel Cohen, Chief Psychiatrist, Israeli Defense Force (Figure 2).

Normal Range of Reactions in Combat Effectiveness: Before one can understand the psychiatric casualty, one must understand the normal reactions of soldiers to combat (Baker, 1975a, 1975b; Ingraham and Manning, 1980) (Figure 3).

Normal Somatic Symptoms of Combat Stress Include:

- (a) muscular tension
- (b) shaking and tremor
- (c) increased perspiration
- (d) digestive and urinary system reactions
- (e) circulatory and respiratory systems reactions

Normal Psychological Reactions to Combat Stress Include:

- (a) fear and panic
- (b) sensitivity to noise
- (c) sleep difficulties
- (d) apathetic tendencies
- (e) irritability and resentment
- (f) extremely lethargic or euphoric post combat mood states

An additional reaction, that of penile erection, apparently occurs at least once in the heat of combat in a not insignificant number of soldiers; this was related by a veteran combat officer in reflecting back on the experiences of his men in Vietnam and corroborated by several other combat platoon leaders and company commanders.

These are normal combat reactions and it is extremely important that their occurrence be legitimized. It is important to get across that the vast majority of soldiers can temporarily move from effective to ineffective, and that this is typically signalled by the exaggeration of one or more of these normal reactions. It is equally important that our population understand that the great majority of soldiers have the ability to tolerate marked stress and function effectively, although requiring differing levels of support.

Nine Psychiatric Casualty Manifest Forms: (Figure 4) There are at least nine manifest forms which are differentiated by their presenting problem patterns, conditions under which they occur (Rath, 1979; Marshall, 1947; Spiegel, 1973), and management procedures necessary to reverse them.

The nine manifest forms can be divided into classical medical patterns and those unique to combat.

The classical medical manifest forms require little elaboration for this audience; they are

Psychiatric disease: in the classic diagnostic sense, involving psychotic and severe, incapacitating neurotic conditions. Incidence rates may increase in combat but still represent only a fraction of total psychiatric casualty by most military personnel. Lowest return to duty rate.

Psychosomatic illness: appear much as they do in a peacetime setting, military or civilian, and are a function of environmental stress and personality factors, although the latter is less heavily weighted than in psychiatric disease. Conversion reactions are rare, but gastrointestinal syndromes, low back pain without organic findings, headaches without neurologic findings are not. Demonstrable organic disease can also be the result of combat ineffectiveness; e.g., malaria in spite of the availability of appropriate preventive medications. When leadership and unit norms don't legitimize the healthy experience of fear and uncertainty and provide periods of respite as possible, psychosomatic syndromes will increase. When medical personnel don't expect the soldier to return to duty, such syndromes can become epidemic in the group and crystallize in the individual.

Psychologic complication of medical problems: an insidious process which involves growing resistance on the part of patients, with demonstrable trauma and/or illness, to return to combat roles.

It is manifested by slower than expected recovery of physical well-being/functioning and by increasing statements, verbal or behavioral, of reluctance to return to battle. Medical management procedures and expectations of health care personnel are of utmost importance.

Acute exhaustion: Physiologic exhaustion, typically involving an individual who has failed to pace himself during an acute period of marked arousal. Well described by the Israelis after the 1973 war.

The Manifest Forms Unique to Combat Are:

Combat reaction: an acute anxiety reaction with fear of death, maiming, fear and/or incapacitation, manifested by physical and psychological symptoms, typically an exaggeration of normal combat reactions, sharply limiting combat effectiveness. This will represent the highest incidence rate early in combat, closely associated with intensity (i.e., KIA rate), type of combat action, leadership and group cohesion, and has the greatest potential for reversibility, with quick return to duty and combat effectiveness if managed effectively. While naturally a transient, temporary condition it becomes a chronic, persistent condition if not managed effectively (similar to school phobias). Legitimization of the most transient forms of the combat reaction (i.e., return to duty within hours if not minutes) is probably an important preventive factor in minimizing the incidence rates of the more virulent forms of psychiatric casualty and acts to ease re-entry of all psychiatric casualties with their combat units.

Withdrawal from battle: a motivational, social, societal, organizational manifest form signalled by alcohol or drug abuse (Kormos, 1978), passive refusal to fight, AWOL or preoccupation with dependents and significant others. It is subject to contagion and is very much a syndrome of opportunity. Leadership, adequacy of information and belief in the military organization and governmental entity to maintain its commitments are crucial elements. I feel we need to put much more effort into considering this manifest form as it is a parallel to one of our major personnel problems in garrison; the attrition, or "withdrawal from garrison," of so many of our first-term soldiers. We also see withdrawal from garrison in experienced soldiers as witnessed by the reluctance of many senior personnel across a wide range of military specialties to serve overseas. Incidence rates can vary widely; e.g., in Vietnam in U.S. Forces from close to zero in 1965-67 to significant proportions in 1969-72 (Jones and Johnson, 1975). Our mental health consultation should reflect increased understanding of the undesirable side effects of actions which would tend to reduce combat reactions and combat exhaustion (phone calls home, extensive PX services, multiple rest and recreation trips), but facilitate withdrawal from battle.

Combat exhaustion: reflected by physical and psychological fatigue, incidence rate is highly correlated with duration of combat. It combines features of the combat reaction and withdrawal from battle and is a result of cumulative stresses. It is best prevented and managed by preplanned withdrawal of units from active combat for rest, reconstitution, and retraining.

Short Timers Syndrome: largely a function of organizational rules (rotation policy), group norms (when does one stop going on patrol), and individual expectancies. It is manifested by heightened anxiety and increased reluctance to expose oneself to danger as a predetermined date for legitimate withdrawal from battle approaches. It can be a progressive phenomenon, in that its duration can "creep up" over time, unless carefully checked by leadership and command modelling.

? Manifest Form: emergence of a new form or return of an old form which had a minimal incidence rate in recent war. Harry Holloway reports that hyperventilation was the most common form of psychiatric casualty in U.S. Forces in RVN, at least until the drug and alcohol epidemic. While hyperventilation probably can be subsumed under "combat reaction," until it is generally recognized as frequently occurring in a particular combat it represents a particular hazard. For example, how would it be reacted to in an environment where chemical attack is considered highly probable, sometime? Will a limited nuclear environment, with or without biochemical warfare, lead to a return of the WWI shellshock and pseudo-gas attack syndromes? What new manifestations of withdrawal from battle and psychosomatic forms will appear in a conventional war simply because man's ingenuity creates new avenues to survival?

In suggesting these manifest forms I am not arguing for early differential diagnosis of combat ineffectiveness but rather proposing a conceptualization of the varied ways psychiatric casualties present over the course of a conflict. Early differential diagnosis is to be avoided at all costs as it leads inevitably to a higher evacuation rate, a loss of combat effective manpower, and chronic individual problems.

#### ESTIMATING PSYCHIATRIC CASUALTY WORKLOAD

Now, on to estimates of the numbers of these casualties to be expected. The forms which are likely to be seen in the early stages of combat, and thus are reflected as the psychiatric casualty estimates here, are combat reaction, acute exhaustion, withdrawal from battle, psychiatric disease and psychosomatic syndromes.

Estimating incidence rates of psychiatric casualties for future combat situations is difficult for three reasons. One, statistics from prior combat environments (WWII, Korea, Vietnam) are imprecise and not fully definable. Two, the nature of combat environment changes over time. Three, our very state of preparedness to manage psychiatric casualties has a preventive effect. Nonetheless, we must make efforts to estimate psychiatric casualties so that we can plan for appropriate staffing, roles for staff and psychiatric casualty management procedures.

Assumptions:

The estimates presented are based on the following assumptions:

- 1) A mobile, intensive combat environment.
- 2) That psychiatric casualties are related to Wounded in Action Rates with a one day latency.
- 3) A range of ratios, taken from U.S. Army experience, of psychiatric casualty per wounded in action.
- 4) That the majority of psychiatric casualties involve transient conditions, particularly combat reaction, withdrawal from battle and acute exhaustion (lack of sleep, dehydration).
- 5) That psychiatric casualties can be expected to return to duty on the same day, or up to four days from date of casualty, depending on management procedures.
- 6) Evacuation of psychiatric casualties will start not prior to 72 hours after identification as a psychiatric casualty (i.e., evacuation at day of casualty plus four days).
- 7) The rate of return to duty will range from 15% to 75% (conservative, some would say 95%) depending on effectiveness of preparation and implementation of management procedures.
- 8) That our interest is in the first several weeks of combat where our preparation will be of utmost importance. Should the conflict last longer, other factors will come into play and the experience of the first 30 days will shape subsequent estimates and procedures.

Facts:

The following facts should be kept in mind when considering the casualty estimates:

1) The numbers of temporary losses and evacuated patients will depend on the rate and the pace of return to duty.

2) Psychiatric casualties are successfully managed and returned to duty at an optimal rate when they are managed with, or proximal to, their units, are managed simply and immediately with firm reassurance, warmth and rest, and are expected to return to duty. The goal is a short respite from battle and quick return to functioning in the unit of origin.

3) Psychiatric casualties do not necessarily identify themselves as such and often present with concerns regarding physical fitness and possible underlying organic illness. Battalion aid and clearing station personnel cannot immediately identify the psychiatric casualty from among the organically ill (meningitis, malaria, etc.) and lightly wounded. It is necessary that soldiers presenting at medical treatment facilities be evaluated by medical personnel and grossly differentially diagnosed between organic illnesses/wounds and psychiatric casualties.

4) Psychiatric casualties initially defy differential diagnosis between psychiatric disease and other persistent psychologic conditions on the one hand, and acute, quickly reversible conditions on the other hand. Thus it is necessary to avoid premature specific psychiatric diagnosis and evacuation; all psychiatric cases must be treated as those of combat reaction/withdrawal from battle/acute fatigue until response to treatment should prove otherwise.

5) Returning the temporary psychiatric losses to effective functioning with his unit in combat is important to the continuing cohesion of the unit and its functioning; in turn, the cohesion of the small unit is the major sustaining force for the soldier in combat.

6) Hasty evacuation of psychiatric casualties is detrimental to both the individual and the unit, leading to chronic adjustment problems in the individual and to contagion effects in the unit, often with drastic impact on combat effectiveness.

7) Primary management of psychiatric casualties is provided by unit leaders, battalion surgeons, physician's assistants, and aid and clearing station corpspersons. Psychiatrists, psychologists, social workers, and behavioral science specialists function primarily as consultants to these personnel and as managers of "holding centers" colocated with medical treatment facilities (probably at division rear clearing station).

8) Primary prevention involves supporting unit cohesion, command management of normal fear, and not allowing acute psychiatric casualty status to become an easy, or automatic, way out of the battle area.

### Psychiatric Casualties in a Forward Corps

The estimates for a forward corps are presented in Table 1 and do not include temporary psychiatric ineffectives (a soldier who is ineffective in the combat zone for psychiatric reasons, remains under supervision of his unit, about whom the unit receives medical/psychiatric consultation and who might or might not be seen as a psychiatric outpatient; while these soldiers remain on their unit roles, they represent a temporary loss, whether one hour or 48 hours, in effective unit strength). The estimates do include psychiatric outpatients and evacuated patients. Depending on the nature of the combat and type of corps involved, psychiatric casualty losses in a corps will range from minor (equivalent to one or two companies) to significant (equivalent to two battalions to one brigade [-] ) at "advent of hostilities + 8 days." Unless we prepare now and engage in more effective preventive consultation, the higher estimates will be approached. If we do prepare and are effective in our preventive efforts, we could hold the psychiatric casualties to the mid range of the estimates for a 75% return to duty rate. That is, even with effective preparation we could expect, in a Corps, 150-200 psychiatric casualties per day (excluding temporary psychiatric ineffectiveness) and at "advent of hostilities + 8 days" would have evacuated 100 + psychiatric casualties and have 600 to 700 psychiatric casualties under management in the Corps area.

Examination of Table 1 indicates that effective management of psychiatric casualties (75% return to duty rate) leads to markedly lower overall psychiatric casualty loss rates (40%-50% lower at "advent of hostilities + 8 days"), due to the lower evacuation rates/higher return to duty rates. It is important to note that whether we have a high return to duty rate (75%) or a low return to duty rate (15%), the number of soldiers under psychiatric management (Psychiatric Outpatients) remains essentially the same. Thus our mental health manpower needs can be considered to remain constant within the combat zone whether we manage casualties effectively or not. This is true, of course, only if there is no exacerbating effect of a significantly higher evacuation rate on the incidence of psychiatric casualties; i.e., it is possible that a higher evacuation rate under ineffective psychiatric management conditions would create a pull, or contagion effect, which would draw other stressed soldiers to seek relief, consciously or subconsciously, through psychiatric or other medical evacuation chains.

### Psychiatric Casualties at Division, Brigade and Battalion

The estimates at Corps level are useful for gaining perspective on the potential importance of our ability to manage psychiatric casualties effectively. One can readily see that if we don't, we will be decimating our fighting units. To get a better sense for



what this might mean in terms of workload at the level of division mental health professionals, we need to look at estimates for a type division, a type brigade and a type battalion (Table 2). The estimates at this level include those soldiers who are temporary psychiatric ineffectives. This is slightly greater than two fold factor, based on historical estimates that 60% of all psychiatric casualties are returned to duty the same day and thus do not appear in historical medical statistics.

Examination of Table 2 indicates that, if all goes most favorably and we experience the lower estimates, we would still be hardpressed to manage the psychiatric casualties on a direct patient care basis. If we experience higher estimates due to some combination of the nature of the combat, the type unit and quality of leadership, it should be obvious that direct contact by mental health personnel with each casualty is impossible and that the forward medical structure couldn't begin to "house" as medical patients all the psychiatric casualties. Mental health personnel will function largely as consultants to those who directly manage the psychiatric casualties. Management by command, battalion brigades and division rear will be essential. Group management rather than individual treatment is desirable because of the nature of the problem and essential because of the sheer numbers. As Spiegel has so well described, we must use the combat units themselves to temporarily manage some, if not many, of the transient psychiatric casualties.

#### DIVISION MENTAL HEALTH RESOURCES

My third topic is that of the organization and functioning of the mental health resources in a division.

##### Expected Battlefield Characteristics

If there is a European battlefield in the 1980s there is likely to be minimal time for final preparation and our forces can be expected to experience relatively high levels of surprise, at least psychologically if not in fact. While this "surprise" scenario is not necessarily the official US expectation, it is the situation in which our efforts will be most important and therefore that for which we must prepare. The opposing forces are expected to follow their doctrine of continuous, mobile combat with fighting through the night and intensive supporting fires. Specific efforts at disrupting the morale of our forces and instilling incapacitating fear are part of the enemy doctrine.

Our forces' doctrine has changed significantly from that demonstrated in World War II and that which most of us studied in ROTC, Advanced Courses, and Command and General Staff Colleges

through the early to mid 1970's. We will not experience the old "2 up, 1 back," with stability of locations and relative confidence in maintaining fairly sophisticated life and limb saving capability well forward. Rather, we must expect that our combat power will be as deep as wide, with depth provided by maneuver of forces. There will be an offensive spirit, with relatively small reserves, and greater mobility of forces and actual maneuver of forces than ever before.

Friendly and enemy doctrine and capabilities have strong implications for the organization for functioning of our mental health resources, largely in the form of demand characteristics and constraints. The very conditions which increase the risk of psychiatric casualties make for a more demanding environment in which to provide the necessary services.

We must always remember that psychiatric casualties don't identify themselves as such nor do they present with tags indicating their psychiatric status, unless the casualty is one of the relatively infrequent cases of psychiatric disease. On initial contact the medical person decides whether the soldier, demonstrating psychiatric casualty symptoms, can return to duty (RTD) immediately or must be held for a brief period (48 hours or less). At 48 hours, or before, determination is made of whether the soldier can RTD or whether he will be held in patient status longer to determine if he is an intermediate psychiatric casualty (RTD within 7 days), or a persistent psychiatric casualty who is unlikely to return to duty.

Medical personnel must be taught to focus on the functionality of behavior rather than its pathologic status; that is, a soldier with psychopathology can still be a functioning soldier who continues on duty while a soldier free from definable psychopathology can be non-functional and ineffective. Likewise, we must remain aware that while combat exhaustion in the classical sense shows up after 1½ months or more of combat, acute physiologically based exhaustion is possible within 48 hours.

There are four repeatedly validated principles for the management of psychiatric casualties: proximity, immediacy, simplicity, and expectancy. A fifth principle evolved in Vietnam, that of centrality. Re-examination of increasing psychiatric casualty statistics as the Vietnam conflict continued suggests that centrality might be undesirable in that it undermines cohesion and expectancy while violating the principles of proximity, immediacy, and simplicity.

#### Activities of Mental Health Personnel

Activities of mental health personnel in combat can be best conceived within three major tasks: management of psychiatric casualties with maximum return to duty; consultation to command to minimize rate of psychiatric casualties and maximize combat effectiveness; and maintenance of effectiveness of mental health personnel.

Management of Psychiatric Casualties: Mental health personnel should be well trained, and confident in their ability to manage psychiatric casualties and return the maximum number to duty with minimum delay. They need to have actively considered their own concerns regarding combat, their ability to function and survive in combat, and their ability to tolerate situations they can't master but with which they can only cope. The mental health team should have developed standard psychiatric management procedures within each level of the division and then monitor and control these procedures. One focal issue will be the decision about the use of psychotropic medication; for example, current Israeli policy prohibits their use in forward areas. One rule of thumb would be that psychiatric casualties at the forward battalion and clearing stations either will be returned to duty within 48 hours or moved back to the division rear clearing station; there they can be managed for up to 48-72 hours and evacuated only if they cannot be RTD during this period.

Mental health personnel will spend more time consulting to primary health care providers than they will directly dealing with psychiatric casualties. Mental health personnel must remain aware of the resources available at each level. They must help the primary care personnel in identifying psychiatric casualties and insure that physical causes of combat ineffectiveness continue to be ruled out prior to presuming psychiatric casualty.

Keeping abreast of psychiatric casualty rates will be important, with means and procedures for reporting and disseminating rates to be established. Incoming rates will indicate units at increased risk and/or the need to modify standard management procedures which can become ineffective rapidly if the four cardinal principles are violated. It could become necessary to shift mental health resources to support units demonstrating increased prevalence and risk.

Some commanders will be initially reluctant to maintain and/or take back psychiatric casualties. Mental health personnel must assertively educate these commanders to do so. Obviously this is best accomplished in the pre-combat period (Rath, 1980) possibly by convincing senior commanders that units should take their marginally functioning personnel along on field exercises so that the units develop the expectancy and ability to bring the temporarily ineffective soldier to combat effectiveness.

Consultation to Command: Mental health personnel must develop the ability to provide well based, pragmatic advice to commanders on psychological and social issues related to effective combat functioning. Command consultation is not a passive procedure in which mental health personnel wait for the commander to solicit advice. Rather we must monitor the changing situation, develop mental health estimates of the situation, and recommend course of action. Which units are at increased risk and what should command and mental health personnel do about it? What are the critical data mental health personnel should be screening?

Experience of commanders, numbers of new personnel, percentage strength of units, recent combat history, certainty of current and near term situations, recent loss of key personnel and battle momentum are just some of the key variables. Are there leadership problems, or units requiring respite, of which the commander is unaware? If so, he must be told.

We must be prepared to consult on issues of information dispersal and the timing of such. Where is it best to withhold information and when should information be dispersed, even if the information is uncertain? Under what conditions would withholding of information risk the credibility of command?

A special focus for consultation will be the AG replacement company at division rear. Are they returning soldiers expeditiously to their units of origin? At what level, i.e., company, battalion, brigade, is unit of origin defined? How are replacements being sent to units? Is there appropriate consideration of the advantage of sending men forward as teams, which at times might mean some delay, rather than rushing individual replacements forward?

Maintaining Mental Health Personnel: Dealing with highly stressed personnel, often as the only mental health person at a particular location, is inherently stressful. As with other soldiers, we must expect that unless we make specific efforts toward maintaining our own morale and sense of effectiveness that we too will become ineffective. Linkage with the supported unit, communication among mental health personnel, feedback on effectiveness of efforts, rotation of duties and consultative support from other mental health personnel are all important.

#### TOE Mental Health Manpower and TDA Augmentation

Existing divisional TOEs call for a Mental Health Consultation Team consisting of three mental health professional officers (psychologist, social worker and psychiatrist) and eight enlisted behavior science specialists. With ten to twelve maneuver battalions per division, plus four to five artillery battalions, it is obvious that the current TOE does not allow for mental health dedicated resources at the battalion.

The most recent concepts of "Division 86" call for four officers (an additional psychiatrist) and three behavioral science specialists on the Mental Health Consultation Team, and one behavioral science specialist organic to each battalion aid station. This new concept obviously assumes a high rate of potential psychiatric casualties and a high level of competence and emotional maturity for our enlisted specialists.

Well over half of the behavioral science specialists and between one half and one third of mental health professional officers in USAREUR are in TDA positions. Thus, these are potential augmentations for our current divisional TOE mental health assets. In deciding on augmentation levels, it will be necessary to consider the capabilities of the potential augmentation personnel. What are the levels of training, experience and expertise? What percentage are capable of independent functioning and are ready to continue coping with a demanding situation they can neither control nor master? What emotional and supervisory support can and should be provided by mental health officers and how much identification should be encouraged with the unit being served, rather than with the team of origin?

#### Considerations in Determining Utilization Plan:

There are many procedural/situational questions which must be considered in evaluating potential augmentation plans and utilization (organization) models.

1. Will the combat flow allow for substantial brigade clearing stations, or will medical resources be shifted to division rear (current Div 86 concept)?
2. What will be the mobility of mental health personnel? Will they be able to shift to points of need? Can they link up to move across units with personnel with organic transport?
3. What communication nets will be available to mental health personnel and how can the mental health officers keep abreast of divisional mental health status?
4. How can we keep temporary casualties with mobile units and how many ambulatory casualties can given types units carry?
5. What percentage of temporary casualties can be managed within the battalion of origin?
6. If a psychiatric casualty is taken from his unit, how can he be returned to the unit? What size unit, i.e., squad, platoon, company, battalion, should be considered the unit of origin?
7. How long can a service member be a temporary casualty before the unit can, or must, requisition a replacement?
8. How many sleeping bag spaces, litter holders, and cots are available for psychiatric casualties at brigade and division clearing stations?
9. How does the mental health team maintain its focus on prevention and enhancement of good functioning, while simultaneously managing psychiatric casualties and returning the maximum to duty?

10. Is the fifth "principle" of management of psychiatric casualties, "centrality," obtainable and desirable? Does it work against immedicacy and proximity?

11. Would cross training in life saving techniques lend credibility to front line mental health personnel or would it interfere with their primary mental health role?

#### Organizational Models for Utilization of Mental Health Resources

There are two basic models which can be simply called the centralized and decentralized models. With the current TOE division mental health assets the organizations would look as follows:

##### (1) Centralized - TOE Assets Only

Division Clearing Station: Three officers, five behavioral science specialists. Functions: Provide care and disposition of psychiatric casualties, consultation to division staff and brigade clearing stations.

Brigade Clearing Stations: One behavioral science specialist at each. Functions: Provide consultation to brigade clearing station staff and assist in triage and management of psychiatric casualties.

##### (2) Decentralized - TOE Assets Only

Division Clearing Station: Psychiatrist and two behavioral science specialists. Functions: Same as (1).

Brigade Clearing Stations: The psychologist and social work officer at separate brigade clearing stations, each with two behavioral science specialists, with the remaining two behavioral science specialists (to include the most competent) at the third brigade clearing station. Same functions as at Division Clearing Station, plus below.

Battalion Aid Stations: Personnel at Brigade Clearing Station will move forward to conduct education and preventive consultation and also provide direct intervention at crucial times.

With augmentation by two officers and eight behavioral science specialists, the organization would look as follows (Table 3):

##### (3) Centralized - With Augmentation

Division Clearing Station: Psychiatrist, social work officer and seven behavioral science specialists. Functions: Same as (1).

Brigade Clearing Station: One psychologist and three behavioral science specialists at each of two brigade clearing stations, and one social work officer and three behavioral science specialists at the third brigade clearing station. Functions: same as (2).

Battalion Aid Station: Personnel at Brigade Clearing Station will move forward to conduct education and preventive consultation and also client intervention at crucial times.

(4) Decentralized - With Augmentation

Division Clearing Station: Psychiatrist and social work officer, three behavioral science specialists. Functions: same as (1).

Brigade Clearing Station: One officer and one behavioral science specialist each. Functions: to a limited degree, same as (2)

Battalion Aid Station: One behavioral science specialist at each of ten maneuver battalion and/or field artillery battalion aid stations. Direct support, supervision and frequent face-to-face contact at the forward aid station from the psychologist or social work officer at brigade.

Comparison of Centralized and Decentralized Models for a Type Division

Taking a type division, with critical factors as stated, the two models are compared in Table 4.

For this particular division the analysis appears to favor the decentralized model. As the factors change, for the same division at another point in time, or for another division at the same time, the analysis might favor the centralized model. For example, if all enlisted and officer mental health personnel were inexperienced, the centralized model could be most appropriate.

For some division a mixed model could be appropriate, based on the needs of the brigades and differences in mental health and medical capabilities. For example, 91Gs down to the battalion level in one or two brigades, but not in the other(s). A general guiding rule should remain that the further forward we can maintain our mental health expertise that the more effective our preventive efforts will be and the less will the loss of combat effectiveness through psychiatric casualties. The crucial factors determining how far forward we can maintain our mental health personnel are: (1) level of experience and capability for independent functioning; (2) transportation; (3) communication; and (4) the network of mental health supervisory support.

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FIGURE 1  
COMBAT EFFECTIVENESS CONTINUUM

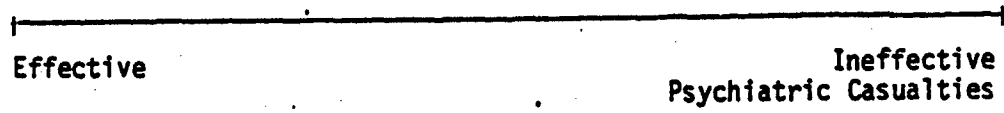


FIGURE 2

Supernormal      Normal      Subnormal      Abnormal

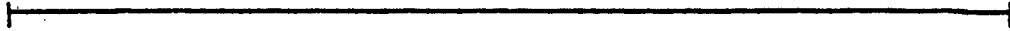


**FIGURE 3**  
**ENVIRONMENTAL FACTORS IN PSYCHIATRIC CASUALTY**

Intensity of Combat  
WIA and KIA Rates  
Duration of Combat  
Type of Combat Action  
Pace of Combat Action  
Surprise  
Type Unit  
Unit Cohesion  
Morale - Self Respect, Group Identification, Team Cooperation  
Separation from Group of Identity  
Unit Leadership  
Loss of Leader  
Inaction  
Partial Success  
Replacement Processes  
Experience in Combat  
Rumors and False Alarms  
Expectation Regarding Outcome  
Competing Demands on Loyalty  
Command Preparation for Management  
Medical Preparation for Management

FIGURE 4

MANIFEST FORMS OF PSYCHIATRIC CASUALTY

Classical Forms

Psychiatric Disease  
Psychosomatic Illness  
Acute Exhaustion  
Psychologic Complication of Medical Problems

Forms Unique to Combat

Combat Reaction  
Withdrawal from Battle  
Combat Exhaustion  
Short Timers Syndrome  
? Manifest Forms

Table 1

ESTIMATES OF PSYCHIATRIC OUTPATIENTS AND  
EVACUATED PATIENTS FOR A TYPE CORPS (40,000)

| Return to Duty Rate                                             | 15%         | 75%         |
|-----------------------------------------------------------------|-------------|-------------|
| Number of Casualties per day                                    | 60 to 315   | 60 to 315   |
| Psychiatric Casualties (Less Ineffectives) as of A of H + 8     | 380 to 2270 | 190 to 1420 |
| Evacuated to Date                                               | 180 to 920  | 40 to 210   |
| Psychiatric Outpatients Continuing Under Psychiatric Management | 200 to 1350 | 150 to 1210 |

Table 2

ESTIMATES OF PSYCHIATRIC CASUALTIES AT  
 "ADVENT OF HOSTILITIES + 5 DAYS," ASSUMING 75% RTD\*

|                                                        | TYPE UNIT  |           |           |
|--------------------------------------------------------|------------|-----------|-----------|
|                                                        | DIVISION   | BRIGADE   | BATTALION |
| Number of New Casualties<br>Per Day                    | 60 to 295  | 12 to 60  | 3 to 18   |
| Total Current Ineffectives<br>Number seen per day      | 130 to 625 | 25 to 125 | 8 to 40   |
| Temporary Psychiatric Losses                           |            |           |           |
| Temporary Psychiatric<br>Ineffective<br>Immediated RTD | 35 to 175  | 5 to 35   | 2 to 11   |
| Psychiatric Outpatients                                |            |           |           |
| RTD after 1-3 days                                     | 25 to 100  | 5 to 20   | 2 to 6    |
| Under psychiatric mgmt                                 | 75 to 320  | 15 to 65  | 5 to 21   |
| Evacuated this Date                                    | 5 to 32    | 1 to 6    | 0 to 2    |

\* Total daily casualties per day = psychiatric casualty estimates  
 extrapolated from Table 1 divided by .40.

Table 3

DIVISION MENTAL HEALTH TEAM ORGANIZATION  
TDA Augmentation  
(2 Officers, 8 91Gs for Total 5 Officers, 16 91Gs)

CENTRALIZED MODEL

Battalion Aid Station (12-16): Receive forward consultation from  
Brigade Clearing Station

Brigade Clearing Station (3): 1 - 68S, 3 - 91G  
1 - 68R, 3 - 91G  
1 - 68S, 3 - 91G

Division Clearing Station (1): 1 - 60W, 1 - 68R, 7 - 91G

DECENTRALIZED MODEL

Battalion Aid Station (12-16): 1 - 91G at each of 10 Battalion  
Aid Stations

Brigade Clearing Station (3): 1 - 68S, 1 - 91G  
1 - 68R, 1 - 91G  
1 - 68S, 1 - 91G

Division Clearing Station (1): 1 - 60W, 1 - 68R, 1 - 91G

Table 4

## SIGNIFICANT FACTORS ANALYSIS FOR A TYPE DIVISION

| <u>FACTOR</u>                                                               | <u>CENTRALIZED MODEL</u>                                                       | <u>DECENTRALIZED MODEL</u>                                        | <u>FAVORS</u> |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------|
| Principle of Proximity                                                      | Violates (-)                                                                   | Supports Proximity (+)                                            | D             |
| Principle of Immediacy                                                      | Violates (-)                                                                   | Supports Immediacy (+)                                            | D             |
| Principle of Expectancy                                                     | Possibly Lower Expectancy (0)                                                  | Supports Expectancy (+)                                           | D             |
| Principle of Simplicity                                                     | More Complicated for Cases (-)<br>Not Easily Dealt With Initially              | Supports Simplicity (+)                                           | D             |
| Principle of Centrality                                                     | Close Control of Mental Health (+)<br>Resources, Effort                        | Decentralized Control (-)<br>and Effort                           | C             |
| Non Dedicated Radio-<br>Telephone Commo;<br>Cannot Reliably<br>Communicate  | Not Essential to Have Extensive (0)<br>Commo; Adequate                         | Reliable Commo Required for (-)<br>Supervision/Shift of Resources | C             |
| Transportation of<br>Temporary Casualties<br>With Unit Limited              | Not Essential (0)                                                              | Essential (-)                                                     | C             |
| Transportation Between<br>Units and Clearing<br>Stations Limited            | To Move Soldiers Back (-)<br>To Units, Essential                               | Not Essential (0)                                                 | D             |
| Low to Moderate Experience<br>of Enlisted Behavioral<br>Science Specialists | Direct Supervisory Support (+)<br>Available                                    | Supervisory and Emotional (-)<br>Support Indirect                 | C             |
| Low Mental Health Sophis-<br>tication of BN Surgeons, PAs                   | Consultation Difficult Because (-)<br>of Distance, But Necessary               | On the Spot Consultation (+)<br>Available                         | D             |
| Moderate to High Psycho-<br>logic Sophistication of<br>Commanders           | Command Consultation Can Be Less (0)<br>Frequent                               | Enhances Preventive (+)<br>Possibilities                          | D             |
| Limited Patient Holding<br>Capability at Bde Clearing<br>Station            | Difficult as Don't Have Mental (-)<br>Health Resources Forward to<br>Battalion | Awkward But Can Maintain (0)<br>Further Forward                   | D             |



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CREDENTIALING OF THE MILITARY PSYCHOLOGIST  
(LICENSING AND THE NATIONAL EXAM)

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Excerpts from "The Entry Requirements for Professional Practice of Psychology" published by the American Association of State Psychology Boards and "Information for Candidates Examination for Professional Practice in Psychology" are included.

THE ENTRY REQUIREMENTS

THE PURPOSE OF LICENSURE OR CERTIFICATION OF PSYCHOLOGISTS\*

The practice of professional psychology is now regulated by law in 49 of the 50 states of the U.S., as well as the District of Columbia and 7 provinces of Canada.\*\* The laws are intended to protect the public by limiting licensure to those persons who are qualified to practice psychology as defined by state law.

The legal basis for licensure lies in the right of the state to enact legislation to protect its citizens. Caveat emptor or "buyer beware," is felt to be an unsound maxim when the "buyer" of services cannot be sufficiently well informed to beware, and hence states have established regulatory Boards to license qualified practitioners. A professional board is a state agency acting to protect the public, not to serve the profession. However, by insuring high standards for those who practice independently, the Board is simultaneously serving the best interests of both the public and profession. The major functions of any professional board are: (1) To determine the standards for admission into the profession and to administer appropriate procedures for selection and examination, and (2) To regulate practice and to conduct disciplinary proceedings involving violation of standards of professional conduct embodied in law.

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\* When both the title and practice of psychology are regulated, the law is called a licensing law; when only the title of psychologist is regulated, the law is called a certification law: To avoid redundancy in the remainder of our discussion the word "licensure" will be used to stand for either licensure or certification.

\*\* Throughout this text the term "state" will refer to Canada's provinces as well as political subdivisions of the U.S.

Those who practice the profession of psychology in a research laboratory, in a state or federal institution or agency, or in a college or university are still exempt from the requirements of licensure in some states, although there is a trend toward requiring licensure of agency employees. The psychologist who offers direct services to the public for a fee must be licensed.

#### TYPICAL REQUIREMENTS OF PSYCHOLOGY LICENSING LAWS

Licensing laws in the various jurisdictions differ considerably, yet most have a common core of agreement. Of course, each board is the final authority on all matters of requirements within its jurisdiction and should be contacted for specifics. The typical requirements for licensure in the various jurisdictions are as follows:

##### A) Education

Achievement of a doctoral degree in psychology from an approved program, or the equivalent as deemed by the board. The definitions of approved programs vary widely, but often refer to accreditation of the academic institutions by recognized accrediting bodies. (Some states have two or more levels of licensure or certification, with the lower level requiring less than the doctoral degree and entailing more restrictions on the practitioner.)

##### B) Experience

One or two years supervised experience in a setting approved by the state board. Most, but not all, states require that some of the supervised experience be postdoctoral.

##### C) Examination

Demonstration of relevant knowledge through passing an objective written examination. The Examination of Professional Practice in Psychology, constructed by a committee of AASPb in association with the Professional Examination Service, is used in about 48 jurisdictions. The cut-off point for successful performance on the examination is determined by the board having authority for the jurisdiction. In some states, successful performance is required on an oral and/or essay examination conducted by the Board or a committee designated by the Board. Specialty examinations, e.g., in clinical psychology, industrial psychology, or school psychology may become common in the near future.

#### D) Administrative Requirements

In addition to the foregoing requirements, the various state laws specify different citizenship, age, and residence requirements, as well as requiring evidence of good moral character.

Stated succinctly, the major hurdles which any candidate must meet in the evaluation by the board are:

1) The Board's review of credentials (transcripts, application, references).

2) Examination (written and/or oral).

Most candidates successfully pass these hurdles, but some fail. Potential sources of difficulty are discussed below.

#### HOW TO PREPARE FOR SUCCESSFULLY MEETING THE REQUIREMENTS OF LICENSURE

Although well prepared candidates have little or no problem with the licensing process, certain areas can be identified in which difficulties are most likely to occur. These potential problem areas are:

1) Knowledge of the law and regulations. The applicant should examine the law for the jurisdiction in which licensure is sought to assure that there has been full compliance with the law before an application is submitted. The applicant also should be familiar with, and comply with, any regulations of the board with respect to qualifications.

2) Adequacy of training and/or experience. The problems subsumed under this heading include a lack of the appropriate degree specified by the law (usually a Ph. D. in psychology); failure of the candidate to complete the required number of graduate hours in psychology; failure of the institution from which the degree was granted to meet the criteria for approval by the board; failure of the specific curriculum in which the student was enrolled to meet the requirements of the particular state board. With regard to the last-mentioned criterion, most laws contain a stipulation that the graduate work be predominantly based upon a dissertation which is psychological in content. It should also be noted that some jurisdictions require evidence of continuing education, beyond the Ph.D., for psychologists to retain their licenses.

In addition to these problems having to do with the nature of the candidate's education, each law specifies the duration of experience required, and each board stipulates the type of setting in which approved experience may be obtained. Typical of such approved setting are the APA-approved internship programs. Each candidate should plan for supervised experience that will satisfy the legal requirements for practice in the jurisdiction in which licensure is desired.

3) Examination Performance. Successful performance in state licensing examinations usually requires demonstration of knowledge of basic psychology which is relevant to professional practice, along with knowledge of professional ethics and professional affairs. While numerous factors are undoubtedly operative, probably the most frequent source of failure is the candidate's possession of insufficient knowledge of basic psychology. Candidates may also be disqualified in oral examinations as a consequence of demonstration of insufficient knowledge about the management of professional problems, particularly ethical problems.

#### THE CONTENT OF THE EXAMINATION OF PROFESSIONAL PRACTICE IN PSYCHOLOGY

In order to help the candidate to prepare for the Examination of Professional Practice in Psychology (EPPP), a separate brochure has been prepared by AASPB, and is available from AASPB, the Professional Examination Service, or the board of examiners in those jurisdictions using the exam. In the paragraphs below, the content of that examination is summarized briefly.

1) Background knowledge: physiological psychology and comparative psychology, learning, history, theory and systems, sensation and perception, motivation, social psychology, personality, cognitive processes, developmental psychology, psychopharmacology;

2) Methodology: research design and interpretation, statistics, test construction and interpretation, scaling;

3) Professional practice:

a) Clinical psychology: test usage and interpretation, diagnosis, psychopathology, therapy, judgment in clinical situations, community health;

b) Behavior modification: Learning, applications;

c) Other specialties: Management consulting, industrial and human engineering, social psychology, T-groups, counseling and guidance, communications, systems analysis;

d) Professional conduct, affairs, and ethics: Interdisciplinary relations, professional conduct, knowledge of professional affairs.

The EPPP is published in various forms, with new forms published periodically. The examination varies from 150 to 200 items in length. The content areas enumerated above are not equally weighted.

The requirements for licensure, delineated above, and the discussion of potential bases for denial, suggest that the student who seeks out a broad and sophisticated background in psychology is likely to encounter few problems in the licensing process. The student should especially seek experiences which emphasize the application of psychological knowledge to problems likely to be encountered as a professional psychologist. Narrowly based training, avoiding the complexity of the field of psychology, is probably not in the student's best interest if professional practice is a goal. cursory or limited supervision, or supervision by other than a qualified psychologist, is also likely to lead to deficiencies. Moreover, since psychologists tend to be mobile, a broad background acceptable to all or most boards is preferable to training narrowly designed to meet the requirements of a single jurisdiction. Students who have sought out experiences consistent with APA standards and have taken training at recognized facilities of quality rarely experience difficulty in obtaining licensure.

An Interstate Reporting Service has been established by the Professional Examination Service to facilitate mobility by permitting easier endorsement of licenses among states. The Reporting Service maintains a permanent record of examination scores on the EPPP for those candidates who choose to register. On the candidate's request, the Service will report the score, accompanied by appropriate normative data, to the board of another state in which licensure is being sought.

#### RESOURCES

It cannot be overemphasized that the final and absolute word concerning requirements for licensure in any state must be obtained from the specific board in question. Addresses for state boards are published each calendar year in the American Psychologist. When in doubt, write or call your board. In addition to the individual Boards, the following are other sources of information which may be of value to students and faculty.

American Association of State Psychology Boards  
c/o Morton Berger, Ph.D.  
N.Y. State Board of Psychology  
99 Washington Avenue, Rm. 1841  
Albany, New York 12230

American Psychological Association,  
Office of Professional Affairs  
1200 Seventeenth Street, N.W.  
Washington, D.C. 20036

American Psychological Association,  
Office of Educational Affairs  
1200 Seventeenth Street, N.W.  
Washington, D.C. 20036

Standards for Providers of Psychological Services. American Psychological Association, September, 1974.

A model for state legislation affecting the practice of psychology, 1967. American Psychologist, Vol. 22, No. 12, December 1967.

A model for state legislation affecting the practice of psychology, 1975. (Draft) Committee on State Legislation, American Psychological Association.

Ethical Standards of Psychologists. American Psychologist, 1963. (Amended 1965 and 1972.) Published and updated periodically by the American Psychological Association.

Professional Examination Service  
475 Riverside Drive  
New York, NY 10027

APA-Approved Doctoral Programs in Clinical, Counseling, and School Psychology. Published annually in the American Psychologist.

APA-Approved Internships for Doctoral Training in Clinical and Counseling Psychology. Published annually in the American Psychologist.

Terris, L.D. The National Licensing Examination. Professional Psychology, 1973, 4, 386-391.

Secretary of the State Board of Examiners of Psychologists, your state.

#### INFORMATION FOR CANDIDATES

##### THE PURPOSES OF THE EXAMINATION PROGRAM

The Examination for Professional Practice in Psychology (EPPP) of the American Association of State Psychology Boards (AASPB) is provided for the purpose of helping the state and provincial boards of examiners in psychology to evaluate the knowledge of applicants for licensure and certification. There exists a wide diversity of educational preparation among the approximately 4,000 applicants who seek licensure and certification each year. This diversity is one reason that the state and provincial boards, acting collectively through the AASPB, construct and annually utilize a common, standardized yardstick (the EPPP).

The resources of the whole profession, AASPB and the Professional Examination Service (PES) are utilized in the development and continued improvement of the test on an international basis--resources which are not available to an individual board. The EPPP is only one part of the overall evaluation procedure used by state and provincial boards. The AASPB expects that the EPPP will be supplemented by other assessment techniques to determine candidates' competence to practice psychology as a profession.

The EPPP is intended to evaluate the knowledge of the candidate with the equivalent of a doctorate and one or two years of experience. It does so by sampling the knowledge basic to the practice of psychology at a level that candidates, regardless of their specialty, may be expected to have attained, and by assessing their ability both to integrate this knowledge and also to apply their knowledge of ethical standards. Most applicants with the required academic preparation should be able to pass the test with little or no additional study or other preparation. Neither AASPB nor PES have copies of past examinations which can be sent to applicants, nor is there a list of recommended books or other material for use in preparation for the examination. However, a candidate can compile such a list by considering the roles delineated for entry-level professional psychologists (see below) and the knowledge required for performance of those roles.

### TEST CONSTRUCTION

The EPPP is developed by the Examination Committee of the AASPB in cooperation with the Professional Examination Service, which provides examination services in many health-related fields. The development process is designed to maximize the content validity of the examination for its intended use.

The Examination Committee decides upon the content areas to be covered on the EPPP and the specific questions (items) to be included in the examination. Items are solicited from psychologists representing all areas of the practice of psychology in the United States and Canada. Item writers are provided with instructions describing the kind of items used in the examination. Since the beginning of the program in 1964, more than 600 psychologists have contributed questions for the examination.

The intent is to develop items that measure important knowledge which is directly related to the practice of psychology. Emphasis is on knowledge that has widespread application and significance in the solution of problems encountered by psychologists in all specialty areas.

The questions are screened and edited by the AASPB Examination Committee and by test specialists on the PES staff to ensure subject-matter accuracy and conformance to psychometric principles. In the final review, the items are sent to panels of three independent subject-matter consultants. Items which are approved through these steps are included in a file of items from which the Examination Committee constructs each new form of the examination. At the conclusion of this process, at least 15 people have reviewed and approved each item. A draft of each new form of the examination is prepared and reviewed by at least 10 independent experts before the examination is finalized and printed.

In the development of each new form of the examination, the Examination Committee reviews each item for continuing relevance and for psychometric performance as shown by item analysis. Each state or provincial board may review the test before electing to use it, and the opinions of the board on test content are sought and used by the Committee in the development of subsequent forms of the test.

### TEST CONTENT AND ADMINISTRATION

The examination consists of objective, multiple-choice questions covering knowledge important to the professional practice of psychology. Each form of the examination contains approximately 200 items. Each item has four alternative responses, only one of which is correct. The score is the total number of correct responses.

There is no penalty for guessing, and it is to the candidate's advantage to answer each item even when unsure of the correct response. The candidate should choose the single best answer to each item. No credit is given for items for which more than one response is selected. Sample items similar to those found on the EPPP are shown at the end of this section.

The time allowance is sufficient for most candidates to complete the examination.

The EPPP measures the knowledge base of psychology in performance domains in which entry-level psychologists may work and the roles which they may assume. The performance domains in which entry-level psychologists may work and the roles which they may assume were delineated by a Blue Ribbon Panel of psychologists composed of an academician and a practitioner from each of the following areas of psychology: clinical, counseling, general, industrial/organizational, and school. Their product was revised and rated by over 100 APA Fellows and is currently being rated by over 600 psychologists, both newly licensed and experienced practitioners. The domains and roles are used by the Examination Committee as a guide in selecting items for the examination.

#### Domain I.      TECHNIQUES FOR APPRAISING AND ASSESSING

1. Select and use psychological assessment techniques/instruments (e.g., tests, observation and interview procedures, survey instruments).
2. Interpret and report results of assessment, including feedback as appropriate to client and/or referral source.



Domain II. DESIGN, IMPLEMENTATION AND ASSESSMENT OF INTERVENTION

3. Design an intervention plan, based on interpretation of assessment results.
4. Implement an intervention plan.
5. Evaluate an intervention plan, including ongoing monitoring and final evaluation.

Domain III. USES AND TECHNIQUES OF RESEARCH

6. Read and critically evaluate research literature.
7. Design and implement experimental, evaluation, and validation research, including design of instrumentation, data collection, data analysis, and interpretation of results.

Domain IV. PROFESSIONAL AND ETHICAL ISSUES

8. Evaluate activities within the framework of professional, ethical and legal statutes, (e.g., confidentiality, adherence to professional standards, informed consent, honest representation of professional services, etc.).

The examination is administered by the state and provincial boards and the answer sheets are scored by PES, which reports the scores and relevant normative data to the administering board. Candidates are identified in the scoring process only by number. Each board sets the standard for passing in its respective state or province, and reports the results to the candidates. All procedures and decisions with regard to licensure are the responsibility of the individual boards.

VALIDATION OF THE EXAMINATION

Efforts to ensure the validity of the EPPP have been continuous since the inception of the examination program in 1964. The careful test-development process constitutes one major facet of the validation effort, one devoted to assurance of content validity. Over the years the relationships between test scores and characteristics of the examinees, as determined by anonymous questionnaires, have continuously been scrutinized to yield information relating to concurrent validity of the EPPP. Various independent researchers have studied the validity of the EPPP from a number of standpoints; the results of such studies are available in the literature and through AASPE.

In 1977, in response to new social, legal and professional developments, AASPB adopted a new research-funding procedure which permitted expansion of the validation efforts. Major studies are now under way to refine the content validation of the EPPP by carefully defining what professional psychologists do and by linking the examination content more precisely both to the knowledge base and to the practice of the psychologist. Other research designed to demonstrate external criterion-related validity is in progress. Proposals for further studies are being solicited from major psychological research firms.

#### THE INTERSTATE REPORTING SERVICE

An Interstate Reporting Service has been established to facilitate the endorsement of certificates and licenses among states and provinces. The Service maintains a permanent record of EPPP scores for those candidates who choose to register. At a candidate's request, the Service will report the score, accompanied by normative data such as to assure equitable comparison of scores over time and across test forms, to the board of another state or province in which the candidate seeks licensure or certification. Candidates may request registration of their scores with the Service at the time of examination or any time thereafter. The Interstate Reporting Service registers only scores from the EPPP. Other requirements for licensure in the states or provinces are determined by the individual boards.

The Interstate Reporting Service is maintained by PES. To register their EPPP scores, candidates should write to the Interstate Reporting Service, Professional Examination Service, 475 Riverside Drive, New York, New York, 10115, indicating the date and place of examination and their unique identification number assigned for the examination. Forms for this purpose are available at the time the examination is administered or can be obtained from the service at the above address. Candidates who do not remember their identification number should inquire of the board in the state or province where they were licensed or certified. Once a score has been registered, the candidate may at any time thereafter request that this score be reported to another state or provincial board. The fee for initial registration of the score is \$30.00; the fee for reporting the score to another board is \$7.50 for each report made.

#### FURTHER INFORMATION

For information about procedures and requirements for licensure and scheduling of examinations, a candidate should write to the Secretary of the psychology licensing or certification board in the state or province in which licensure or certification is being sought. A listing of addresses of state and provincial boards is published annually in the June issue of the American Psychologist.

### SAMPLE QUESTIONS

- A. The approach to behavior problems which attempts to reduce anxiety through the elicitation of a response incompatible with anxiety is known as:
1. operant shaping.
  2. reciprocal inhibition.
  3. Pavlovian conditioning.
  4. conditioned reflex therapy.
- B. A test of adjustment is administered to 100 subjects and those scoring in the bottom 10% are selected for intensive therapy. Following the conclusion of therapy, the test is readministered and an improvement in scores is noted. Such an improvement in test performance would probably be expected even without therapy because:
1. there has been a lapse of time between the first and second administrations.
  2. such tests are notably unreliable, particularly when based on small samples.
  3. regression of scores toward the mean is to be expected as a purely chance phenomenon.
  4. the range for which the test was designed has been restricted by the method of sampling.
- C. Which of the following descriptive features of a distribution of scores on a psychological test is not affected by adding a constant of 10 to each score?
1. the standard deviation.
  2. the geometric mean.
  3. the arithmetic mean.
  4. the median.
- D. You join the staff of a community mental health center. A fellow psychologist who is also a member of APA is listed in the center's literature as having a doctorate. You know he does not, you should:
1. discuss the situation with your colleague and indicate that presenting unearned credentials is unethical.
  2. tell your colleague to finish his degree.
  3. report the situation to the board of ethics of the local psychological association.
  4. inform the local newspaper of this falsification.

Answers: A. 2 B. 3 C. 1 D. 1

## EXAMINATION COMMITTEE

The Examination Committee is appointed by the Executive Committee of AASP. Its members are chosen for their outstanding abilities and achievements in their specialties and provide representation from major areas of the field. The current members of this committee are:

Ralph Mason Dreger, Ph.D.  
Louisiana State University  
Baton Rouge, Louisiana

Paul J. Hoffman, Ph.D.  
Cogitan  
165 University Avenue  
Palo Alto, California

Roger A. Myers, Ph.D.  
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Columbia University  
New York, New York

Wilbur K. Rigby, Ph.D.  
Community Mental Health Center  
Mission, Kansas

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St. John's University  
Jamaica, New York

Raymond R. Shrader, Ph.D.  
University of Tennessee  
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William G. Steiner, Ph.D.  
Bradley University  
Peoria, Illinois

Michael Wertheimer, Ph.D.  
University of Colorado  
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### PES Staff Members:

Craig G. Schoon, Ph.D.  
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I. Leon Smith, Ph.D.  
Vice President for Programs

Shanna Richman, Ph.D.  
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Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

PSYCHOLOGICAL ASSESSMENT OF MILITARY CRIMINAL DEFENDANTS

David Shapiro  
Washington, D.C.

A brief description of the "Expert Witness" prepared by Vaughan E. Taylor and Major Owen D. Basham was suggested as useful guidelines.

EXPERT WITNESS

BE AWARE THAT:

(1) Not only an expert in his field, but probably also an "expert witness" because of having testified often, but jury has no sympathy for the expert when you attack him.

(2) Their very "self" is on trial; staked to the proposition they are supporting.

(3) The burden of proof in discrediting them is on the opponent because juries give their testimony a presumption of validity

+  
in criminal trial the jury has natural sympathy for the victim = a desire to give victim redress + to protect society.

(4) Lawyer must be prepared to defend or challenge the expert's:  
knowledge, recollection, perception, conduct, interest and logical mode of reaching conclusions.

PRETRIAL PREPARATION:

(1) Immerse yourself in the literature and the jargon.

Experts correctly believe that professional jargon adds credibility and lends support to their testimony.

(2) Interview all your experts and your opponent's experts very early.

(a) Help your experts come to a unified conclusion.

(b) Discover discrepancies among opponent's experts -  
THEN DEPOSE or TAPE them.

(3) Correlate and cross-index the information gathered.

Make summaries of every material fact as related by each witness and cross-reference them for discrepancies.

Details should be obtained early and the witness must be committed to those facts upon which he will base his conclusion, so that he cannot later color his testimony to meet the developing logic of cross-examination when and if it becomes apparent.

(4) Discover what kind of a person the witness is:

Educational background--philosophy of professors; cultural biases, etc.  
Prejudices.

DEMEANOR--speech, dress, mannerisms, etc. General demeanor of a witness sticks in the mind of the jury more than the specifics of his testimony.

Here you PICK the witnesses for your case.

FOUNDATION:

Stipulate that your opponent's witness is an expert if he has good credentials. Don't, if they are weak.

Stipulate that your witness is an expert only if his credentials are weak.

College--where he went, how he did.  
Graduate school--where he went, how he did.  
Where practically trained--under whom?  
Publications.  
Major accomplishments.  
Experience in field.  
Whom did you study under?  
What have you published?

CROSS-EXAMINATION:

Goal: Not to convince witness of error or to impose humiliation, but to expose weaknesses by showing:

lack of preparation.  
reliance on incomplete or incorrect data.  
bad reasoning.  
bias.

HOW TO DO IT:

You can attack the witness,  
You can attack his story,  
or  
Both.

I. Attack on the expert himself.

(1) Inadequacy of his qualifications.  
Internist vs. neurologist.

(2) Number of examinations he has made for a particular side and  
is he a "professional witness" for that side.

Have you testified before?

How many times?

Did you ever testify that an accused lacked substantial capacity  
to appreciate the criminality of his conduct or to conform his conduct to  
the requirements of law.

(3) Inadequacy of examination, research, data, etc.

(4) Fee. Only go into this if exorbitant or if your witnesses were  
asked about it. Good response: "I'm not being paid to testify, I'm being  
paid for my time away from work at the same hourly rate I charge my patients."

(5) Institutional bias. Predisposition to make a finding, e.g.,  
psychiatrists' need to feed people into their hospital.

II. Attack on the substance of the expert's testimony = heart of cross-  
examination.

BE AWARE:

Sophisticated oral testimony is absorbed by jury at very low level.

|           |             |        |   |                                    |
|-----------|-------------|--------|---|------------------------------------|
| MUST USE: | models      | graphs | } | 70% of<br>learning<br>through eyes |
|           | lists       | charts |   |                                    |
|           | photographs |        |   |                                    |

that can go into jury deliberation room.

METHODOLOGY.

(1) At the beginning, before there is any animosity, get in books or  
articles that support your position by having the expert acknowledge them  
as authorities.

FRE 803('9).

(2) Control the examination.

Short, plain, leading, factual questions.

These lead to all 3 qualities of EFFECTIVENESS: momentum, impact, and control.

Demand specific answers.

Advance only 1 point at a time, eliciting one fact at a time through unambiguous leading questions.

Yes or no answer.

A yes answer is preferable because it will sound more like a series of admissions. You will be "testifying" with the witness reduced to agreeing.

Pin the witness down on how he reached his conclusions.

(3) Bring out facts that favor your side first.

(4) Elicit damaging information that is important to the entire case and can be used to damage testimony of other opposing witnesses.

(1) Neutralize his impact: ADMISSIONS AND CONCESSIONS.

(a) Ask him to agree to a series of general principles, then,

(b) Ask short questions that relate directly to the expert's theory of the case, phrasing your questions in the language of one of your witnesses (hopefully previous) or language of your opening statement.

You get concessions that are more apparent than real.

If your questions are skillfully put, the witness must agree or appear biased.

This shows that the witness is in part for the opponent, but in part for you too.

(2) Attack on foundation or conclusions of witness.

(a) Expert's acquaintance with specific facts of this case.

(b) How long was the examination, how thorough, and under what conditions?

1 Investigative omissions:

a Ask if a test exists that he didn't use.

b Then ask him if he used it. (don't ask why.)

Jurors want complete investigation.



2 Was hearsay data used? If so, attack its accuracy.

3 Attack amount of research.

4 Attack methodology.

5 If at trial he added something not in his written report, build up the report as something designed to inform others and to him help keep from forgetting details.

(4) Impeachment by use of:

- (1) Prior testimony.
- (2) Depositions.
- (3) Statements.
- (4) Writings.
- (5) Interrogatories.
- (6) Learned treatises:  
MRE 803(18)

A TECHNIQUE. The question, the answer to which is immaterial.

(7) Testimony of other witnesses. (2 cases)

(4) Stretchout technique:

Single question can be stretched into several questions for greater impact.

Rape example: You didn't do anything to resist, did you? SCREAM, SCRATCH, PUSH, KICK, etc.?

Collateral cross-examination. Witnesses are often prepared on central issue; ask instead for details on the outer fringes of the case. This may result in inconsistencies.

It can range from a subtle discrediting of expert's ability, to a demonstration of bias, or interest.

It can be the most devastating of all cross-examinations because it puts into question the integrity of opposing counsel for having called such a witness.

Experts only give opinions.

2 different opinions = reasonable doubt.

But in sanity area, a tie goes to Government because jurors hate the insanity defense.

## PSYCHOLOGY IN THE COMBAT ENVIRONMENT

Frank H. Rath, Jr.  
Psychology Consultant, 7th MEDCOM

Larry H. Ingraham  
Commander, Medical Research Unit - Europe

A. David Mangelsdorff  
Health Care Studies Division  
Academy of Health Sciences

### PROBLEM

AMEDD, to include psychology, psychiatry and social work, has acted on the assumption that organizationally and individually we understand the nature of psychiatric casualties and are prepared to prevent and manage psychiatric casualties in a combat environment. Review of 20th century military history and lack of training for most current active duty mental health professionals indicates that we neither understand nor are prepared.

### OBJECTIVES

Provide key personnel, to include training staff of the four internships and division psychologists, with: (1) pragmatic conceptualizations of the psychiatric casualty problem, (2) materials and procedures for educating others; and (3) key issues in training mental health items to function in combat.

### METHODS/SALIENT ISSUES

- I. Review of the spectrum.
  - A. What are we talking about - Rath and Ingraham.
  - B. One psychologist's experience in AMEDD - Rath.
  - C. Participants share their expectations.
  - D. Review of stress reactions of military persons - Mangelsdorff.
  - E. Presentation of two films (on Videotape), "Combat Psychiatry" and "The Division Psychiatrist" - Ingraham.
  - F. The combat effectiveness continuum - Rath.

II. Training needs and processes.

- A. Participant discussion.
- B. An Israeli model - Ingraham.
- C. Current USAREUR thinking - Rath.
- D. Planning for internship, AHS, and division mental health team training - all.

BIBLIOGRAPHY

See, this volume, Rath. "Psychiatric Casualties in Future Conflicts: Estimates, Management and Treatment" and Mangelsdorff "Stress reactions of military personnel."

AD-P004 085

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

## STRESS REACTIONS OF MILITARY PERSONNEL

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The primary goal of the Army Medical Department is to preserve the fighting strength of the forces. Stress reactions of military personnel during times of armed conflicts have had a long history. The labels used to identify the behaviors and symptoms have varied as have the methods of treatment. Rather than dwell on the similarities (or differences) between the diagnostic labels used over time, this report will employ the general concept of "stress reactions" to cover individual responses. There have been some general techniques of treatment which have been recognized as effective in restoring the soldiers to duty. Unfortunately, these treatment principles appear to be forgotten during the years of peace between the conflicts.

There have been histories written for each of the armed conflicts in which the United States has participated. Medical sections were included for The War of The Rebellion (Woodward, 1870), The World War, volume X, Neuropsychiatry (Bailey, Williams, Komora, Salmon, and Fenton, 1929), Neuropsychiatry in World War II (Glass and Bernucci, 1966; Glass, 1973), and Vietnam Studies Medical Support 1965-1970 (Neel, 1973). Collections of abstracts of the published journal articles describing recognition of symptoms, diagnoses, treatments employed, as well as the effectiveness of the interventions, were made available by N.D.C. Lewis and B. Engle (Wartime Psychiatry, 1954) and by M.W. Brown and F.E. Williams (Neuropsychiatry and The War, 1918). Some of the classic writers on the subject of neuropsychiatry have included: Salmon, Bailey, Fenton, Glass, Grinker, Appel, Hanson, Ranson, Bourne, Bey, Hausman, and Rioch to name a few.

Given the limited time available to prepare this work, an attempt was made toward discerning principles and recognizing why the interventions proved effective (rather than documenting all the proponents and opponents of the varying concepts). Further details are available to substantiate the concepts presented.

<sup>This</sup> The report which follows will attempt to document the troops at risk, the incidence of stress reactions under combat and under non-combat conditions, the effectiveness of treatment interventions, the methods effective in prevention, and the experience of replacement procedures for preserving manpower.

## TROOPS AT RISK

There are a number of factors which appear to place a soldier at risk of enduring a stress reaction during times of armed conflict. Troops that have just recently entered the service are much greater risks than soldiers with two or more years of military service. Younger men (under 21) and men over 35 years of age were felt to have greater incidence of neuroses as a result of combat reactions in World War I, though it was demonstrated in 1944 there were no significant age variations in resistance to combat stress for soldiers in combat. Younger men may receive the more stressful assignments within the military. A previous history of emotional instability before entering the service might predispose a soldier to be more susceptible to stress reactions. Troops in positions where the battle lines are static and troops that are subjected to continual bombardment without retaliation are more likely to become neuropsychiatric casualties. The breaking point of the average soldier in Europe during World War II was in the range of 80 to 90 aggregate days of continual combat. Exhaustion has been documented as a significant factor in combat stress reactions. Support units were more vulnerable because of not being able to perceive the usefulness of their work efforts. The following group characteristics: low morale, poor leadership, loss of a leader (particularly for psychiatric reasons), lack of purpose, low group cohesiveness, lack of training or equipment, all contribute to increasing the risk of stress reactions.

## INCIDENCE OF STRESS REACTIONS

Attempts at making comparisons between years for incidence of admission rates for psychiatric conditions are limited. Diagnostic categories change, new labels are employed, different types of groupings are made in each conflict. Statistics only reflect what was recorded, not necessarily what happened. Many stress reactions may have not been admitted. Glass (1966) reports the magnitude of psychiatric disorders in modern warfare from 1917 through 1959 for the following categories: Total psychiatric conditions, Psychosis, Psychoneurosis, and Other psychiatric conditions (to include Character and Behavior Disorders). Admission rates for psychiatric disorders vary directly with the proportion of new members in the services. The rate of admissions for psychoses remained at about 3/1000 strength until World War II then declined below 2/1000 strength after World War II. The rate of psychoneuroses jumped to two-digit figures in war-time periods (see Table 1).

Table 2 is an attempt at consolidating admissions/1000 strength/year during four armed conflict periods. Unfortunately, the disorders labeled in one conflict did not necessarily carry over to the next; nor did the method of recording in which sometimes treatments were reported, while admissions were recorded in other years. The intent is to provide an overview. With increases in Wounded In Action casualties (WIAs), there were increases in the psychoneuroses reported in 1944 and 1945: the stress reactions paralleling an increase in the intensity of the combat.

## INCIDENCE OF STRESS REACTIONS UNDER COMBAT CONDITIONS

Non-effective behavior represents a meaningful adaptation to coping with stress. Combat stress reactions (CSRs) are casualties in that the soldier is physically and mentally unable to perform his duty. The incidence of CSRs is a function of the intensity, nature, and duration of the combat. Under high intensity and prolonged enemy fire, CSRs may outnumber battle injuries. In World War II in infantry battalions, neuropsychiatric admission rates as high as 1600 to 2000/1000 troops/year were observed. In rifle companies in the North African Theatre during the Tunisian, Sicilian, and Italian campaigns, the neuropsychiatric casualty rates reached 1200 to 1500/1000 strength/year. The First Army in Europe had one division that suffered 944 neuropsychiatric casualties out of 1100 total medical admissions, while in eight divisions there was an average of 200 neuropsychiatric casualties out of 482 total medical admissions/year during the first two months after D-Day in France. During that time period (June and July, 1944), the First Army reported 10,081 neuropsychiatric admissions and 55,517 battle casualties, half of whom were classified as serious.

One neuropsychiatric casualty for every four battle casualties has been the accepted ratio for World War I and World War II (Glass, 1966). However, in high intensity conflicts, this ratio certainly will show even greater numbers of CSRs than WIAs. Ingraham and Manning cite a French report on the 1973 Middle East War documenting almost 900 of the initial 1500 Israeli casualties were uninjured stress reactions.

The nature of the combat affects the incidence of CSRs. Combat stress reactions develop where it is advantageous to the individual soldier. In a retreat or when returning from patrol through enemy lines, the incidence of CSRs occurring is low. There is no gain in being psychologically ill; it serves no useful function. In a rapid advance that successfully captures an objective, there are few reported CSRs. The incidence of CSRs on board ship is low. There are few cases reported among prisoners of war. The incidence of psychiatric complications among civilian populations following heavy air raids was negligible.

## INCIDENCE OF STRESS REACTIONS UNDER NON-COMBAT CONDITIONS

It was documented in the Southwest Pacific Theatre in World War II there were more admission for neuropsychiatric conditions per 1000 men strength per year than battle injuries. The factors involved in the Southwest Pacific Area were the tropical climate, monotony of the jungle and environment, and lack of adequate rotational policy. During the Korean War, relatively few psychiatric situational disorders were admitted for troops in the combat support zone. However, troops assigned to the rear echelon group in Korea were somewhat less effective

in their performance than combat support zone or front-line combat troops. The less effective performance was attributed to boredom, frustrations of monotonous living, lack of visible importance in overall effort. Similarly in Vietnam, support units had trouble perceiving the usefulness of their work. Support troops may be more susceptible to stress reactions.

Troops do not have to be present in the combat zone to suffer stress reactions. As far back as World War I, many of the symptoms quoted as "war symptoms" were observed in the home cantonments during training. The change from civilian to military life in itself may be sufficiently stressful for some individuals. It should be recalled that troops that have just recently entered the service are much greater risks than soldiers with two or more years of military service (for having stress reactions).

#### TREATMENT AND ITS EFFECTIVENESS

Stress reactions in or out of the combat situation represent adaptive mechanisms for coping with what might be termed abnormal circumstances. If troops expect that breaking down in combat is indicative of being mentally ill, the manifestations of that suggested expectation may take the form of stereotyped, abnormal behaviors. Psychiatric labels for stress reactions may lead both the combat group and the treatment providers to expect bizarre types of behavior. However, if the combat group refuses to allow maladaptive responses among its individual members, non-effective behaviors in response to stress can be minimized.

The labels used for neuropsychiatric casualties have a powerful suggestive influence upon the health care providers as well. If combat neuropsychiatric casualties are seen as suffering from "shell shock," "psychoneuroses," "war neuroses," or "concussion," it will be difficult to foster the expectation of successfully returning the soldier to duty. During World War II, new terminology was introduced to suggest less pessimistic labels such as "combat exhaustion" and "combat fatigue." These labels suggested a more rapid recovery was possible from a stress response.

Through trial and error, it was discovered that troops who had suffered stress reactions in combat were most effectively treated as near to the front lines as possible, as soon as possible. These troops were reassured and provided the expectations of returning as soon as possible to join their unit at the front. The principles of (1) proximity, (2) immediacy, and (3) expectation were developed during World War I, forgotten between the wars, re-learned in World War II, partially recalled in Korea, and forgotten but re-learned in the 1973 Israeli war.

Knowing the three principles is not sufficient. By being aware of why the principles apply, the health care provider can more effectively help to conserve the fighting strength. Since individual soldiers differ in their vulnerability to stress reactions, a soldier should be considered as an integral part of his group unit. Influence from group cohesion, unity, leadership, previous battle training, and experience help to preserve the individual soldier's effectiveness as part of his group. In stressful situations, the soldier compares himself with similar others who are facing comparable stresses. If the group members will strive likewise to perform effectively. The group dynamics influence the individual's behavior (Festinger social comparison theory, 1954).

Schachter (1962) recognized the importance of cognitive appraisal of physiological responses to emotional situations. If a person is aroused physiologically, what his mind tells him about labeling the situation can influence his emotional response. If the soldier expects to rejoin his group, he will try. Forward therapy can be successful because the casualty still has strong emotional ties to his unit and group identification. The phenomenon of expectancy was first noted in World War I when it was observed that recent psychiatric casualties were quite suggestible. With firm direction, the suggestible soldier could be influenced toward improvement and return to duty. Medical treatment personnel are critical in providing a calm acceptance of the soldier's symptoms. Reassurance that the response is a temporary breakdown in response to the stresses of combat, together with rest and shelter, can produce rapid improvement.

As mentioned, the treatment personnel are critical in fostering and maintaining the expectation that the soldier who has had a stress reaction will recover and return to duty. The treatment personnel must believe the concept and perceive themselves as part of the unit. If the soldier is allowed to be evacuated back, his identification with his unit declines as does his confidence in his own abilities. The medical evacuation of neuropsychiatric casualties leads to the fixation of symptoms and helplessness. The further back an individual is removed through evacuation, the smaller the chance for his return to duty and/or to effective functioning.

In combat, there may be many stress reactions which are taken care of by the individuals in a group unit. In units that have strong group identification, cohesiveness, leadership, and morale--there are few reports of stress reactions. Elite units sustain the individual members' abilities to cope with stress. There are no statistics available for the actual number of stress reactions in combat units. The best available estimate comes from the admissions (which include admissions, carded for record only, and quarters cases). In World War II, Glass (1966) reports "in combat alone, a ratio of one psychiatric



casualty for every four battle casualties has prevailed since World War I" (p. 738). However, factors such as the intensity of the combat, the nature of the combat, and its duration alter the rate of psychiatric casualties. Under high intensity and prolonged enemy fire, CSRs may outnumber battle injuries. The 1:4 ratio appears just too small for the expected stresses of the projected future conflicts.

Estimating the number of CSRs becomes important in considering the manpower available for replacement. With immediate, effective forward treatment, a proportion of the CSRs can be returned to duty. Bailey (1918) describes the French effectiveness with the use of painful electric shock in returning up to 90% of their psychiatric casualties. Appel, Beebe, and Hilger (1946) report ranges for the effectiveness of forward treatment for World War I as 40 to 70% of the combat psychiatric casualties were returned to some type of duty in forward areas; while for World War II 40 to 60% of the psychiatric casualties were returned to full combat duty, while 20 to 40% of the combat psychiatric casualties were returned to some non-combat duty (p. 198). Bartemeier (1946) suggests returns to combat duty of up to 50% from the Battalion Aid Station, with from 25 to 30% additional returns to combat duty from the Division Clearing Station and Evacuation Centers. Psychiatric casualties could be helped up to 24 hours at the Battalion Aid Station and for up to five days at the Division Clearing Station. Simple treatment regimens of rest, food, shelter, reassurance, and positive expectations are best employed.

Emphasis is treatment as far forward as possible. Separate channels are to be maintained for the movement of combat stress reactions to be distinguished from WIAs. Upon arrival at a Battalion Aid Station or Brigade Area/Clearing Station, it will be impossible to accurately diagnose soldiers. Careful observation of the soldiers will allow for determining which management procedures can be employed. Rest, food, relative safety, positive expectations of return to effective functioning in combat, opportunities for ventilation about combat experiences, directive counselling focusing on symptom alleviation, and reassurance should be employed. The soldier, his unit, his peers, the treatment personnel must all expect and assure the CSR he will return to duty.

#### PREVENTION

The most effective means of prevention is to create conditions of high unit morale and cohesiveness. This can be accomplished through effective training, leadership, realistic expectations, and frequent interactions with treatment personnel. Individuals and units must know what is expected of them; individuals must be aware of what types of stresses they may experience and be prepared through continual training to develop emotional-sustaining behaviors to cope with these situations. Mental health officers and enlisted personnel must actively take part

in the training. Mental health personnel must properly educate commanders, NCOs, and their units of the possibility of stress reaction symptoms as normal responses to abnormal situations. The mental health personnel must be perceived as part of the unit and be actively involved in the combat division training.

Unit members must be supportive of one another in stress situations, whether in realistic training or in combat. Well-practiced behaviors (immediate action drills) must be automatic responses in stress situations. Non-effective behaviors may cause needless loss of life. Preventive education and mental health consultation can make the difference in making available manpower replacements.

Units must expect to take care of their own members in stress situations. Individual combat stress reactions that cannot be handled at the local unit level by the NCOs or unit commanders should be sent to the Battalion Aid Station for rest, observation, and limited psychotherapy. A mental health officer at the Division Clearing Station should be employed as a consultant to the more forward treatment areas.

### REPLACEMENTS

The majority of individuals suffering stress reactions will serve as their own replacements. However, should replacements be required for those killed in action, a few guidelines may facilitate the transition of the newcomers into units. If possible, replacements should have the opportunity to train together for from ten days to two weeks before being sent forward as a unit. The training as a group will enhance self confidence and promote unit objectives. Individual replacements are at greater risk for becoming casualties because of the stress of transition into a unit. Rotational policies might prove more effective for units rather than for individuals.

### RECOMMENDATIONS

Prevention is the most effective means of dealing with stress reactions; it involves educating the individual soldiers, their commanders, and the mental health personnel as to the dynamics of coping with stress situations through the principles of proximity, immediacy, and expectancy. Realistic training and continual practice will allow individual soldiers to develop into cohesive units. Well learned emotional-sustaining behaviors may make the difference in the number of stress casualties. Units should expect to develop their own support mechanisms to help individuals cope. Mental health professionals should be included as part of the training program, particularly in preventive and consultative roles.

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Table 1

## LESSONS LEARNED

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TABLE 66.—Admission rates for psychiatric conditions by broad diagnostic categories and year 1917-59<sup>a</sup>

(Rate expressed as number of admissions per annum per 1,000 average strength)

| Year      | Diagnostic categories |           |                |                              |                   |                                            |
|-----------|-----------------------|-----------|----------------|------------------------------|-------------------|--------------------------------------------|
|           | Total                 | Psychosis | Psychoneurosis | Other psychiatric conditions |                   |                                            |
|           |                       |           |                | Total                        | Mental deficiency | Character and behavior disorders and other |
| 1917..... | 9.9                   | 2.7       | 3.4            | 3.8                          | 2.4               | 1.4                                        |
| 1918..... | 20.4                  | 3.3       | 9.9            | 7.2                          | 4.1               | 3.1                                        |
| 1919..... | 11.3                  | 2.6       | 5.9            | 2.3                          | 1.2               | 1.6                                        |
| 1920..... | 12.8                  | 3.7       | 5.0            | 4.1                          | 1.9               | 2.2                                        |
| 1921..... | 10.6                  | 3.1       | 4.1            | 3.4                          | 1.5               | 1.9                                        |
| 1922..... | 10.0                  | 3.2       | 4.3            | 2.5                          | .3                | 1.7                                        |
| 1923..... | 11.1                  | 3.7       | 4.0            | 3.4                          | 1.3               | 2.1                                        |
| 1924..... | 12.0                  | 3.8       | 4.2            | 4.0                          | 1.4               | 2.6                                        |
| 1925..... | 11.8                  | 3.7       | 3.7            | 4.4                          | 1.6               | 2.8                                        |
| 1926..... | 11.5                  | 3.5       | 3.8            | 4.2                          | 1.5               | 2.7                                        |
| 1927..... | 12.4                  | 3.6       | 3.7            | 5.1                          | 2.1               | 3.0                                        |
| 1928..... | 11.7                  | 3.7       | 3.2            | 4.8                          | 2.2               | 2.6                                        |
| 1929..... | 11.6                  | 4.0       | 2.9            | 4.7                          | 1.9               | 2.8                                        |
| 1930..... | 10.4                  | 3.6       | 2.8            | 4.0                          | 1.3               | 2.7                                        |
| 1931..... | 9.5                   | 3.9       | 2.3            | 3.1                          | .7                | 2.4                                        |
| 1932..... | 8.2                   | 3.1       | 2.4            | 2.7                          | .4                | 2.3                                        |
| 1933..... | 7.8                   | 2.6       | 3.1            | 2.1                          | .4                | 1.7                                        |
| 1934..... | 9.5                   | 2.9       | 3.9            | 2.7                          | .5                | 2.2                                        |
| 1935..... | 9.3                   | 2.9       | 3.2            | 3.2                          | .8                | 2.6                                        |
| 1936..... | 9.2                   | 2.8       | 3.4            | 3.0                          | .8                | 2.4                                        |
| 1937..... | 9.2                   | 2.8       | 3.7            | 2.7                          | .4                | 2.3                                        |
| 1938..... | 9.2                   | 2.5       | 3.7            | 3.0                          | .3                | 2.7                                        |
| 1939..... | 9.6                   | 2.6       | 3.7            | 3.3                          | .3                | 3.0                                        |
| 1940..... | 11.2                  | 3.1       | 4.7            | 3.4                          | .5                | 2.9                                        |
| 1941..... | 19.6                  | 3.4       | 11.7           | 4.5                          | 1.2               | 3.3                                        |
| 1942..... | 24.6                  | 3.5       | 16.7           | 4.4                          | 1.3               | 3.1                                        |
| 1943..... | 38.1                  | 2.6       | 29.0           | 6.5                          | 2.1               | 4.4                                        |
| 1944..... | 40.7                  | 2.8       | 29.7           | 8.2                          | 3.0               | 4.6                                        |
| 1945..... | 28.2                  | 2.2       | 21.6           | 4.4                          | .4                | 4.0                                        |
| 1946..... | 15.7                  | 1.9       | 9.3            | 4.5                          | .3                | 4.2                                        |
| 1947..... | 18.3                  | 1.5       | 9.0            | 7.8                          | .3                | 7.5                                        |
| 1948..... | 18.4                  | 1.9       | 7.8            | 8.7                          | .2                | 8.5                                        |
| 1949..... | 16.6                  | 1.9       | 7.0            | 7.7                          | .1                | 7.6                                        |
| 1950..... | 23.6                  | 1.8       | 11.9           | 9.9                          | .2                | 9.7                                        |
| 1951..... | 25.1                  | 2.8       | 12.3           | 10.0                         | .3                | 9.7                                        |
| 1952..... | 16.0                  | 3.1       | 6.9            | 7.0                          | .3                | 6.7                                        |
| 1953..... | 14.6                  | 2.0       | 5.5            | 7.1                          | .2                | 6.9                                        |
| 1954..... | 10.6                  | 1.6       | 4.0            | 5.0                          | .1                | 4.9                                        |
| 1955..... | 10.2                  | 1.5       | 3.6            | 5.1                          | .1                | 5.0                                        |
| 1956..... | 10.0                  | 1.3       | 3.5            | 5.2                          | .1                | 5.1                                        |
| 1957..... | 9.2                   | 1.2       | 3.1            | 4.9                          | .0                | 4.9                                        |
| 1958..... | 8.5                   | 1.3       | 3.0            | 4.2                          | .0                | 4.2                                        |
| 1959..... | 8.1                   | 1.3       | 2.8            | 4.0                          | .0                | 4.0                                        |

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Table 2

Admissions/1000 strength/year

|      | PSYCHOSES |     | PSYCHONEUROSES |      | CHARACTER AND<br>BEHAVIOR DISORD. |     | WOUNDED IN<br>ACTION |       | NON-BATTLE<br>INJURIES |      |
|------|-----------|-----|----------------|------|-----------------------------------|-----|----------------------|-------|------------------------|------|
|      | U.S.      | COM | U.S.           | COM  | U.S.                              | COM | U.S.                 | COM   | U.S.                   | COM  |
| 1918 | 1.6       | 1.3 | 3.0            | 5.6  | 2.7                               | 2.3 |                      |       |                        |      |
|      | Europe    |     |                |      |                                   |     |                      |       |                        |      |
| 1942 | 2.9       | 2.4 | 10.2           | 9.2  | 3.2                               | 2.7 | 0.7                  | 2.3   | 136.0                  | 82.3 |
| 1943 | 2.8       | 2.8 | 13.7           | 12.0 | 2.9                               | 3.3 | 7.4                  | 8.1   | 188.8                  | 85.6 |
| 1944 | 1.9       | 2.5 | 12.3           | 35.1 | 3.4                               | 2.7 | 0.2                  | 172.1 | 102.6                  | 82.6 |
| 1945 | 1.4       | 1.5 | 10.1           | 22.3 | 2.7                               | 3.5 | 0.1                  | 84.3  | 80.0                   | 86.4 |
|      | Viet Nam  |     |                |      |                                   |     |                      |       |                        |      |
| 1965 | 1.6       | 1.6 | 1.5            | 2.3  | 2.0                               | 3.1 |                      | 61.6  |                        | 67   |
| 1966 | 2.1       | 1.4 | 2.0            | 2.5  | 2.4                               | 2.8 |                      | 74.8  |                        | 76   |
| 1967 | 1.8       | 1.7 | 1.9            | 1.3  | 2.1                               | 2.9 |                      | 84.1  |                        | 69   |
| 1968 | 1.9       | 1.8 | 1.9            | 2.2  | 1.8                               | 3.7 |                      | 120.4 |                        | 70   |
| 1969 | 2.4       | 3.4 | 1.6            | 1.9  | 1.8                               | 4.2 |                      | 87.6  |                        | 63   |
| 1970 | 3.2       | 3.8 | 1.9            | 3.3  | 1.7                               | 8.4 |                      | 52.9  |                        |      |

MANAGING AN ARMY COMMUNITY MENTAL HEALTH ACTIVITY

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PURPOSE

As AMEDD psychologists achieve higher military rank and experience practicing within the Army environment in the 1980's, they are more likely to be selected to serve as Chief of a CMHA. Other than OJT, there is no formal educational process to prepare the psychologist for this role. This seminar is designed to acquaint the potential or actual chief with the procedures and regulations which impact on managing an Army Mental Health Clinic. This audio-visual presentation also utilizes handouts, providing the participants with numerous documents relevant to the effective management of a CMHA.

- I. Brief history of the evaluation of the modern CMHA concept.
- II. Design, purpose and staffing of a CMHA. Examination of various military populations served and the role of the CMHA.
- III. CMHA Missions:
  - a. Direct patient care (evaluation, treatment, and/or referral).
  - b. Command consultation.
  - c. Research.
  - d. Training and supervision.
  - e. Administration (paperwork and meetings).
  - f. Special programs (i.e., sexual assault, weight control).
  - g. Other military duties/functions.
- IV. Regulations
  - a. Managing a CMHA: HSC Reg. 10-1.
  - b. Enlisted Separations: AR 635-200.
  - c. AFEES Evaluations: AR 40-501 and MEPCOM PAM 40-1.
  - d. Records and Files: ARs 40-400, 40-403, 340-18-9.
  - e. Manpower: DA PAM 570-557, DA Form 140-4 (AR 570-4).
  - f. Staff Efficiency Reports: Officer-AR 623-105, Enlisted-AR 600-200.
  - g. SQT: FM 8-91G 1/2/3/4
  - h. Fitness Standards: AR 40-501.
- V. The role of the CMHA Manager:
  - a. Developing staff roles to assist in the management of the CMHA.
  - b. Writing the CMHA SOP.
  - c. Management procedures
    - (1) Staff Career Development.
    - (2) CMHA Administration.
    - (3) Command Relationships.

- VI. Special Programs:
- a. Sexual Assault Crisis Counseling.
  - b. Stress Management Training.
  - c. Single Parent Problems.
  - d. Weight Control Clinics.
  - e. Pain Clinics.
  - f. Human Relation Consultation.

AN EPIDEMIOLOGICAL STUDY OF MENTAL HYGIENE CONSULTATION SERVICE USERS

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There are approximately eight Army Mental Hygiene Consultation Services (MHCS) located in Germany providing consultation and treatment. Knowledge of the users' personnel problems, community stressors as well as the "helping" resources previously used would be useful in the structuring and functioning of Mental Hygiene Consultation Services assets. This study was an attempt to obtain a sample of problems which bring persons to Mental Hygiene Facilities. The survey was done in a Mental Hygiene Consultation Service collocated with a MEDDAC in southwestern Germany. This Mental Hygiene Consultation Services provided Mental Hygiene Consultation and treatment to approximately 20,000 service members and their dependents.

During a successive two month period approximately 120 new users of the Mental Hygiene Consultation Service completed a questionnaire covering demographic, family and current problem areas.

Analysis included precipitating events or referral sources, chief complaints, diagnosis and initial treatment recommendation.



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### CHANGING TRENDS IN CMHA REFERRALS

#### ASSESSMENT OF FORT GORDON CMHA CASE FILES--1977-1979: PRELIMINARY FINDINGS

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During the last few years, there have been a number of changes in the composition of Army recruits. Educational standards have been lowered for men and women and increasing numbers of women have enlisted. On the local level at Fort Gordon, there have been organizational changes in the structure and function of the Community Mental Health Activity. The availability of CMHA case files and curiosity as to the effects the above mentioned changes may have induced in our clinical case load, led to the present research.

The data base for this investigation consists of the case files begun during the years 1977, 1978, and 1979 at Fort Gordon CMHA. The variables evaluated included client age, sex, education level, time in service, rank, type of unit (training or permanent party), reason for referral, source of referral, and number of sessions seen.

Fort Gordon is the home of the Signal Training School for the U.S. Army. The training offered at Ft. Gordon ranges from Basic Training up through the Signal Officer Advanced Course. The school trains approximately 27,000 resident students per year. The post troop population varies between 15,000 - 17,000. Therefore, trainees constitute the majority of post personnel.

I would like to describe the CMHA, since it has undergone significant changes during this period. The CMHA in 1977 was staffed by a psychiatrist, a social work officer, and five Behavioral Science Specialists (91Gs). At that time, the staff's mode of interaction with the training units was basically passive in nature. The staff stayed in the clinic and wrote large numbers of evaluations designed to help commanders discharge problem soldiers. In 1978 the structure and function of the CMHA changed. The change in structure involved the addition of a psychologist and five more 91Gs. The more important change was that of function. Active consultation with unit commanders was emphasized, resulting in regular visits by the staff to the units. The 91Gs moved to the troop medical clinics during sick call hours and conducted triage

interviews of soldiers with psychological complaints. Those with administrative complaints were sent back to the units for appropriate disposition and individuals with significant psychological stress were referred to the CMHA for further evaluation and followup. Thus, the CMHA function has changed to a more active mode that has encouraged interaction with command in the unit areas.

A related development of major significance has been the fact that our CMHA has largely withdrawn from "the discharge business" by educating commanders that predischARGE mental status evaluations are routinely conducted as a part of the discharge physical conducted by the physical exam section. A direct consequence of this change has been to free us to engage in a wider variety of professional consultations on post.

Next, I would like to describe our preliminary findings. Over 90% of the case files were able to be analyzed, resulting in 2,055 cases. The data were analyzed by means of SPSS computer program graciously set up by Dr. Andre Lloyd, who was assigned to Eisenhower AMC during this time.

The first table presents the number of TMC and CMHA visits and case files opened during these years.

The dramatic change associated with the 1978 and 1979 data is related to and caused by the change in function of the CMHA - specifically, the active orientation of the command consultation program.

A number of the demographic characteristics of the clients that might have been expected to change as a function of the changes in Army enlistment standards did not change. The average ages of clients for the three consecutive years was 20.9, 21.7, and 21.1 years. The average educational level remained at 11.5 years. Eighty-three percent of the males and 78% of the females had attended between nine to 12 years of school; 14% of the males and 21% of the females had 13 or more years of education.

The variable of time in service was so consistent across sex and years that the data were collapsed. Sixty-five percent of CMHA clients had fewer than six months of service, 9% had between 7-12 months of service, 7% had between 12-36 months of service, and 19% had at least 36 months of service. Thus, three quarters of the individuals were in their first year of military service.

The breakdown of CMHA cases into permanent party or trainee status is interesting. In both 1977 and 1978, 64% were in a training status and 36% were in permanent party status. In 1979 the trainee case files comprised 42% of the cases and the permanent party members, 58%.

A further chi square analysis of military status and number of cases opened for each year was significant ( $p < .001$ ). The results are presented in figure 1.

The majority of trainees on post were in AIT status. These data represent primarily lower ranking enlisted personnel. An analysis by rank reveals 1% of the files were for officers, 1% for senior enlisted, 82% for E1-E3, and 16% for E4-E6.

A comparison of the referral reason and military status was made; the chi square analysis was significant ( $p < .05$ ). Table 2 presents the data.

Remember that this analysis is of cases opened at the CMHA. During the last two years, prior screening at the TMC's by the 91G's separated out complaints by many trainees who wanted to leave the Army. You may rest assured that the third column of figures does not accurately reflect the numbers who wanted to leave the Army during training.

Comparison of the differential rates of utilization of the CMHA by males and females leads us to the conclusions that of the factors so far examined this one has had the greatest impact on our services and holds the implication for affecting the provision of mental health services throughout the Army.

During this three year period, females comprised between 8 and 12% of the post population. Yet, the percentages of female CMHA cases during these consecutive years were 21%, 28% and 35%. This is clearly an imbalance in sexual representation in cases opened. In examining the number of CMHA visits by sex of soldier, we find that females accounted for an average of 48% of the visits. Comparison of the percentage of post population with this figure reveals that the rate of CMHA utilization is four times higher for females than males.

The pattern of referral sources was compared for males and females to determine if there were relationships in the referral patterns. The  $X^2$  was significant ( $p < .01$ ); males and females were in agreement to the same relative frequency of use of referral categories. See Table 3.

We expected to find that females would utilize self referral more frequently as a means of assisting in either adaptation to demands placed on them by the service or as a means of gaining assistance in leaving the service. The data are clear in disproving this hypothesis. The alternative explanation remains - that females are identified more readily and frequently by the entire range of referral sources as needing CMHA assistance in their personal adjustments while in the military.

The implications of this research for the mental health system in the Army have been alluded to earlier in this paper. Now they should be clear; just as the entry point in any system is the first to experience the effects of a changed input, the rest of that system will experience the changes somewhat later in time.

Figure 1

Number of CMHA Cases by Military Status for Each Year

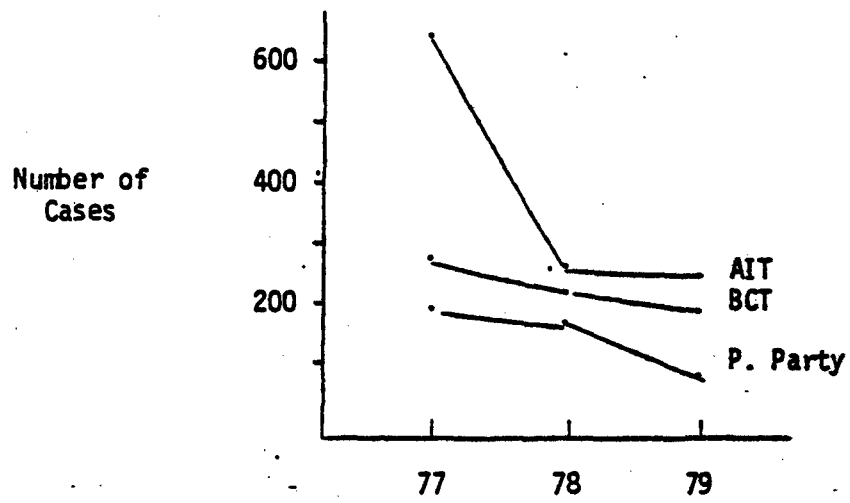


Table 1

TMC and CMHA Visits and Case Files Opened During 1977, 1978, and 1979

| <u>YEAR</u> | <u>CMHA<br/>VISITS</u> | <u>CASES<br/>OPENED</u> | <u>TMC<br/>VISITS</u> |
|-------------|------------------------|-------------------------|-----------------------|
| 1977        | 3342                   | 1064                    | 1256                  |
| 1978        | 2471                   | 567                     | 1484                  |
| 1979        | 2852                   | 412                     | 1937                  |

Table 2

## Comparison of Referral Reason by Military Status

|          | <u>TOTAL<br/>NUMBER</u> | <u>PERSONAL<br/>PROBLEM</u> | <u>TO GET<br/>OUT</u> | <u>HOSP</u> | <u>COMMAND<br/>REFERRAL</u> | <u>OTHER</u> |
|----------|-------------------------|-----------------------------|-----------------------|-------------|-----------------------------|--------------|
| BCT      | 479                     | 45%                         | 18%                   | 2%          | 35%                         | 0%           |
| AIT      | 977                     | 58%                         | 18%                   | 1%          | 22%                         | 1%           |
| P. Party | 337                     | 74%                         | 10%                   | 1%          | 14%                         | 1%           |

Table 3  
Patterns of Referral by Sex

|        | <u>SELF</u> | <u>COMMAND</u> | <u>MEDICAL</u> | <u>CHAPLAIN</u> | <u>OTHER</u> |
|--------|-------------|----------------|----------------|-----------------|--------------|
| Male   | 19%         | 60%            | 18%            | 2%              | 1%           |
| Female | 22%         | 54%            | 22%            | 2%              | 0%           |

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### CONTRACTING FOR CHANGE WITH ADULT OUTPATIENTS

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### INTRODUCTION

I am recommending a contractual form of psychotherapy for working with adult outpatients. My goal in this presentation is to:

- (a.) Define a therapeutic contract *and*
- (b.) Present a practical approach to obtaining one *~*

### ASSUMPTIONS

- a. Treatment can be made more effective by knowing where you are going and figuring out a route for getting there.
- b. The destination must be agreed upon between patient and therapist.
- c. Once the destination is determined, it is the therapist's responsibility to use the most effective route for getting there.

### RATIONALE FOR CONTRACTUAL FORM OF PSYCHOTHERAPY

(Hare-Musten et al., Rights of Clients, Responsibilities of Therapists, American Psychologist, Jan 1979, Vol 34, No 1, 3-16)

- a. Historically, the ethical standards were developed to protect the professions, by permitting self-regulation, from regulation by outside agencies. Protecting the rights of clients was of secondary importance.
- b. Two important trends make it mandatory for practitioners to extend their thinking about the ethical standards. One is the recent emphasis on the rights of consumers, including consumers of psychological services. The other is the increasing involvement of the judiciary in determining the rights of clients receiving mental health care.



c. The ethical standards place the responsibility for clients' rights on therapists. There are several reasons for this. First, persons entering therapy do so in a help-seeking posture, not a self-protective one. In an emergency, the need for immediate support and reassurance takes precedence over the preservation of dignity. The client is in a poor position to negotiate. Second, the therapy situation is a novel one for most clients. They do not know what role to assume and they do not know their rights. Mystification of the therapeutic process intensifies clients' dependence on their therapists and lowers their ability to assert their rights.

d. Open communication about the methods and goals of therapy can encourage realistic expectations about treatment and outcome.

e. Training should foster an image of clients as powerful, responsible adults and inculcate a sense of responsibility in therapists for clients' rights and dignity.

f. Psychotherapy is typically sought by people who feel inadequate, who are unable to cope with problems in their lives, who feel anxious or depressed. The therapy relationship traditionally reinforces these feelings by emphasizing the competence of the therapist and the incompetence of the client. The process of providing information and obtaining agreement through the use of a contract defines the therapeutic relationship as a mutual endeavor to which the therapist contributes knowledge and skill in psychology and to which the client brings specialized personal knowledge and a commitment to work on his or her problems (Adams & Orgel, 1975; Schwitzgebel, 1976; Sulzer, 1962). Developing a contractual agreement is a negotiation between partners.

#### DEFINITION

(Woolams and Brown, The Total Handbook of Transactional Analysis, Goulding and Goulding, The Power is in the Patient). A treatment contract is an explicit, bilateral commitment to a well defined course of action...It is an agreement between the patient and the therapist to accomplish a clearly stated goal. The patient states an intended change, and the therapist agrees to work with the clients to effect that change...Important to have the treatment contract clarified as soon as possible, since the contract is an indication that both the patient and therapist are actively working toward the same goal.

N.B. Unless patient and therapist agree on change, little will happen. The treatment contract helps assure that the patient is actively involved in changing. This is crucial, since only the patient, not the therapist or anyone else, can provide the energy and motivation needed in order to change. The power is in the patient (Goulding and Goulding).

## A PRACTICAL APPROACH TO OBTAINING A TREATMENT CONTRACT

The following format is useful in contracting for change. Column A enumerates in detail specific areas of dissatisfaction in the patient's life. The therapist might ask: "What are the areas you are concerned about and want to be different in some way?" Column B specifically describes in observable behavioral terms, how the patient wants to be when he successfully completes his work in therapy.

Contract Specification (AB Diagram) in three behavioral areas.

| A                                                                                                                             | B                 |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <u>Feelings:</u> What feelings are you experiencing that you are not satisfied with?                                          | <u>Feelings:</u>  |
| <u>Thoughts:</u> What are you thinking and telling yourself to produce these feelings (Give clue as to existential position)? | <u>Thoughts:</u>  |
| <u>Behaviors:</u> What are you doing? What behaviors are you carrying out as a result of thinking and feeling this way?       | <u>Behaviors:</u> |

a. People tend to block on one of the three areas: feelings, thoughts, or behaviors. It is very useful to listen for this when client is contracting. The therapist can enter with client at any point of the triangle by helping client do what they do best, but in depth in a focused way rather than horizontally in a diffuse way.

b. Column B is a blueprint of how patient wants to be "instead" when he has finished his work. Defining that can be difficult for patient and often requires creativity on part of therapist:

- (1) Naive inquiry: "So what's wrong with that?" or "How is that a problem for you?"
- (2) Fantasy: Close your eyes and imagine how you want to be when you finish your work. (Fantasy elicits free child energy.)
- (3) Visible picture: Tell me what you want to be like so I can see it.
- (4) Pretend you have a magic wand and can make yourself just as you want to be.

c. During Column B, check out patient's affect. If he's excited and you are excited, then probability that he's enumerating areas he "wants" to change.

d. Sabotage: How might you stop yourself from accomplishing your good plan? How it is that you are not there now? How do you keep yourself from getting there?

e. Protection: What support do you need in order to accomplish this contract? What nurturing, limit setting, and protecting responses do you want from therapist, spouse, other group members?

N.B. To go across AB line is very scary...feels awkward...so much support, reinforcement, and reassurance needed. Much like baby learning to walk, patient will frequently fall.

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### SENSE AND NONSENSE IN THE ARMY DRUG PREVENTION PROGRAM

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Societal response to crises like the widespread use of illicit drugs follows four phases: denial, recognition, crisis management, and gradual realistic actions to attenuate and solve the problem. With respect to the prevention of drug abuse, the US Army is now approaching resolution of the crisis management stage. In preparation is an extensive revision of the basic regulation, AR 600-85, that holds promise that a little more tinkering with the machinery will assure control of the drug problem in the Army. A recent publication of the DA DCSPER claims the alcohol/drug abuse prevention and control program returned a division equivalent (over 15,000 soldiers) to duty during FY 1979 (a success rate of 68.9 percent).

Both the body count and the proliferation of drug treatment facilities are impressive. Unfortunately, in the hearts and minds of commanders, especially at company and battalion levels, the Army drug and alcohol abuse program has little credibility; they view it as a waste of time that interferes with unit training and equipment maintenance. Despite the claimed success of the program, it is also true that "...since 1977, the Army has been discharging the equivalent of 6 battalions a year on Chapter 9 (Drug & Alcohol) discharges." Local program clinical directors and counsellors are scarcely more satisfied than the commanders. They see themselves as frustrated, ineffectual, and overburdened with administrative requirements. Only at major headquarters does the drug and alcohol prevention effort seem to be the manpower conservation measure it is purported to be.

The next major Army drug epidemic will tell which perspective, that of headquarters or of the field, lays the greater claim on reality. Meanwhile, it behooves us to reflect upon the assumptions upon which the current drug prevention program is built, and to reflect upon the research and clinical experience in dealing with military drug users that has been acquired over the past 10 years. Such reflection is necessary in the slow fumbling search for more realistic solutions to drug use in the military.

The current drug policy assumes that drug use is a continuous problem in the Army. Yet, the nature of the problem and to whom it is problematical is never made explicit. Neither using nor non-using common soldiers accept illicit drug use as their problem (Elephant citation). Company level leaders do not see drug use as an especially important problem for them, either. In USAREUR \_\_\_\_\_ number of company commanders

ranked illicit drug use as 26th out of 37 factors that impact on unit readiness (Farmer citation). These data suggest that "the problem" is most problematical at higher headquarters, especially those agencies most attuned to criticism from the Congress or the executive branches of government.

Illicit drug use is a continuous threat in the Army, but it is not a continuous problem. Illicit drug use is endemic in the Army as well as the society at large. It is characterized by shifting usage patterns from one drug to another. These shifts are largely due to which drugs are available at what price and what usage fads are currently popular (cite Boys in Barracks citation and the last CINC briefing). In USAREUR, for example, heroin use appears to be going down, but the increased use of amphetamine and cocaine leave the overall prevalence of dangerous drug usage the same as the previous quarter. Day-to-day usage is also dominated by availability and price.

Periodically, a local area or military unit experiences a micro epidemic. This means there is a marked increase in the prevalence of use of a particular drug that is usually accompanied by increased incidence of undesirable secondary consequences like overdose deaths, thefts, hepatitis, or even dirty, dishevelled people hanging around the neighborhood. While Army or major command prevalence may remain constant, there are always micro epidemics popping up in battalion and company sized units where availability increases and prices fall (Farmer, CINC briefing).

Occasionally, micro-epidemics spread to include a whole city, major command, or nation. This is called a macro-epidemic. In 1971, when the President declared heroin as Public Enemy Number One, there was a perception that the entire nation was in the throes of a macro epidemic. In the US Army, there have been two macro-epidemics in the past decade. The first was the 1970-71 heroin epidemic in Vietnam followed by the 1974-75 amphetamine epidemic in USAREUR. Through most of the decade and throughout most of the Army, however, drug use has not reached macro-epidemic proportions. Indeed, there have been many micro-epidemics, but to the Army as a whole, drug use has not posed a significant problem with respect to health or performance in the past 10 years. Current policy assumes, however, that drug use is a continuous problem rather than a threat, because the technology for predicting macro-epidemics does not exist, and because the Army is haunted by memories of Vietnam when 20 to 40 percent of the lower enlisted ranks were said to have been addicted to heroin.

Current policy assumes that drug use degrades performance. There is no evidence that the typical pattern of drug use interferes with either garrison or combat performance. The typical pattern of use is recreational, episodic, and opportunistic, again depending upon what is available at what price (Boys in Barracks citation). Drugs are typically used after duty hours or on weekends in small enough doses that untoward effects on the garrison performance are difficult to observe (MED Bulletin Article). A careful review of the literature from Vietnam failed to reveal any evidence that even heroin use interfered with combat performance (Holloway, personal communication). In Vietnam, performance problems resulted from heroin withdrawal, but not heroin addiction. When users withdrew from heroin, they became sick. They were nauseous, had

slight fevers, aching joints, and running noses, not at all unlike mild cases of the flu (Riem citation). However, such soldiers could and did fight when required to, but not optimally to be sure. The lesson from Vietnam is that the best way to deal with addicted soldiers is to ensure that they do not go into withdrawal.

Current policy equates drug use with drug abuse. This definition confuses legal/moral with medical/behavioral criteria, mixes treatment with control issues, and results from the failure to define "the problem" carefully. If "the problem" is illegal activity, then a legal response is all that's required. There is no benefit to treating offenders of the law in the guise of social or medical rehabilitation. It is instructive to note the difference between alcohol and drug abuse as defined in the basic regulation, 600-85. In that regulation, alcohol abuse is defined as "the irresponsible use of an alcoholic beverage which leads to unacceptable social behavior or impairment of performance, health, or personal relationships with others..." (italics added). "Other drug abuse" is defined more succinctly, "the misuse of authorized medication or the illegal use of any drug or chemical substance." In the case of alcohol, use must be irresponsible and lead to undesirable consequences. In the case of illegal drugs or chemicals, simple use, irresponsible or not, with or without undesirable consequences, is abuse. Observations (Boys in Barracks) indicate, however, that most drugs are used recreationally, and the rules for use are strikingly similar to those for social drinking, that is, at times and places unlikely to degrade health, performance, or social relationships.

Current policy assumes that use can be prevented by education and deterred by urinalysis. Some have argued that there is no evidence that people can be reasoned, cajoled, or scared away from self-destructive behaviors (cite Etzioni). The principal outcome of the drug education efforts appears to be smarter users. Effective prevention is only possible when there are technological innovations like vaccinations or enforceable public laws like requiring motorcycle helmets or inspecting restaurant kitchens.

Even if education efforts were effective (some are due to the intensive campaigning and cigarette smoking paying off), drug education efforts would be ineffective in the absence of a consensus on the place of drugs in American society. There are generational differences on what drugs are acceptable and when: older Americans sanction alcohol and tranquilizers, while younger Americans favor marijuana and other drugs. There are differences within generations as many younger Americans endorse the use of most drugs except narcotics, but there are others who find nothing shocking about narcotics use, either. Current Army policy insists that drug education be factual and avoid scare tactics. However, the facts are in dispute. There are too many unknowns for firm generalizations based on scientific evidence. For example, a careful follow-up study of soldiers detected as heroin positive upon leaving Vietnam reported several findings that fly in the face of conventional wisdom (Robins data). Conventional wisdom holds: (1) that narcotic addiction is virtually permanent and very resistant to treatment and (2) the

casual use of heroin is rare and when it occurs, it is only a brief phase on the road to addiction or re-addiction. The study found no evidence to support either of these positions. A study of drug overdose casualties in USAREUR revealed the same pattern; soldiers are apparently able to use heroin recreationally over many months without signs of addiction or impairments to health and performance (USAMRU-E OD Study). These findings strike at the heart of national drug policy. Either the national policy is wrong, or soldiers are in some ways different from the population. In either case, it is difficult to educate about the dangers of use when the facts being presented are incongruent with the individual collective experience of the users.

Current policy assumes urinalysis is a deterrent to drug use. There are logically empirical reasons why this is false. Logically, by definition, deterrence requires a negative consequence upon detection. Most users do not view the worst possible consequences of a positive urine currently imposed by the Army--a chapter 9 discharge--as necessarily undesirable (Face of Waste citation). In many cases, the discharge is sought by soldiers who for one reason or another have become dissatisfied with the conditions of their service. Labelling contract evasion as a drug rehabilitation treatment failure belies the goal of the program as a manpower conservation effort.

Empirically, there is no evidence that urinalysis deters drug use at all. Even in Vietnam when return to CONUS was delayed until the soldier provided clean urines, there was no evidence the urine screen had any discernible effect on use (Robins data). If anything, the screen in Vietnam was more of an intelligence test since those most likely to be detected were low-ranking volunteers who had little education, came from broken homes, had arrest histories previous to service, and had used drugs before entering the Army. Observations made at a CONUS post in the mid '70's confirmed these conclusions. Drug use on post as measured by questionnaires and barracks observations increased while the positive rate on the then-permissive random urine analyses decreased (Marlowe, personal observation). Observation at the urine collection stations suggested why this was so. Users became test-wise, and moderated their use or changed usage patterns to avoid detection. Finally, if urinalysis were a deterrent, prevalence rates should be lower in the Army where analysis is used than in the nation as a whole, where it is not. A comparison between NIDA data and USAREUR prevalence figures indicates, however, that the Army rate of use of detectable drugs is substantially above the civilian rate. There is little doubt, then, that urinalysis is not a deterrent, but a detection method which raises the questions of what do we do with them after we've caught them?

After equating drug use with abuse and implicitly assuming that use inevitably leads to addiction, the current policy goes on to assume that detected users will welcome and cooperate in attempts to treat, rehabilitate, or otherwise reform them. Experienced workers with addictions agree that intervention is most promising when the client has something important to lose if undesirable behavior does not change, or conversely,

something more important to gain if behavior does change. This means the older service members, most often with alcohol problems, have enough years in the Army that they have much to lose by being separated before retirement. Intervention is therefore most promising with this group. This condition does not obtain for younger soldiers, especially for soldiers seeking to avoid service contracts who have more to gain by not changing than by changing. With respect to casual recreational use, there is disagreement as to whether a problem exists ("What's wrong with blowing a little grass?") which provide additional reasons for not wholeheartedly participating in treatment.

Treatment goals are further obscured by current policy assumptions that drug use results from personality defects which results in a "disease" that can be treated and cured. While an individual model might be appropriate for those who get into trouble as a result of drug use, the prevalence of illicit drug use among American youth is so high and widespread that simple use must be regarded as a group rather than as an individual phenomenon. National Institute of Drug Abuse data indicate 65% of the nation's seniors reported illicit drug use at some time in their lives, and 37% of the class of 1979 reported using an illicit drug other than marijuana at some time (1979 highlights citation).

Research within the Army suggests that drug and alcohol use in the military may be more a mark of social necessity than of individual pathology (Boys in Barracks citation). In this view, drug use in the barracks serves to bind soldiers together in the face of high personnel turnover and instability in the social group (Anatomy of Elephant and Drugs, Morale and Social Order). This implies that prevention and treatment are to be sought at the group level rather than with individuals. The consequence of insisting that drug use is an individual, rather than a group phenomenon, is to limit the role of commanders to that of detection and rejection and to absolve them from further responsibilities for monitoring and controlling drug use in their units.

A final bit of nonsense comes from critics of current policy--often line commanders--who plead for more realistic training and time in the field as "the cure" for drug use which they attribute to boredom and the tedium of garrison routine. Such arguments ignore the fact that the worst macro drug epidemic experienced by the US Army happened not in garrison, not in training, but while the Army performed its ultimate mission, war in Vietnam. Research observations suggest leaders persist in this view because field training provides them with "more important things to do" other than worry about drug use in their unit (Boys in Barracks). It is also true that going to the field disrupts normal drug supply channels. In a drug-saturated environment like Vietnam, however, it is safe to predict that American soldiers will avail themselves providing the price is right and there is positive sanction within the peer group to do so.



Faced with such a depressing state of affairs, the temptation is to run up the flag and accept drug use as a fact of life in the Army that is impossible to control. Another alternative is to continue muddling through with the same misguided albeit well-meaning policies and practices with fear and trembling that more of the same will not be enough to stem the next macro-epidemic. A more rational middle course is possible which would recognize:

(1) drug use in the Army is principally a social phenomenon that threatens small unit cohesion, good order, and discipline. It threatens cohesion because it sets the drug using soldiers at odds with soldiers who prefer not to use themselves but who must tolerate use in the barracks, and it sets all of the lower ranking soldiers against the officers and NCOs who are charged with enforcing present policy. Drug use threatens discipline in that use is illegal; a commander cannot ignore the law, but is often hard pressed to enforce it.

(2) drug use threatens individual health and unit readiness. However, the nature of the threat depends upon what drugs, how they are used, with what frequency, and in what combinations. Because of its addictive potential, heroin poses a greater threat than does marijuana, and amphetamines injected with needles pose a greater threat for hepatitis than does amphetamine taken orally. It is important to set realistic goals. Drug use is endemic in American society and in the Army. It can be monitored and to some extent controlled, but it cannot be eliminated. Be it a micro or macro-epidemic, drugs pose a persistent threat that cannot be ignored, but for the most part requires vigilance, not direct action.

(3) appropriate level of intervention is at company, platoon, and squads, not the individual user. By and large, soldiers use drugs with other people (Boys in Barracks and USAREUR OD Study). These people are invariably co-workers, and drugs serve as an interpersonal glue in the face of high personnel turbulence. Therefore, whatever intervention is made must occur in the social group, usually in the squad or platoon.

(4) it follows that the most effective intervention agents are company level leaders, not experts in the drug treatment centers.

(5) a rational alternative to the present policy would be based on a public health model concerned with monitoring critical indicators in the unit. Current technology does not permit greater precision than to say drug use is up, down, or steady but there are multiple indicators upon which to base this conclusion. Critical indicators would include sale and trafficking statistics in the area, and questionnaires of drug prevalence broken out by tactical units. Recent data indicate that drug offenses are highly correlated with other types of crime; therefore, monitoring other provost marshal statistics is important as well (Farmer citation). Other sources of data a commander might use include Emergency Room reports of overdose cases and health clinic reports of

needle use in the unit. Medics at unit dispensaries have a preventive medicine function as well as a treatment function. It is their responsibility to inform the commander whether needle use is up, down, or steady in the unit the same way that they advise the commander on preventing cold weather injuries. The concerned commander would also monitor drug paraphernalia discovered during walk-through inspections in the barracks and continue to rely on directed urinalysis of individuals suspected of hard drug use.

A rational alternative to current policy would emphasize credible unit alcohol abuse prevention program as essential before progress with other drugs can be expected. All are familiar with the argument of younger soldiers, "Why are you coming down on me for using drugs when no one does anything about the alcoholics in the senior ranks?" This is a red herring. Studies show that younger enlisted people drink prodigious amounts of alcohol as well as using other drugs (Cahalen, Boys in Barracks, OD Study). However, in order for any substance abuse program to be successful, it must be credible to all. To begin with alcohol, and to make it clear that inappropriate or illegal behavior will not be tolerated in the unit, is essential for credibility.

A credible unit-level alcoholic abuse program might include a goal on the part of the battalion commander of having at least one person each year treated for alcohol abuse and returned to duty within the battalion. A company commander might reasonably seek to identify an active alcoholics anonymous member as a resource about their own drinking habits or who need someone to lean on during their recovery process. Battalion and company commanders need to set unit standards as to unacceptable behavior while under the influence of alcohol and other drugs. Unacceptable behaviors might include driving while intoxicated on a military reservation, appearing for duty under the influence of alcohol, or drinking during duty hours.

Like any other behavior, drinking is controlled by time, place, and circumstances. Drinking at a commanders formal reception is quite a different matter than drinking at a beer bust when the unit returns from the field. A credible unit level alcohol prevention program would stress activities where excessive drinking is discouraged. The inclusion of families whenever possible at unit functions serves two purposes. It requires different drinking behavior with less fall-down-and-crawl-out consequences, and the inclusion of women and children increases the web of acquaintance and assists in building cohesion within the unit.

A rational alternative to the current policy would include a responsive, responsible medical system at the unit level to help insure that no soldier dies from drug or alcohol overdose. Studies of drug overdose casualties in Europe indicate the victims could often have been saved had there been first aid available. On a unit level, this means putting priority on buddy aid in the barracks to include cardio-pulmonary resuscitation techniques. The greatest difficulty in teaching first aid is building motivation. The possibility of a buddy dying from a drug overdose, rather than the more remote combat wound, should be exploited. In addition, the symptoms of a drug overdose casualty are not all that unlike those of chemical attack victims.

Another suggestion at the unit level is to distribute narcotics antagonists to unit medics for use in emergencies in the barracks. Narcotics antagonists have the ability to save lives when properly administered, but do little harm when improperly given. The brighter unit medics are already pilfering these drugs from dispensaries. It is to the Army's advantage to issue them as a means of saving lives and also practicing drug inventory control at the unit level in garrison.

Studies of drug overdose casualties in Europe indicate many cases where soldiers were put to bed under the assumption (often correctly) that they were drunk. Later, the victim vomited, choked, and subsequently died. The commander serious about providing responsible, responsive medical treatment in the unit would make it a matter of SOP that individuals unconscious for any reason would not be left unattended. It would then be CQ, unit medic, and buddy responsibility to monitor the victim until danger passed. Failure to discharge this responsibility would then be liable for non-judicial punishment under dereliction of duty provisions. The present policy of CQs or buddies checking on an unconscious victim every 20 minutes simply assures that the victim will be dead no more than 20 minutes before found. The third response to endemic drug use must be continued refusal to tolerate illegal activities of any kind that undermine good order and discipline. Contraband, paraphernalia, and illicit drug use in the unit cannot be tolerated. This requires officers and non-commissioned officers who know the rules for proper conduct of search, seizure, and prosecution operations. It also implies placing responsibility for drugs and paraphernalia in common areas to all soldiers responsible for those areas. If drugs or paraphernalia are found in common areas of the barracks, then all individuals who occupy that area must be held responsible. This is the only way to move ownership of the problem away from major headquarters, away from the drug treatment facilities, to the casual users and non-users who tolerate use in the barracks.

With respect to endemic usage, the commander can achieve much by simply seizing and destroying illicit drug supplies without worrying about prosecution. Day-to-day endemic usage is much like command bans on liquor in the barracks. It is forbidden, yet it comes into the barracks. Often a commander can have greater effect by simply confiscating or smashing a bottle of booze than trying to take more formal action. The same can be said for the confiscation of paraphernalia and the destruction of illicit drugs found in common areas. The objective is to demonstrate vigilance and raise the costs of usage.

A rational alternative to the current abuse prevention policy would encourage small unit leaders to concentrate on improving cohesion in their units. Again, this is directed at broadening group norms across ranks which will include acceptable drug and alcohol standards. Cohesion can be improved by all ranks after duty activities, all ranks unit athletic programs, all ranks unit dining, and a carefully designed welcome and orientation program. Casual individual drug use patterns will

not change until group social patterns change. An appropriate role for the unit drug and alcohol education specialist is the monitoring of informal social groups in the unit, the provision of alternatives in the form of athletics and recreation programs, and the conduct of the unit welcome and orientation program for new members. A useful additional payoff for improving unit cohesion is an improvement in garrison military performance that has recently been documented (Manning & Trotter citation).

A rational alternative to the present policy would define epidemic use (either micro or macro) as a doubling of the base line indicators like drug traffic in the unit, needle use in the dispensary, overdose cases in the ER, or drug-related crimes on the PMO blotter. Evidence of an approaching epidemic would alert the commander to step up monitoring and control activities with such measures as (1) frequent and more rigorous health and welfare inspections, (2) explicit inspections for drugs to include the use of dogs, (3) unit urinalyses and breath analyses for blood alcohol levels for all personnel, (4) a request for increased military police/CID surveillance in the unit, (5) requesting an organizational effectiveness consultation to assess unit climate and communication patterns aimed at getting specific recommendations for improving unit cohesion, and (6) consultation with a drug/alcohol professional on the seriousness of the threat and alternatives to counter it.

What do we do with them after we catch them? A rational alternative to the present policy would include three steps when individuals are known to be using illegal drugs. The first is a legal recourse with formal punishment meted out whenever possible. The object, like the present policy, is to drive up the cost of casual use. No further medical or behavioral research and development on drug use in the Army is needed, but some legal R&D attuned to the requirements of commanders to maintain good order and discipline is required.

The second step for individuals identified as drug users but for whom legal recourse is not feasible is to require the commander to work out a unit response. The commander may choose to consult with the local drug/alcohol director, but both the course of action and responsibility for implementing it must remain in the unit, not at the drug and alcohol rehabilitation center. The commander should have 3 options open. The first is increased individual training in the unit, preferably on weekends or after normal duty hours. In the case of paraphernalia in the room, or finding marijuana stuffed in the bedpost, drug use might be treated as an escape and evasion exercise. If one is caught, more training is in order. Since there is no evidence that any strategy has much success in "curing" casual, recreational drug use, three thousand push-ups a month under the direction of the ISG, or long walks in chemical protective gear stands as good a chance of success as dispatching the individual to the CDAAC.

In the case where there is drug use in common areas in the barracks, or the workplace, increased group training (no higher than squads or sections) is in order. For soldiers to survive in battle, they must be responsible for each other. If they cannot evade the suspicion of the commander with respect to illicit drug use, they will probably be much better at evading an enemy on the battlefield. More training is therefore in order. A third option a commander might have is to enroll the detected users in a live-in/work-out halfway house program where soldiers work in their units during the day and return to a rigorous military regime much like the current community correctional facilities at night. The technology does not exist to induce soldiers to give up casual drug use, but ways to train them to be better soldiers are well known, and should be the primary emphasis.

In the case of medically defined addiction, or self-admitted dependence, soldiers ought to be offered a choice: (a) a discharge under less than honorable conditions, or (b) detoxification in medical facilities with return to duty. There is nothing that anyone can do to, with, or for the dependent or addicted individual that he cannot do for himself. Assistance may be required in budgeting money, paying off past debts, meeting new friends, joining new activities, or getting a divorce, but a drug rehabilitation center is not required for this. A rational alternative to the present policy would abolish the present CDAAC's with the exception of the clinical coordinator and a senior NCO counsellor. The clinical coordinator would spend full time advising commanders and unit drug education specialists on managing drug and alcohol problems in their units, and the NCO counsellor would concentrate on advising addicted or self-admitted drug dependent individuals on resources in the community that could be used to assist in changing their behavior.

Will any or all of these measures solve "the problem"? Certainly not for the Congressional liaison officers, but they are entirely practical and reasonable solutions for commanders in the field who are concerned with drug use in their unit. In fact, most of these suggestions are already being used by the best commanders within the limits of their current authority. They require more authority to do their jobs, to include changes in the public and Army administrative law. That should be the goal of the Army drug and alcohol prevention effort as it moves from the crisis management phase of its development to more rationally addressing the issues and moving toward the resolution of drug and alcohol abuse in the military.

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### THE PSYCHOLOGIST RETENTION STUDY - UPDATED

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The intent of this study was to examine retrospectively the responses of Army psychologists who had responded to a survey conducted in late 1976-1977 (Mangelsdorff, 1978). The purpose was to document what factors induce some psychologists to remain in the Army and what cause other psychologists to leave the service. Specifically, what factors increase the likelihood of psychologists (1) extending beyond their current obligation and (2) remaining on active duty until eligible for retirement.

#### METHOD

Subjects. Psychologists who were on Active Duty in the Army as of November 1976 (N = 130) and psychologists who had left the Army since July 1974 to November 1976 (N = 69) were included.

Procedures. In December 1976, each psychologist was mailed a survey instrument which requested demographic background, military background, attitudes toward military career, levels of satisfaction, retention factors, and the Job Descriptive Index (Smith et al., 1969). Psychologists who had left the Army between July 1974 and November 1976 were instructed to answer the survey questions as though they had six months remaining in their active duty obligation.

Active Duty Sample Regressions. Stepwise regression analyses were performed to predict responses to each of the 7-point criterion items: (1) "Likelihood extend beyond current obligation" and (2) "Likelihood remain until eligible for retirement" (1 = low probability, 7 = high probability) using as independent variables the responses by the Active Duty sample (N = 76) to Long Term Motivator set attitude items (7-point Likert), Demographic section items, and the Job Descriptive Index scales.

#### RESULTS

Sample Characteristics. Of the Active Duty psychologists, 114 of 130 (88%) responded; of the psychologists who left the Army, 48 of 69

(70%) returned the questionnaire. The Active Duty sample was further divided into Army psychologists who remained on active duty (AD) through January 1980 (N = 76) and those who left the Army (ADLS) during the time period November 1976 to January 1980 (N = 38). Of the 16 Active Duty psychologists who did not respond, eight left the Army. The average age of the sample was 31 years. Table 1 depicts the demographic characteristics.

There were no significant differences between groups as a function of age. There was a significant difference for Total years of active military service completed ( $F = 3.60$  ( $df = 2/159$ ),  $p = .029$ ), with the AD group having significantly more years completed than the LS group. For Years of prior active military experience before becoming a psychologist, there was a significant difference between groups ( $F = 6.70$  ( $df = 2/158$ ),  $p = .001$ ), with the LS group having significantly fewer years than either the AD or ADLS groups.

Job Descriptive Index. There was only one significant difference between Active Duty versus Left Service and Active Duty Left Service groups on the JDI scores, that for PROMOTIONS, where the AD group reported significantly greater satisfaction than either of the LS or ADLS groups ( $F = 8.97$  ( $df = 2/157$ ),  $p = .0002$ ).

Validation Samples. Regression equations to predict responses to each of the 7-point criterion items: (1) "Likelihood extend" and (2) "Likelihood remain until eligible for retirement," using the raw beta weights developed from the Active Duty sample were applied to the responses of the Left Service group (N = 48) and to the Active Duty Left Service group (N = 38). Tables 2 and 3 define the contributors to the regression equations. Tables 4 and 5 summarize the comparisons.

Remain in Service. A correlation matrix was developed to display the relationship between the JDI subscales Age, Rank, Total years active military service completed, Years prior active military experience before commissioning as a psychologist, Sense of membership in Army, Personal accomplishments as a military psychologist, Likelihood promoted, Likelihood remain until eligible to retire from military service, the regression equation predictions for retire and extend, and a factor: Remain in Service. The factor Remain in Service assigned a value of one to all Active Duty psychologists and a zero to all ADLS and LS group members. Table 6 displays the relationships.

## DISCUSSION

The correlations between each of the criterion variables and the factor Remain in Service were both highly significant (Likelihood Extend:  $r = .61$ ; Likelihood Retire:  $r = .60$ ;  $p < .001$ ). These findings support the components of the withdrawal decision process offered by Porter and Steers (1973), Locke (1976), and Mobley (1977,

1979). Mobley et al. (1978) reported for precursors of hospital employee turnover that intention to quit was a significant predictor of actual attrition.

In the present study, Sense of membership in Army was one of the variables with the highest correlation with the factor Remain in Service ( $r = .40, p < .001$ ). In comparing the Active Duty versus both the Left Service groups for responses to Sense of membership in Army, those leaving the service reported a minimum. The Total years of active military service completed (the highest beta in the analysis) was the best predictor of the criterion "Likelihood remain until eligible to retire." Total years of active military service was moderately related to the factor Remain in Service ( $r = .19, p < .007$ ). Since most psychologists enter the Army as Captains and many leave the service at the same rank as they entered, there may have been some feelings of powerlessness in their position felt by some of the psychologists who left the service. Shephard and Panko (1974) note that power-deficient workers had less commitment to organizational goals. Of the Left Service and the Active Duty Left Service groups, almost all rank ordered themselves as psychologists first, and most placed their rank ordering of self as military officer as lowest.

Issues which contribute to categorizing a psychologist in the Active Duty group dealt with the development of an identity as a career military officer. Specifically, the satisfaction with PROMOTIONS significantly separated those psychologists who left the Army from those who remained on Active Duty ( $p = .0002$ ). The two items having the highest beta weights in the regression for Likelihood Extend were: Sense of membership in Army and Personal accomplishments as a military psychologist. This supports the notion of developing the identity of a career military psychologist. Personal accomplishments as a military psychologist was significantly related to the factor Remain in Service ( $r = .24, p = .001$ ).

With competition from civilian jobs perhaps offering higher pay, independence, stability, opportunity for self-improvement, or some facet not otherwise found in the military, an Army psychologist may choose not to remain in the Army. In addition, factors supporting a negative view of the military may influence the decision to leave the service.



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Table 1

DEMOGRAPHIC CHARACTERISTICS OF ACTIVE DUTY (AD), LEFT SERVICE (LS), AND  
ACTIVE DUTY LEFT SERVICE (ADLS) GROUPS

| <u>VARIABLE</u>                                                       | <u>AD</u> | <u>LS</u> | <u>ADLS</u> |
|-----------------------------------------------------------------------|-----------|-----------|-------------|
| SEX                                                                   |           |           |             |
| Male                                                                  | 75        | 47        | 38          |
| Female                                                                | 1         | 1         | 0           |
| RANK                                                                  |           |           |             |
| 1LT                                                                   | 1         | 0         | 0           |
| CPT                                                                   | 56        | 47        | 36          |
| MAJ                                                                   | 16        | 0         | 1           |
| LTC                                                                   | 2         | 0         | 1           |
| COL                                                                   | 1         | 1         | 0           |
| TOTAL YEARS OF ACTIVE MILITARY SERVICE<br>COMPLETED                   |           |           |             |
| 0 to 5                                                                | 27        | 26        | 20          |
| 6 to 10                                                               | 35        | 21        | 15          |
| 11 to 15                                                              | 9         | 0         | 2           |
| 16 to 25                                                              | 5         | 1         | 1           |
| YEARS PRIOR ACTIVE MILITARY SERVICE<br>BEFORE BECOMING A PSYCHOLOGIST |           |           |             |
| None                                                                  | 46        | 44        | 26          |
| 1 to 4                                                                | 19        | 4         | 6           |
| 5 to 9                                                                | 4         | 0         | 4           |
| 10 or more                                                            | 7         | 0         | 1           |

Table 2

SIGNIFICANT CONTRIBUTORS TO REGRESSION ANALYSIS  
DEVELOPED STEPWISE TO PREDICT CRITERION:  
"LIKELIHOOD EXTEND BEYOND CURRENT OBLIGATION"  
FOR ACTIVE DUTY GROUP (N = 76)

| <u>Step</u> | <u>ITEM CONTENT OF VARIABLE ENTERED</u>              | <u>F-Value</u> | <u>Beta</u> |
|-------------|------------------------------------------------------|----------------|-------------|
| 1           | Likelihood promoted                                  | 4.79           | .15         |
| 2           | Extent feel being utilized professionally            | 10.78          | .24         |
| 3           | Months in present assignment                         | 13.05          | .24         |
| 4           | Having opportunity to receive post-doctoral training | 7.55           | -.22        |
| 5           | Sense of membership in Army                          | 14.44          | .33         |
| 6           | Availability of civilian non-federal jobs            | 4.65           | -.15        |
| 7           | Support of my co-workers                             | 9.02           | .24         |
| 8           | Feelings of being accepted by the military           | 5.23           | .22         |
| 9           | Personal accomplishments as a military psychologist  | 11.06          | .32         |
| 10          | My professional identity as a military officer       | 4.28           | -.21        |

F = 17.05 (df = 10/65), p = .001  
multiple r = .85; R<sup>2</sup> = .72

Table 3

SIGNIFICANT CONTRIBUTORS TO REGRESSION ANALYSIS  
DEVELOPED STEPWISE TO PREDICT CRITERION:  
"LIKELIHOOD REMAIN UNTIL ELIGIBLE TO RETIRE"  
FOR ACTIVE DUTY GROUP (N = 76)

| <u>Step</u> | <u>ITEM CONTENT OF VARIABLE ENTERED</u>                                  | <u>F-Value</u> | <u>Beta</u> |
|-------------|--------------------------------------------------------------------------|----------------|-------------|
| 1           | Likelihood promoted                                                      | 12.73          | .24         |
| 2           | Belonging to community and social life<br>of military                    | 12.62          | .21         |
| 3           | My liking my present position                                            | 2.61           | .10         |
| 4           | Months in present assignment                                             | 0.44           | .04         |
| 5           | Rank ordering of self as military<br>officer                             | 3.75           | -.12        |
| 6           | Total years active military service<br>completed                         | 45.49          | .55         |
| 7           | Support of my co-workers                                                 | 6.16           | .17         |
| 8           | JDI Promotions                                                           | 3.68           | .13         |
| 9           | Personal accomplishments as a military<br>psychologist                   | 10.59          | .24         |
| 10          | Years prior active military experience<br>before becoming a psychologist | 6.10           | -.21        |

F = 24.89 (df = 10/64), p = .001  
multiple r = .89, R<sup>2</sup> = .80

Table 4

VALIDATION SAMPLE USING REGRESSION WEIGHTS  
DEVELOPED FROM ACTIVE DUTY SAMPLE TO PREDICT  
"LIKELIHOOD EXTEND BEYOND CURRENT OBLIGATION"  
FOR THE LEFT SERVICE AND  
FOR THE ACTIVE DUTY LEFT SERVICE GROUPS

## Active Duty Left Service Group

|             |           | Actual probability extend |                  |             |
|-------------|-----------|---------------------------|------------------|-------------|
|             |           | <u>Low</u>                | <u>Undecided</u> | <u>High</u> |
| Predicted   | Low       | 7                         | 2                | 0           |
| Probability | Undecided | 9                         | 15               | 2           |
|             | High      | 1                         | 2                | 0           |

$\chi^2 = 5.66$  (df = 4),  $p = .225$   
Pearson's  $r = .302$ ,  $p = .032$

## Left Service Group

|             |           | Actual probability extend |                  |             |
|-------------|-----------|---------------------------|------------------|-------------|
|             |           | <u>Low</u>                | <u>Undecided</u> | <u>High</u> |
| Predicted   | Low       | 11                        | 0                | 0           |
| Probability | Undecided | 26                        | 4                | 2           |
|             | High      | 4                         | 0                | 1           |

$\chi^2 = 4.55$  (df = 4),  $p = .335$   
Pearson's  $r = .223$ ,  $p = .063$

Note: Both the "Actual" and the "Predicted" score using the Active Duty regression weights were collapsed as follows: 1, 2 = Low; 3, 4, 5 = Undecided; 6, 7 = High.

Table 5

VALIDATION SAMPLE USING REGRESSION WEIGHTS  
DEVELOPED FROM ACTIVE DUTY SAMPLE TO PREDICT  
"LIKELIHOOD TO REMAIN UNTIL ELIGIBLE TO RETIRE"  
FOR THE LEFT SERVICE AND  
FOR THE ACTIVE DUTY LEFT SERVICE GROUPS

## Active Duty Left Service Group

|                          |           | Actual probability retire |                  |             |
|--------------------------|-----------|---------------------------|------------------|-------------|
|                          |           | <u>Low</u>                | <u>Undecided</u> | <u>High</u> |
| Predicted<br>Probability | Low       | 14                        | 2                | 0           |
|                          | Undecided | 10                        | 10               | 1           |
|                          | High      | 0                         | 0                | 1           |

$\chi^2 = 24.71$  (df = 4),  $p = .0001$   
Pearson's  $r = .521$ ,  $p = .0004$

## Left Service Group

|                          |           | Actual probability retire |                  |             |
|--------------------------|-----------|---------------------------|------------------|-------------|
|                          |           | <u>Low</u>                | <u>Undecided</u> | <u>High</u> |
| Predicted<br>Probability | Low       | 23                        | 3                | 0           |
|                          | Undecided | 16                        | 5                | 0           |
|                          | High      | 0                         | 0                | 1           |

$\chi^2 = 49.26$  (df = 4),  $p = .0001$   
Pearson's  $r = .357$ ,  $p = .006$

Note: Both the "Actual" and the "Predicted" score using the Active Duty regression weights were collapsed as follows: 1, 2 = Low; 3, 4, 5 = Undecided; 6, 7 = High.

CORRELATION MATRIX OF FACTOR REMAIN IN SERVICE WITH JDI SUBSCALES,  
DEMOGRAPHIC AND ATTITUDINAL RESPONSES

| 1  | 2   | 3  | 4   | 5  | 6   | 7   | 8   | 9   | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|----|-----|----|-----|----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| 1  |     |    |     |    |     |     |     |     |    |    |    |    |    |    |    |
| 2  | 04  |    |     |    |     |     |     |     |    |    |    |    |    |    |    |
| 3  | 01  | 16 |     |    |     |     |     |     |    |    |    |    |    |    |    |
| 4  | 27  | 30 | 22  |    |     |     |     |     |    |    |    |    |    |    |    |
| 5  | 15  | 51 | 14  | 14 |     |     |     |     |    |    |    |    |    |    |    |
| 6  | 07  | 43 | 11  | 17 | 32  |     |     |     |    |    |    |    |    |    |    |
| 7  | -00 | 10 | 05  | 06 | 04  | 02  |     |     |    |    |    |    |    |    |    |
| 8  | 16  | 05 | 01  | 03 | -00 | 77  | 76  |     |    |    |    |    |    |    |    |
| 9  | 15  | 05 | -04 | 09 | 06  | 86  | 43  | 56  |    |    |    |    |    |    |    |
| 10 | 23  | 00 | 04  | 19 | 13  | -01 | 48  | 47  | 33 |    |    |    |    |    |    |
| 11 | 38  | 13 | 01  | 33 | 18  | 43  | 45  | 23  | 43 | 41 |    |    |    |    |    |
| 12 | 15  | 01 | 01  | 25 | 03  | 09  | 22  | 18  | 26 | 17 | 05 |    |    |    |    |
| 13 | 29  | 07 | -05 | 43 | 15  | 21  | -13 | -18 | 03 | 17 | 45 | 29 |    |    |    |
| 14 | 59  | 18 | 12  | 40 | 41  | 14  | 41  | 43  | 30 | 60 | 45 | 29 | 87 |    |    |
| 15 | 57  | 15 | 05  | 40 | 22  | 10  | 47  | 57  | 38 | 68 | 45 | 20 | 68 | 75 |    |
| 16 | 26  | 15 | 06  | 36 | 19  | 12  | 60  | 66  | 45 | 69 | 66 | 20 | 67 | 73 | 96 |
| 17 | 24  | 15 | 08  | 38 | 17  | 11  | 56  | 60  | 38 | 68 | 68 | 20 | 67 | 73 | 96 |

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## Variables:

- |   |                |    |                                                        |    |        |
|---|----------------|----|--------------------------------------------------------|----|--------|
| 1 | Remain on AD   | 9  | Total years of active military service completed       | 16 | Extend |
| 2 | JDI work       | 10 | Years prior active military experience                 | 17 | Retire |
| 3 | JDI pay        | 11 | Sense of membership in Army                            |    |        |
| 4 | JDI promotions | 12 | My personal accomplishments as a military psychologist |    |        |
| 5 | JDI co-workers |    |                                                        |    |        |
| 6 | JDI supervisor | 13 | Likelihood promoted                                    |    |        |
| 7 | Age            | 14 | Likelihood extend beyond obligation                    |    |        |
| 8 | Rank           | 15 | Likelihood retire from military service                |    |        |

Notes: 1. Decimal points omitted in matrix.

2. The factor Remain in Service assigned a value of one to all AD psychologists and a zero to all ADLS and LS group members.



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## JOB SATISFACTION BETWEEN TWO GROUPS OF ARMY PHARMACISTS

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### ABSTRACT

Two groups of pharmacists ( $n = 145$ ) assigned to 35 Army Medical Treatment Facilities were surveyed to assess job satisfaction. Pharmacists providing patient care were significantly more satisfied relative to pharmacists not providing patient care on satisfaction items constituting the factor "pharmacy services provided." On the other hand, no significant difference in satisfaction was found between groups on such organization characteristics as pay, working conditions, opportunity for advancement or effective communication among nurses, physicians and pharmacists. The findings are discussed relative to job satisfaction and enrichment.

### INTRODUCTION

Clinically trained pharmacists are being utilized as patient care providers in many health care delivery facilities. However, whether or not pharmacists providing patient care express greater job satisfaction through job enrichment than pharmacists limited to performing dispensary functions, has not been investigated.

A means of increasing both the satisfaction and productivity of employees is through job enrichment. Job enrichment often consists of redesigning jobs so that employees experience a greater sense of accomplishment, responsibility, recognition and consequently, a greater motivation to work (Paul et al., 1969). Previous authors report that job enrichment increases both job satisfaction and commitment (Hackman and Oldham, 1975; Herzberg, 1966). These factors are thought to result from increased levels of certain job characteristics such as task identity and job significance.

Rauch and Hartley reported that pharmacists considered tasks which require providing therapeutic drug information to physicians and nurses as most important.\* The job tasks of pharmacists providing patient care generally include: (1) determining adverse reactions to drug therapy, (2) determining the efficacy of drug therapy, and (3) serving as a significant member of the therapeutic drug team. Applied to clinical pharmacy, the theory of job enrichment and satisfaction suggests that patient care pharmacists should express greater job satisfaction than pharmacists either performing or supervising dispensary functions only. Greater satisfaction should result from pharmacists performing more diversified and significant tasks associated with patient care.

## METHOD

The survey was conducted in June of 1979. Subjects consisted of pharmacists (n = 145) assigned to 35 Army Medical Treatment Facilities in the United States.

In addition to routine demographic data, information was obtained by means of a survey instrument designed to measure satisfaction with pay, advancement, working conditions, professional challenge, staffing and pharmacy services provided. Responses were arranged in a 7-point Likert-type format. A one-way analysis of variance was used to statistically test whether the mean responses were significantly different between groups. Discriminant analysis was performed to determine the variables that best discriminate between groups, and satisfaction variables were factor analyzed to a smaller set of factors to determine underlying relationships.

Pharmacists were placed into one of two groups depending on whether or not they performed certain patient care activities. The "Patient Care" pharmacy group performed those activities in which the pharmacist applied knowledge of biological/pharmaceutical science and clinical experience to specific cases of drug therapy. Specific patient care tasks included: (1) conducting follow-up observation of patients to determine adverse reactions to drug therapy, (2) conducting follow-up observation of patients to determine the efficacy of drug therapy, and (3) serving as a member of the therapeutic drug team. Pharmacists performing all three patient care activities were assigned to the patient care group (PC). Pharmacists not performing all three patient care activities were assigned to the "non-patient" care group (NPC).

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\*Rauch TM and Hartley BH: Decentralized Inpatient Pharmacy Service Study: Relative Merits of Decentralized/Clinical Pharmacy Services. Health Care Studies Division, Academy of Health Sciences (HCSD Report No. 80-001-B) (Submitted for publication.)

## RESULTS

Of the pharmacists surveyed, 153 (96%) responded. Eight pharmacists were not included in the analysis because of missing data, resulting in a total of 145 usable respondents. Overall, 25 pharmacists were placed in the PC group and 44 assigned to the NPC group according to their current job activities. A comparison of PC and NPC pharmacists revealed no significant differences as a function of either age, time in military service, time practicing hospital pharmacy, size of facility where pharmacist is assigned, sex, and employment status (military versus civilian).

The results of a stepwise discriminant analysis for pharmacists and univariate  $F$  tests for each variable are summarized in Table 1. A significant discriminant function was obtained,  $X^2(4) = 18.74$ ,  $p < .01$ , accounting for 26% of the variance among four satisfaction items. The analysis of variance indicated that PC pharmacists are significantly more satisfied than NPC pharmacists with professional challenge, use of education effectively, education of patients and families in medication compliance, staffing of the pharmacy, availability to provide professional services, amount of drug information provided, and the role provided by the pharmacy service toward patient care. No significant differences in satisfaction were found between PC and NPC pharmacists for pay, working conditions, opportunity for advancement, or effective communication among nurses, physicians and pharmacists.

Table 2 shows the intercorrelations for all satisfaction items. The strongest correlations were found for professional challenge and use of education effectively,  $r = 0.72$ ,  $p < .01$ , and availability to provide professional services to member of the health care team and use of education effectively,  $r = 0.61$ ,  $p < .01$ .

Standardized discriminant function coefficients are also reported in Table 1. These weights represent the relative importance of each variable in the function and also indicate the degree of multicollinearity among the variables themselves. Taking these values into consideration, it can be seen that the majority of between-groups discrimination is explained by satisfaction with the amount of drug information provided in response to physician and nurse needs (discriminant weight of .61), use of education effectively (.50), and staffing of the pharmacy (.38).

Satisfaction items were factor analyzed. Item-factor loadings and Cronbach's alpha for each factor appear in Table 3. The factor analysis yielded two factors having eigenvalues greater than 1.000 and accounting for a cumulative 56.8% of the total variance. The factors were subjected to a varimax rotation with Kaiser normalization to produce two factors identified as "pharmacy services provided" (factor I) and "organizational characteristics" (factor II). The two factors accounted for 82.7% and 17.3% of the variance respectively. Overall, both factors show acceptable internal consistency, with "pharmacy services provided" showing the higher ( $\alpha = .85$ ) and "organizational characteristics" the lower ( $\alpha = .74$ ) reliability estimates.

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TABLE 1

Standardized Discriminant Function Coefficients and Analysis of  
Variance for Satisfaction Items Between PC and NPC Pharmacists

| Dependent Variable<br>(satisfaction with...)                                                           | PC Pharmacists |                       | NPC Pharmacists |                       | F <sup>a</sup> | Discriminant<br>Function<br>Coefficients |
|--------------------------------------------------------------------------------------------------------|----------------|-----------------------|-----------------|-----------------------|----------------|------------------------------------------|
|                                                                                                        | Mean           | Standard<br>Deviation | Mean            | Standard<br>Deviation |                |                                          |
| Role provided by pharmacy<br>service toward patient<br>care                                            | 5.38           | 1.13                  | 4.29            | 1.63                  | 8.21**         |                                          |
| Amount of drug information<br>you are providing in<br>response to physician and<br>nurse needs         | 5.92           | 1.01                  | 4.54            | 1.58                  | 14.65**        | .61                                      |
| Your availability to pro-<br>vide professional services<br>to other members of the<br>health care team | 5.58           | 1.50                  | 4.12            | 1.81                  | 11.18**        |                                          |
| Staffing the pharmacy                                                                                  | 3.79           | 1.86                  | 2.71            | 1.78                  | 5.43*          | .38                                      |
| Education of patients and<br>families in medication<br>compliance                                      | 3.92           | 1.83                  | 2.80            | 1.72                  | 6.01*          |                                          |
| Effective communication<br>among nurses, pharmacists<br>and physicians                                 | 4.96           | 1.71                  | 4.12            | 1.85                  | 3.28           |                                          |
| Opportunity for advancement                                                                            | 3.50           | 1.79                  | 3.22            | 2.14                  | 0.29           |                                          |
| Use of education<br>effectively                                                                        | 5.13           | 1.51                  | 3.63            | 2.02                  | 9.31**         | .50                                      |
| Working conditions                                                                                     | 4.71           | 1.55                  | 4.59            | 1.90                  | 0.20           |                                          |
| Professional challenge                                                                                 | 5.33           | 1.49                  | 4.00            | 2.24                  | 6.75*          |                                          |
| Pay                                                                                                    | 3.79           | 1.74                  | 3.85            | 2.03                  | 0.01           |                                          |

<sup>a</sup>df = 1,63

\*p<.05

\*\*p<.01

TABLE 2

## Intercorrelations of Satisfaction Items

| Satisfaction Item                                                                             | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   |
|-----------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| 1 Role provided by pharmacy service toward patient care                                       | 1.00 | .50  | .47  | .41  | .44  | .40  | .32  | .39  | .45  | .35  | .49  |
| 2 Amount of drug information you are providing in response to physician and nurse needs       |      | 1.00 | .56  | .32  | .46  | .52  | .20* | .27* | .52  | .18* | .43  |
| 3 Your availability to provide professional services to other members of the health care team |      |      | 1.00 | .48  | .47  | .43  | .21  | .10* | .61  | .26* | .40  |
| 4 Staffing the pharmacy                                                                       |      |      |      | 1.00 | .46  | .36  | .32  | .28* | .42  | .23* | .23* |
| 5 Education of patients and families in medication compliance                                 |      |      |      |      | 1.00 | .44  | .22* | .21* | .49  | .08* | .29  |
| 6 Effective communication among nurses, pharmacists and physicians                            |      |      |      |      |      | 1.00 | .27* | .37  | .47  | .31  | .37  |
| 7 Pay                                                                                         |      |      |      |      |      |      | 1.00 | .51  | .43  | .40  | .32  |
| 8 Opportunity for advancement                                                                 |      |      |      |      |      |      |      | 1.00 | .47  | .38  | .51  |
| 9 Use of education effectively                                                                |      |      |      |      |      |      |      |      | 1.00 | .40  | .72  |
| 10 Working conditions                                                                         |      |      |      |      |      |      |      |      |      | 1.00 | .50  |
| 11 Professional challenge                                                                     |      |      |      |      |      |      |      |      |      |      | 1.00 |

df = 1,66

\* p&lt;.01 for all except these correlations

TABLE 3

Item-Factor Loadings for Satisfaction Measures and  
Cronbach's Alpha for Factors

|                                                                                                        | Factor I (alpha = .85) | Factor II (alpha = .74) |
|--------------------------------------------------------------------------------------------------------|------------------------|-------------------------|
| Role provided by pharmacy<br>service toward patient care                                               | .55*                   | .40                     |
| Amount of drug information<br>you are providing in<br>response to physician and<br>nurse needs         | .70*                   | .18                     |
| Your availability to pro-<br>vide professional services<br>to other members of the<br>health care team | .76*                   | .11                     |
| Staffing the pharmacy                                                                                  | .53*                   | .25                     |
| Education of patients and<br>families in medication<br>compliance                                      | .65*                   | .13                     |
| Effective communication<br>among nurses, pharmacists<br>and physicians                                 | .55*                   | .31                     |
| Pay                                                                                                    | .17                    | .57**                   |
| Opportunity for advancement                                                                            | .13                    | .73**                   |
| Use of education<br>effectively                                                                        | .61*                   | .54                     |
| Working conditions                                                                                     | .14                    | .57**                   |
| Professional challenge                                                                                 | .39                    | .62**                   |

\* indicates item belonging to Factor I

\*\* indicates item belonging to Factor II



FATHER DISCRIMINATION TWO WEEKS AFTER BIRTH

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For sometime, individuals interested in human development have concerned themselves with the question of when the process of attachment or emotional bonding begins. The prerequisite for any development of attachment is that the child be able to discriminate the parent from other adults. For a number of years, the guideline used was the notion of fear of strangers which was widely accepted as occurring around the sixth to eighth month. Rheingold (1973) reported a well planned series of experiments which effectively dismantled this monolithic assumption. A number of operant studies which have been reviewed elsewhere (Hulsebus, 1973) were based on the belief that infants did not recognize their mothers before the third month of life. The age of three months did not seem to be accepted by a number of mothers interviewed in the course of other research; they stated the belief that babies seemed able to recognize them and respond differentially during the first weeks of life.

Consequently, to determine if young infants could discriminate their mothers and indicate this by differential responding, research comparing mothers and a female stranger was conducted (Hulsebus and Hulsebus, 1973). The paradigm was the same used in the present research. The results revealed that two-week-old infants could discriminate their mothers' voices from that of a female stranger. These findings were novel and expanded our knowledge about the abilities of young infants. Yet, if one thinks about the typical situation where the mother spends most of her waking - and more of her sleeping time than she might like - with her infant, there is considerable opportunity for the infant to listen to and come to recognize his mother's voice.

One of the unfortunate shortcomings in the field of child development research is our lack of knowledge about how fathers and their infant sons and daughters interact and influence each other. We know very little about how the father might fit into the developing mental schema of his child. I was interested in the question of whether fathers who have much less contact with and exposure to their newborn babies - could be differentiated from other males by two-week-old infants. The basis of comparison between the fathers and stranger was the effects of their voices on the protesting behavior of their infants.



This experiment was conducted with 24 infants with an average age of 16 days when tested. A single comparison session was held in the infant's home at a time the parents reported to be between feedings. The decision to use a single test session meant that many environmental and individual variables would be likely to be constant. Comparison began only after a continuous crying or protesting pattern developed - a period of 15 to 20 seconds in which there were at least three protests per five second interval. For half of the subjects, the child's father spoke first, and for the other half, the male stranger spoke first. A prepared script ensured the same verbal content; each adult spoke in pleasant, soothing tones for one minute. Each adult spoke from a position behind the infant's head and out of his field of vision.

The dependent variable was the latency between the beginning of the adult's speech and the onset of a criterion length (five seconds) pause in crying. The infant and adult vocal behavior were tape recorded and later transcribed. Independent transcription of crying patterns from the tape recordings on a multichannel event recorder by two monitors resulted in a 96% agreement rate as to which adult the criterion latencies indicated a significant difference ( $p < .01$ ), in more rapid pausing when the fathers were speaking. A chi square analysis of the number of infants pausing sooner to their father's voice was conducted; the number of fathers who were paused to sooner was significantly greater than that expected by chance ( $p < .05$ ). This is clear evidence that infants as young as two weeks have the capacity to differentiate their fathers by voice alone.

There are two fascinating implications that have occurred to me. The first concerns the reduced amount of exposure the infants had to their fathers compared to their mothers. All of these fathers were in the Army. While each was able to be home for an increased amount of time following their child's birth, most had returned to work before the comparison was held. In spite of the considerably reduced exposure time, these infants had learned to recognize the essential voice qualities of their fathers. The second question which emerges is: If two-week-olds are able to differentiate their parents from strangers, how soon after birth might this discriminative ability develop?

In conclusion, we return to the beginning. Regarding the question of how soon emotional bonding or attachment begins, we now know that the requisite condition has already been met two weeks after birth.

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## MILITARY FAMILY COUNSELLING

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### INTRODUCTION

The prime source of support for most key middle management NCO's and officers is the family. However, these soldiers can also be the symptom bearers of a pathogenic dysfunctional family system. Consequently, military effectiveness may suffer, in some cases beyond repair, as the soldier is torn between his job demands and the ever-changing life cycle needs of his family.

Ft. Stewart and the 24th Infantry Division Mechanized lacked a secondary prevention capability for mental health problems. Command management, Family Life programs, chaplain and community services had a primary preventative mission. However, once these efforts failed, there was no program to prevent the costly consequences of loss of middle management efficiency, medical treatment, hospitalization, administrative action, and loss of key personnel due to symptoms which may be associated with unique stresses within the military family. With the mission of becoming combat ready as a part of the Rapid Deployment Force, priorities required efficient, short term treatment of symptomatic families on a secondary preventative level to maintain effective, symptom-free duty performance of key middle management soldiers.

→ The purpose of this study was to demonstrate the efficacy of family counselling with families of active duty senior non-commissioned officers. It was an application of elements of the Go-Between Process (Zuk, 1972, 1975) which was based on the finding that this method affected significant improvement in the interpersonal functioning of the family (Garrigan and Bambrick, 1975, 1977a, 1979).

→ This study posed the hypothesis that supervised family counselling performed by military chaplains who underwent a 150 hours training program (Garrigan and Bambrick, 1977b) would affect significant changes in the treatment of families. These changes would be reflected in the following criteria: 1) family adjustment and 2) anxiety levels

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This project was approved by HSC and received financial support from the Chief of Chaplain's Office.

of the family members. These criteria are congruent with the goals for short term family treatment established by the Group for the Advancement of Psychiatry Committee on Family Therapy (1970). Other hypotheses and results concerning the valuing process within the marriage dyad are not reported here.

#### DESIGN

The experimental and control groups were composed of intact families of active duty personnel and had the following characteristics: (a) a family member was referred for counselling because of behavioral/emotional difficulties or a family member sought help for marriage or family problems; (b) the present status of the family adversely affected the service member's self-reported level of duty performance; (c) only children nine years of age and older participated in the family counselling interviews and each family had at least one child present for interviews; and (d) no family member present during counselling sessions presented a history of psychosis, mental deficiency, or severe, longstanding neurotic adjustment.

Thirty-six families were randomly assigned to the experimental and control groups. All families participated in the family therapy program requiring attendance to ten sessions within a twenty week period. The experimental group completed testing after completion of the program. The control group completed testing prior to participation in the program. Testing of the experimental and control groups was completed within a four week period occurring between planned termination of the experimental families and the beginning of therapy for the control families.

The dependent variables were analyzed by a one way analysis of variance. The dependent variables included the following: (a) Family adjustment as perceived by all family members was assessed by the Family Concept Q Sort (Van der Veen, Huebner, Jorgens, and Neja, 1964); (b) Anxiety in all family members was assessed by the State-Trait Anxiety Scale (Spielberger, Gorsuch, and Lushene, 1970).

#### TRAINING AND SUPERVISION

Four project counsellors were selected from volunteer chaplains, who had a masters degree, at least 5 years experience in the ministry, and had successfully completed 150 hours of training provided by the project staff. Training and supervision was conducted by this author and two civilian consultants. Behavioral competencies, objectives of training, and evaluation criteria for the project are outlined in Garrigan and Bambrick (1977).

## RESULTS

Table 1 reports the means, standard deviations and F values for the analysis of variance of the subjects' responses. All family members reported significant improvement in family adjustment on the Family Concept Q Sort. This reflects the perception of all family members of significantly improved interpersonal functioning of the family as a unit in areas of communication, decision making, and task accomplishment.

Mothers reported significantly less state and trait anxiety. The analysis of fathers' responses on the anxiety scale indicates that reduction approached significance on the trait anxiety. There was no significant difference between treatment and control children. This last finding may be erroneous due to uncontrolled variables of the number, age, and sex of the children in both treatment and control families.

## CONCLUSION

This project demonstrated that effective elements of the Go-Between Process were taught in a relatively brief (150 hours) training program with a group of selected mature chaplains who had little or no background in family counselling. This is not to say that these chaplains became sophisticated therapists in Zuk's method in a few weeks. Simply, they were able to learn elements of a system and were able to apply their learnings under supervision effectively to problems of the military family.

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Table 1

Means, Standard Deviations, and F Values  
for the Analysis of Variance of the Subjects' Responses

|           | Treatment |       | Mother<br>Control |       | F     | p     |
|-----------|-----------|-------|-------------------|-------|-------|-------|
|           | <u>X</u>  | SD    | <u>X</u>          | SD    |       |       |
| FCQS      | 40.63     | 5.57  | 26.72             | 8.44  | 46.17 | .0001 |
| Anxiety T | 38.44     | 8.79  | 54.71             | 14.73 | 14.61 | .001  |
| Anxiety S | 36.75     | 6.95  | 49.50             | 16.05 | 8.64  | .006  |
| Father    |           |       |                   |       |       |       |
| FCQS      | 39.27     | 5.57  | 23.72             | 8.44  | 46.17 | .0001 |
| Anxiety T | 36.88     | 9.89  | 39.72             | 11.47 | .593  | .547  |
| Anxiety S | 32.94     | 8.58  | 39.78             | 11.09 | 3.97  | .052  |
| Children  |           |       |                   |       |       |       |
| FCQS      | 36.78     | 11.33 | 21.48             | 8.29  | 21.33 | .0001 |
| Anxiety T | 41.92     | 12.44 | 48.05             | 7.65  | 3.18  | .081  |
| Anxiety S | 43.42     | 16.83 | 47.00             | 10.28 | .58   | .542  |

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PRIMARY PREVENTION AND THE MILITARY  
OR  
WHERE IS THE BROAD STREET PUMP NOW?

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London was once faced with a cholera epidemic. People were literally dying in the streets and the medical community was overwhelmed by cholera victims. Physicians toiled mightily to stem the flow, but with little success. One physician, however, perceived what his colleagues could not see; that the only way to halt the epidemic was to discover the source of the disease, not to treat its victims. This physician studied the water delivery system and discovered that a larger number of victims were coming from one supplier. The water source used by this supplier was eliminated and the epidemic was soon over.

This story illustrates a point well known to the Public Health Community, but often forgotten by psychologists. No disorder, disease, or human affliction has even been eliminated by treating its victims. Limiting one's focus to treatment (as opposed to prevention) only guarantees a steady flow of patients. While some people argue that this economic factor is crucial in the private practice environment, it clearly has no bearing on military psychology.

DEFINITION

Caplan (1964) was among the first to discuss the concepts of primary prevention as applied to mental health. His division of health care delivery into primary (prevention), secondary (early identification and treatment), and tertiary (rehabilitation) efforts still stands. More recent workers (Bower, 1977) have expanded this tri-level approach still further to include: (a) health promotion, (b) specific protection for at risk populations, (c) early diagnosis and prompt treatment, (d) disability limitation, and (e) rehabilitation. The common element is the recognition of prevention as the crucial intervention.

Roberts (1970) has defined primary prevention as involving (a) removal of noxious agents and/or (b) strengthening the hosts' resistance, and (c) preventing contact between agent and host. Wagenfeld (1972) conceptualized primary prevention to include: (a) intervention in life crises among at risk populations and/or (b) altering the balance of physical, social, cultural, and psychosocial forces in the community. Albee (1980) noted that perhaps the most significant factor in producing psychopathology is the abuse of power by those in authority. Although these authors conceptualize primary prevention somewhat differently, the pragmatic meaning is clear. Primary prevention involves decreasing the external stressors in the environment, increasing the competency or self esteem of the individual or group experiencing the stress, and providing external support (support groups). George Albee (1980) conceptualized this relationship as follows:

$$\text{Incidence of Psychopathology} = \frac{\text{Organic Factors} + \text{Stress}}{\text{Competence} + \text{Self Esteem} + \text{Support Groups}}$$

Despite this conceptual specificity, a pragmatic definition of primary prevention is difficult because of the diversity of potential prevention activities. Kessler and Albee (1975) note that "practically every effort aimed at improved child rearing, increasing effective communication, building inner control and self esteem, reducing stress, and pollution...in short, everything aimed at improving the human condition...may be considered part of primary prevention of mental disorders."

#### RATIONALE

The concept of primary prevention is clearly regarded by the established mental health community as untenable, and in fact, heretical in nature. Perhaps the only area in which traditional psychiatry and traditional psychology agree is that primary prevention is not acceptable. An analysis of the economic, power, and system components of this view is beyond the scope of this paper. The reader is referred to Albee (1979) for a more complete discussion of the prevention of prevention. If we allow ourselves to think the unthinkable, we are still faced with the issues of why, as military psychologists, should we become involved in primary prevention. Clearly there must be some compelling reason for giving up the sanctity of our offices and the more comfortable and prestigious practice of psychotherapy.

Incidence of Psychopathology. The President's Commission on Mental Health recently (1978) reported that 15% of the population was in need of professional mental health intervention. In the United States (assuming a population of 225 m) this leaves 33,750,000 people in need of help! Within the U.S. Army our manpower currently



stands at approximately 762,000, leaving 114,300 soldiers (and 15% of their dependents), and 15% of our retirees (and 15% of their dependents) in need of psychological intervention. In a combat division of 16,000 men, approximately 2,400 men would be in need of assistance! There is also reason to believe that the incidence of psychopathology is greatest in situations of high stress (the military environment) and among individuals with poor achievement track records (our increasing CAT IV recruiting). The situation becomes even more difficult under modern combat conditions. In only 10 days of combat on Okinawa, the 6th Marine Division experienced 2,662 wounded in action (WIA) and 1,289 psychiatric casualties. The 9th Division experienced 2,700 WIA and 919 psychiatric casualties following 44 days on the Gothic Line (Ingraham and Manning, 1980). Indeed during the early stages of the North African Campaign psychiatric evacuations from the theater exceeded theater replacements.

Manpower. Related to the issue of incidence is manpower. With unlimited manpower incidence figures are less significant, except, of course, to those doing the suffering. The President's Commission (1978) reported that (a) only approximately 7 million persons received professional mental health assistance each year (remember 33.7 million were in need) and (b) that the majority of mental health providers were located in 7 major east and west coast states. Thus, 30.5 million people were not reached. Within the U.S. Army we are all acutely aware of the shortages of military psychologists, psychiatrists, and social workers. The total mental health officer manpower is approximately as follows: clinical psychologists 100, psychiatrists 200, and social workers 250, for a total of 550 mental health professionals. The picture is complicated by assignment location (thus, almost 50% of the force is overseas, and only 14 of approximately 96 (15%) clinical psychologists (68S) are assigned overseas. The assignment of Air Force and Navy psychologists is equally out of balance. The situation is not much different for military psychiatrists. Indeed, I suspect that about 70% of all psychiatrists are assigned to Walter Reed Army Medical Center (with minimal troop concentrations), Letterman Army Medical Center (with even a smaller troop concentration), and Dwight David Eisenhower Medical Center. The 2,400 men predicted to be at risk in a 16,000 man division are served by 1 psychiatrist, 1 psychologist, 1 social worker, and 6-10 91G's - if all positions are filled.

Mission. The AMEDD's mission is a supportive one, and is designed solely to "preserve the fighting strength." Our mission as military psychologists is to preserve the mental health of the unit so it can function effectively in its combat mission. Our interventions must be aimed at preventing psychological casualties. In the combat environment no one will receive long term (greater than 1-3 sessions) treatment. The possibility of employing treatment strategies (i.e., secondary prevention) and returning soldiers to the battlefield will be extremely limited (given the mobility of the

battlefield and the short term nature of most scenarios). At best, the medical treatment system will have 24 to 72 hours (and that may be a very generous time allocation) to treat the psychiatric casualties with organic mental health resources.

Epidemiology. There continues to be considerable debate regarding the etiology of psychopathology and, indeed, on the very definition of psychopathology. The American Psychiatric Association's most recent pronouncement (DSM III) extends the definition of psychopathology to include speech difficulty (developmental language disorder) and dyslexia (developmental reading disorder). In short order, only the minority will be labeled as healthy! As the definition of psychopathology is widened, the imbalance between potential patients and treatment resources increases. In short order, all but a minority will be seen as defective, with "treatment" provided to minimal numbers.

Traditional mental health thinking has located the source of psychopathology within the individual. The defect model holds that anyone exhibiting psychopathology has some internal constitutional and/or psychic defect. The solution to psychopathology, therefore, is to eliminate the defect. Since this defect is internal, all interventions are directed internally (and not towards the environment). Defect theorists feel justified in all forms of "treatment" designed to eliminate this defect. In earlier times we employed such enlightenment treatment as: (a) boring holes in the patient's (victim's) skulls, (b) forced cold water baths, (c) destruction of brain tissue (lobotomy), and (d) physical punishment. Lest we fall into the trap of thinking that great progress has been made in this area, remember that patients are now subjected to (a) being more "scientifically" drugged into stupor and subjected to permanent neurological impairment (tardive dyskinesia), (b) impaired growth rates (Ritalin), (c) temporary neurologic disorganization (ECT), and (d) permanent neurological impairment (psychosurgery). The search for the miracle drug goes on, with many "biologic" psychiatrists holding that social non-conformity is a biologic disease. Kelerman (1972) states "Hopefully psychopharmacologic agents will prove useful in altering behavioral deviances, such as alcoholism, drug addiction, and perhaps even crime and delinquency." Brill and Patton (1966) called for a "mass therapy for conduct and personality disorders, social incapacity, economic dependence, unemployment, and vagabondage...(and) the problems of these people clearly lie within the field of psychopharmacology."

Constitutional defect is indeed a popular explanation for psychopathology. Yet, few studies support this concept. Sameroff (1977) reports that we have not yet demonstrated any casual link between a constitutional variable and any personality and/or developmental outcome. Virtually all effects discovered in retrospective studies (such as those linking anoxia and MBD) have not been confirmed in prospective studies (while the effects of environment and stress have proven crucial). Indeed, prospective studies regularly demonstrate that individuals with the previously identified constitutional defect often have no "pathology" at all.

Perhaps the most interesting contradiction occurs in the opposition to primary prevention as voiced by traditional psychotherapists. These therapists adhere to the crucial role of early life experiences (psycho-dynamic theory) and/or current situation (behavioral therapy) while at the same time claiming that any attempt to modify environments (i.e., primary prevention) is unworkable. These psychotherapists argue that the research in primary prevention has not proven conclusive and suffers from experimental design defects. Is the psychotherapy outcome record all that better? Psychotherapists who accept any non-biologic component to psychopathology must assume that his psychopathology arises from experience. This experience arises out of an interaction between the environment and the individual. Thus, changing the environment or strengthening the individual must alter the incidence of psychopathology.

Primary prevention is not new to the U.S. Army. We had established Community Mental Health Services long before the civilian community. The application of primary prevention principles in the combat environment is also not new. Unfortunately many community oriented programs gave way to traditional mental health clinics and we are again faced with the task of rediscovering the wheel. Military psychologists/psychiatrists used to believe that soldiers who exhibited psychological disturbances after periods of prolonged combat exposure suffered from a predisposing weakness (i.e., defect). Over time we learned that pre-combat variables were not predictive of disability, but that severity/length of the combat stress was. The evidence seemed clear. Environment factors (i.e., unit morale, prolonged exposure to combat, societal support, etc.) precipitated psychopathology to otherwise healthy soldiers. An inappropriate treatment response, such as evacuation to the rear area and financial compensation, seemed to perpetuate the condition, as did treatment arising from the defect model ( he is weak and cannot cope, we had better evacuate him, offer some form of treatment, and then medically discharge him). This observation led to the discovery and implementation of principles such as immediacy, expectancy, and proximity. It led to the use of R and R, a set DEROS, and other environmental manipulations. The application of these principles reduced the psychiatric casualty rate in Vietnam to almost zero. Unfortunately, the long term effects of the Vietnam experience were only delayed and not eliminated. Current research (Williams, 1979 and Figley, 1978) tentatively suggests that more Vietnam veterans have died of suicide since returning to CONUS than were killed in combat. Many more Vietnam veterans are in jail or in psychiatric hospitals. The message is clear. Primary prevention worked during Vietnam. Primary prevention efforts were abandoned upon the end of the war and the defect model was applied with vigor, only to have psychiatric disorders increase. Perhaps more comprehensive primary prevention efforts would have prevented these additional (more numerous) casualties.

In planning primary prevention efforts, Albee's (1979) formula should be kept in mind. Activities which act to decrease (1) stress and/or (2) organic weakness will result in a lowered incidence of psychopathology. Our primary focus should be directed towards the reduction of unnecessary stresses. Consultation with unit commanders regarding training schedules, unit morale, family separation, and leadership style are only a few of the potential intervention activities. Familiarity with unit organization, principles of leadership, and the unit mission is crucial.

All stress related to military duty cannot be eliminated (especially during combat operations). Albee's formula, however, provides the alternative of intervening to "strengthen the hosts," rather than simply reducing stress. Thus activities that increase the competence of individual soldiers, increase the soldiers' self esteem, and increase support group effectiveness will allow the soldier to withstand a greater degree of stress. With these principles in mind, it is no surprise that elite, well trained combat units with high morale and group cohesion withstand the stresses of combat with minimal psychiatric casualties. Consultation with unit commanders and higher level commands regarding unit morale, the creation of geographic units, unit cohesion, the rotation of units instead of individuals, length of overseas tours, and the wearing of distinctive unit headgear is an appropriate preventative intervention.

Involvement in the training of NCO's (NCO Academy), senior NCO's (Sergeants' Major Academy), junior officers (Basic Course), advanced officers (Advanced Course), and Senior officers (Command and General Staff, Armed Forces Staff College, etc.) afford ways to enhance not only the trainees but also their subordinates' competency and self esteem. This can be a crucial primary prevention intervention. All of us are familiar with the previously competent soldier who becomes ineffective when placed in a new unit, or when a new First Sergeant takes over. In similar fashion, consultation with unit commanders regarding training schedules and principles of learning is crucial. Unit training schedules are rarely established to provide maximum learning (and thus maximum competency) and may indeed impede learning.

The military psychologist interested in primary prevention will spend most of his/her time consulting with units at various levels of command (the squad, platoon, company, battalion, division, etc.). Our focus should be upon decreasing stress and increasing soldiers' competency and self esteem, and building internal support groups. Secondary efforts can be directed towards providing external support groups (others such as the Chaplain, Social Work, Red Cross, AER, etc. have this as a major mission). Intervention aimed at reducing physiologic defect is best left to physicians, Community Health nurses, and preventive medicine personnel.

The adoption of primary prevention principles by military psychologists will undoubtedly be resisted. The military psychologist is typically trained in secondary and tertiary prevention, not primary prevention. The need to apply primary prevention principles within the U.S. Army (during both peace and combat) is clear. The application of these principles to active duty soldiers will act to increase unit effectiveness, increase individual soldiers' competence, and decrease Chapter 13 and Chapter 14 discharges. Some will, of course, continue to need psychological treatment (secondary prevention) and this should be provided. Our role in the AMEDD is a considerable one and some may not initially see primary prevention as a way of "preserving the fighting strength." Our role in primary prevention is, however, crucial, and is perhaps the best way to "preserve the fighting strength."

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Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

THE ARMY PSYCHOLOGIST AND ORGANIZATIONAL EFFECTIVENESS  
"A CHALLENGE OF CONSULTING SKILLS AND A CALL FOR ACTION"

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Organizational Effectiveness offers a unique challenge to the total armamentarium of Army psychologists. In particular, it presents a special opportunity to expand and sharpen consulting skills. Organizational Effectiveness may be defined as the systematic application of selected management and behavioral science skills and methods to improve how the total organization functions to accomplish assigned missions and increase combat readiness.

The Army psychologist can assume one of three important roles in furthering the OE effort. First, the opportunity exists for a limited number of psychologists, who have an interest in and an aptitude for consulting, to attend the 16 week OE Staff Officer Course at Fort Ord, California and then function for a tour as the Organizational Effectiveness Staff Officer at a medical center, medical command, or large army hospital. The second opportunity offered psychologists is to act as a "consultant to consultants." That is become a resource person for OESOs at their present installation. Finally, for those who have a vigorous community mental health command consultation program, the possibility exists to make it even more meaningful for the commander by sagacious cooperation and co-planning with local OE efforts for a total systems impact.

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DEVELOPING A SEXUAL ASSAULT MANAGEMENT PROGRAM  
FOR A MILITARY HOSPITAL OR POST

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PURPOSE

With the expanded enlistment of female soldiers, problems of sexual abuse and sexual assault are also increasing. This seminar is designed to present, step-by-step, how a research project examining sexual assaults at Fort Sam Houston (presented at Montreal APA, 1980) led to the improvement of the BAMC Sexual Assault Medical Management Program and to the implementation of a Post Sexual Assault Management Group. The process used at Fort Sam Houston can be implemented at any military installation to effectively attend to an increasing problem.

- I. Summary of research project.
- II. Discussion of design, purpose and implementation of BAMC Sexual Assault Medical Management Program.
- III. Discussion of design, purpose and implementation of Fort Sam Houston Sexual Assault Management Group.
- IV. Preventive Education Pilot Programs.
- V. Questions and answers.

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Analysis of Sexual Assaults at A Major Military Post  
2 Sexual Assault Data Questionnaires  
DA Form 4700 (BAMC OP 427 & 428)  
FSH Sexual Assault Crisis Card



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THE PSYCHOLOGIST AS THE EVALUATOR  
OF SOLDIERS THROUGH COMMAND CONSULTATION:  
A MODEL OF FAMILY SYSTEMS UNIT CONSULTATION

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The assessment of soldiers through Command Consultation using a Family Systems Unit Consultation approach provides an efficient and comprehensive way to view a soldier's problem(s) within the context of his unit.

The Family Systems Unit Consultation (FSUC) is a group session involving a soldier/patient and certain unit representatives. This group approach can greatly assist the Division Psychologist in evaluating, treating, and recommending disposition for management of soldiers. The FSUC is used especially for soldiers whose sources of distress are from within the unit family system (i.e., Company, Battery, Battalion, Brigade, Regiment, etc.). The military unit is viewed as the soldier's family system. Problems starting inside (i.e., Human Relations, interpersonal relationships) or outside (i.e., martial/family) of their military units can negatively affect their job performance, and this decreased performance can cause additional problems for unit leaders. When the basic problems are lack of communication, mutual distrust and misunderstanding, the FSUC is especially effective. The soldier may perceive that he/she is not being heard, is not valued by the unit, is discriminated against, is not respected, etc. These problems and similar problems can affect a soldier's motivation to work with the unit in performing its mission. These problems, if not resolved, can cause the soldier to reach an exhaustive state and experience a moderate to severe depression. I have treated a substantial number of soldiers who were suicidal and some also homicidal due to severe misunderstandings in their units. Evaluating some soldiers alone without their unit representatives does not provide sufficient information for the psychologist who needs to know more about the soldier's job setting, and sources of stress and relationships within their (family) units.

A goal of the FSUC is to familiarize everyone involved, in the session, with the presenting problems of the soldier/patient. The psychologists encourage open communication from all participants. The patient and the unit representatives present their perspectives of the soldier's problems. The participants in the FSUC session are the commander, 1st Sergeant, immediate supervisor of the soldier, a 91G (Behavioral Science Specialist)\* and, the psychologist.

\*91G's are involved whenever it is possible.

The Division Psychologist serves as a consultant to the soldier's unit. His/her primary goal is to assist commanders in performing the overall mission of the Division by evaluating, treating, and/or preventing, mental health problems and casualties, and returning to duty as many functional soldiers as possible. The Psychologist/Consultant focuses on increasing the functioning of the total family system. As a family systems advocate, the psychologist does not have a bias toward the soldier, his commander, or any other representative of the unit; he is primarily concerned with the total family system.

The psychologist's goals as a consultant during the FSUC group session are: (1) To identify and clarify problems presented by the soldier and his unit representatives; (2) To explore alternatives and ways that the soldier and/or unit members have tried to resolve the problems; (3) To make recommendations to the soldier and unit leaders to resolve problem(s) (i.e., treatment and management recommendations). (4) To teach communications, interpersonal, leadership, and management skills. Note: Teaching is integrated throughout sessions when appropriate. It is also very necessary in many cases to teach about mental health issues, i.e., what is depression, how does it affect performance?

These goals are presented to the participants early in the FSUC session in order to align expectations of the group members. A brief explanation of the psychologist's role as a family (unit) advocate is given along with a statement of his responsibility for evaluating, treating, and preventing mental health casualties.

After the explanation of the psychologist's goals and role, the steps involved in the FSUC session are briefly presented. Basically the steps are, first, giving the patient (soldier) his/her opportunity to present the problems from his/her perspective; second, other unit members present their perspectives on the soldier's problem(s); third, the psychologist summarizes the problem(s); fourth, there is a discussion of the past efforts (if any) of the soldier and unit members to resolve the problems; fifth, present alternatives are discussed; sixth, psychologist presents recommendations for treatment and management; and seventh, feedback is encouraged from all involved and further planning is completed. This brief but specific orientation to the FSUC process is followed by a question/answer period to be sure that everyone is clear on what is to occur. They are told that these sessions normally take one hour. Everyone is also asked to not interrupt when another is speaking and to take notes in order to retain their thoughts (responses) about what is being stated. The sessions tend to run very smoothly after all procedures are clarified.

Every FSUC session (about forty) that I initiated and completed in a recent three year tour with an Infantry (Mechanized) Division, was very efficient and effective. Unit members became more familiar with each other's perspectives on the soldier's/patient's problems. This familiarization which developed in a "neutral" atmosphere (my office) lead to a better understanding, and a somewhat fresh start on old frustrating problems. Recommendations were presented and corrective

actions were taken. A very significant case involved eight unit members and a soldier/patient who was slated for a Bad Conduct Discharge (B.C.D.). His Lieutenant Colonel, Commander, present and past Company level commanders, 1st Sergeants, and some supervisors were convinced of his "dirty laundry" status. He, in their estimation, had served 18 months of worthless service. Time and space do not permit me to give the particulars of this case, but briefly stated, the primary problem was a history of severe communication problems between the soldier and his unit leaders. After, at least two hours of the FSUC session, the LTC left and said he would notify me of his decision. On the next day he called to say that based upon the information gathered during the session, he had decided to drop the B.C.D. and give the soldier an Article 15. The FSUC results indicated that the soldier was responsible for some of the events over the 18 month period, but the unit leaders also shared in responsibility for some of the events. This soldier was rehabilitated and is now serving as a functional soldier.

Some FSUC sessions are as challenging as the one just mentioned, and do call for more than one hour, and also required specific training and experience on behalf of the Division Psychologist.

My observations indicated that the following training and experience are helpful to have as the FSUC leader in a military setting:

- (1) Familiarity, experience, and comfort with group dynamics and role as a group therapist.
- (2) Familiarity, experience, and comfort as a Family Therapist.
- (3) Familiarity with military unit organizational structure (i.e., Company, Battery, Battalion, etc.).
- (4) Familiarity with military chain of command.
- (5) Familiarity with overall mission of military units in your Division.
- (6) Familiarity with major sources of stress of soldiers in various units.
- (7) Familiarity with roles of unit members, i.e., Leaders, Commander, 1st Sergeant, Platoon Sergeants, average lower enlisted soldier in a given unit.
- (8) Familiarity with positive reinforcers for soldiers in the division.
- (9) Familiarity with Human Relations problems in military units, i.e., racial, sexist, and cultural difference problems.
- (10) Confidence in self as a psychologist who is capable of serving as a consultant/FSUC leader.

The above training and experience has proven to be very helpful to me as a Division Psychologist. My past experience as a platoon leader, and company commander and staff officer, has definitely assisted me in the development of the FSUC approach. Knowledge of the military system(s) is really essential to being a consultant (i.e., FSUC leader). A combination of clinical and military organizational knowledge and experience makes for an ideal background for the Division Psychologist.

→ The Family System Unit Consultation is a very effective and efficient way of evaluating a soldier within the context of his unit. The treatment and/or management plan is more practical and is realistically focused on the soldier's problem area(s). The accuracy of the recommendations for corrective actions is due to the comprehensiveness of the FSUC sessions. My results strongly indicate that this is a tool that is cost effective. I strongly encourage my professional colleagues in Psychology to consider using the FSUC model.

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INTERPERSONAL TOUCH IN A COUNSELING INTERVIEW:  
PHYSICAL CONTACT HAS POSITIVE EFFECTS

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In recent years, nonverbal behaviors have received increased attention from researchers interested in variables that may influence a client's progress in therapy and counseling. Reading journals one encounters both theoretical (e.g., Argyle & Dean, 1965; Patterson, 1976) and empirical attempts to explain the way nonverbal gestures are interpreted and to predict how such behaviors on the part of the counselor/therapist may affect the therapeutic process (e.g., D'Augelli, 1974; Genthner & Moughan, 1977; Tepper & Haase, 1978; Hill & Gormally, 1977; Knight & Bair, 1976). The assumptions underlying much of this research are that quality communication is the essence of therapy, and since nonverbal and verbal channels are involved in the communication process, it is important to understand the role of each.

It is interesting to note that within the general nonverbal literature and in the counseling and therapy literature, certain nonverbal modalities such as eye contact and interpersonal distance have received a lot of research attention while others, particularly touch, have hardly been studied at all. Sidney Jourard (1966, 1968), one of the first psychologists to consider studying touch systematically, commented on this:

As investigators, we have encroached upon many realms deemed sacrosanct. We have inquired into people's sex lives, probed their religious sentiments, peeped into their unconscious fantasies, we have even eavesdropped on the psychotherapeutic interview. But for all this, we know little about the conditions under which a person will permit another to touch him, the meanings people attach to touching and being touched, the loci of acceptable touch, and little of the consequences of body contact. It is as if the touch-taboo most of us learned in childhood has produced a scotoma of our professional vision, making us describe man in our text books as if he did not get closer to his fellows than a foot or so.

The situation has probably improved somewhat since Jourard wrote this in the early 60's, but there is still only a small empirical

literature on the effects of touch. It is particularly surprising that touch has so rarely been studied in relation to therapy outcomes, since it is potentially a very salient nonverbal stimulus. Anthropologists such as Ashley Montagu (1971), Edward Hall (1966), and Lawrence Frank (1957) have suggested that touch is the most powerful of the nonverbal modes. Intuitively, we are all aware of the significance of being touched or touching. It is an experience that is almost always attended to. Developmentally, touch is one of the first infant systems to myelinate and begin to function and anyone familiar with Piaget's work knows the importance he accorded to tactile exploration in the definition of the self. Also, if we look at our language, we find numerous expressions involving touch suggesting its significance (e.g., hands-off, handle with care, keep in touch, I am touched, rubbing someone the wrong way, certain strokes for certain folks, etc.).

All this suggests that tactile contact is a very important channel of communication. So why hasn't it been studied in relationship to therapy or counseling? The lack of research probably stems from ambivalent attitudes concerning the usefulness or appropriateness of touch in these contexts. While current humanistic models of therapy (e.g., Jourard, 1968; Perls, 1969; Rogers, 1942) assume that some forms of touch may facilitate the development of openness and sharing on the part of the client, in traditional psychoanalytic perspectives touch was designated as taboo.

Unfortunately, these conflicting views cannot presently be resolved because we know very little about how tactile contact may influence the feelings or behavior of clients. However, it is interesting to speculate why touch got such a bad name in psychoanalytic circles. It is clear that Freud was very aware of the importance of nonverbal gestures. Early on he wrote:

If his lips are silent, he chatters with his finger tips, betrayal oozes out of him at every pore.

Also it seems that Freud used stroking and massage in his early practice. However, as a result, according to Mintz (1969) he and his associates were considered to be sexual perverts which is probably one reason why touch became taboo. In addition, the "laying on of hands" has traditionally been associated with faith healing, magic and religion, and psychoanalysis wanted to avoid any appearance of being unscientific.

Turning to the experimental literature on touch, there are both animal and human studies. The most outstanding animal work are the famous Harlow (1971) monkey studies demonstrating the importance of contact comfort. Among the human studies on foundling infants conducted by Spitz (1946) which showed that infants failed to thrive if they lacked physical contact even though their other bodily needs were taken care of. Most of the research on adults has not investigated tactile contact in natural settings. However, there are a few

studies that have examined the effects of touch in settings analogous to a counseling/therapy context. For example, Aguilera (1976) investigated physical contact between patients and staff in a psychiatric hospital and found that touching elicited approach behaviors from patients and improved their rapport with the staff. Nurses, when they touched, were more effective in establishing and maintaining verbal interaction with psychotic patients than in no touch conditions. Further, a study by Pattison (1973) examined the effect of touch on client self-exploration in a counseling interaction. The findings showed that clients who were touched engaged in more self-disclosure than control subjects, but no significant relationship was found between touch and client perception of the therapy experience.

Clearly, touching a person can mean many things, an expression of caring, a desire for intimacy, sexual attraction, dominance. On the basis of theoretical work on nonverbal communication by Altman (1975), Argyle & Dean (1965) and Patterson (1976), it could be expected that any of these messages might elicit a positive reaction if it is perceived as appropriate to the relationship between individuals, isn't more intimate than the recipient desires, and doesn't communicate a negative message (cf. Fisher, Rytting and Heslin, 1976). With these parameters in mind, the present study was undertaken to further investigate touch as an important nonverbal mode of communication. The experiment was designed to yield data relevant to a number of questions not adequately addressed in past research. For example, the only study to assess the effects of touch in an "outpatient" clinical context (i.e., Patterson, 1973) used only female subjects, so that the response of males to tactile stimulation in that setting remains an empirical question. Research demonstrating different reactions of males and females to the same touch (Fisher et al., 1976; Whitcher & Fisher, 1979) suggests the possibility of sex differences, which could have practical and theoretical consequences. Further, in the Patterson (1973) study, although differences between touch and control groups were not significant on the evaluative measures, there were consistent trends which suggested a potential relationship between touch and client perception of therapy. This relationship was explored further in this study. In addition, no research to date has looked at whether the effects of touch may be moderated by individual differences in tactile history or prior attitudes toward seeking help for personal problems. The design of this experiment included gathering data on these two variables in order to examine their influence on the therapeutic effect of touch.

To explore these experimental questions, subjects were randomly assigned to touch or to no touch conditions for a counseling interview. Experimental subjects were touched briefly on the hand, shoulder, and back several times during the interaction by a male or female counselor. Because the counseling context is one which is perceived by most individuals as supportive, we expected that women and men would experience a touch meant to convey care and concern as a positive message appropriate to the situation, and of a comfortable level of intimacy. Further, it was predicted that individuals in touch conditions would make more favorable evaluations of the counseling experience than individuals in control conditions.

While it was expected that all touch groups would rate the counseling experience more positively than no-touch groups, we anticipated that there would be differences among touch groups in terms of the magnitude of the effect of touch. We based this prediction on the notion that in our culture, same sex intimacy is more prohibited for males than females. Thus, we expected that the strength of the touch effect would be equal when males and females were touched by an opposite sex counselor, but that the effect of touch would be smaller in situations where male counselors touched male clients than when female counselors touched female clients. In no case did we expect touch subjects to evaluate the counseling experience less positively than controls; only that the degree of positive response would vary as a function of the sex composition of the counseling dyad.

## METHOD

### Subjects and Design

To test the above hypotheses 108 (53 males, 55 females) subjects randomly assigned to touch-no touch and sex of counselor conditions, participated in a 25 minute interview related to career issues. Four doctoral students in counseling (2 females, 2 males) conducted interviews with subjects in both conditions. Six weeks prior to running the experiment, we gathered data on subject tactile history and general attitude toward counseling for use as covariates in the data analysis. As a measure of tactile history, subjects completed the Jourard Body Accessibility Scale (Jourard, 1966) which measures an individual's readiness to permit others (mother, father, same and opposite sex friend) to physically contact their body. The attitude toward counseling scale was one that we developed in pilot research. Subjects evaluated the items "Seeking the help of another to deal with personal problems," and "Counseling with a professional as a means of dealing with personal concerns" on a series of evaluative semantic differential scales. Psychometric analyses indicated that this was a satisfactory measuring instrument.

### Experimental Procedures

The counseling interviews took place at the University Counseling Center. Counselors were provided with a basic script for the interviews which was intended to serve as an agenda, while not stifling spontaneity in the client. Further, counselors were instructed to focus the client on career issues to provide uniformity of verbal content between groups. However, if a client wanted to deal with some other issue, counselors were advised to respond naturally.

Prior to running the experiment, counselors were trained to conduct the interview and execute the touch manipulation. The training



sessions involved demonstrations of the procedure and a number of role plays of the interview with and without the touch, to insure that the manipulation was administered uniformly and that the behavior of counselors was otherwise similar in the experimental and control groups. In experimental groups, subjects were touched by the counselor at several points during the interview. First, the counselor shook the hand of the client as she/he entered the room. Then while moving into the room, the counselor placed his/her hand on the client's back in a guiding motion. During the session the counselor touched the client three times on the hand or lower arm. At the close of the interview, the counselor again placed her/his hand on the client's back as they walked toward the door and concluded the interaction with a hand shake. In control conditions, while counselors followed the same basic script, they were instructed not to initiate any bodily contact with the client, the only exception being to touch the client's hand briefly in response to a client initiated hand shake, if this occurred. Immediately after the interview all subjects completed a series of scales designed to tap evaluative responses to the counseling experience.

#### Measure of Client Evaluation of the Counseling Experience

This measure consisted of 12 seven point bipolar adjective scales adapted from the evaluative dimension of the Osgood Semantic Differential (e.g., good-bad, valuable-worthless, sweet-sour) (Osgood, 1957). Subjects were instructed to rate their counseling experience along these dimensions. Psychometric analyses of the scales making up this measure were performed in pilot research. Test retest reliability established over a six week period was .89, and the Alpha internal consistency for the 12 scales was .85. The strength of these coefficients demonstrates the measure to be psychometrically sound.

After completing the dependent measure, subjects were thoroughly debriefed, paid \$3.00 for their participation, and requested not to discuss the nature of the experiment with students who might be subjects at a later date.

#### RESULTS

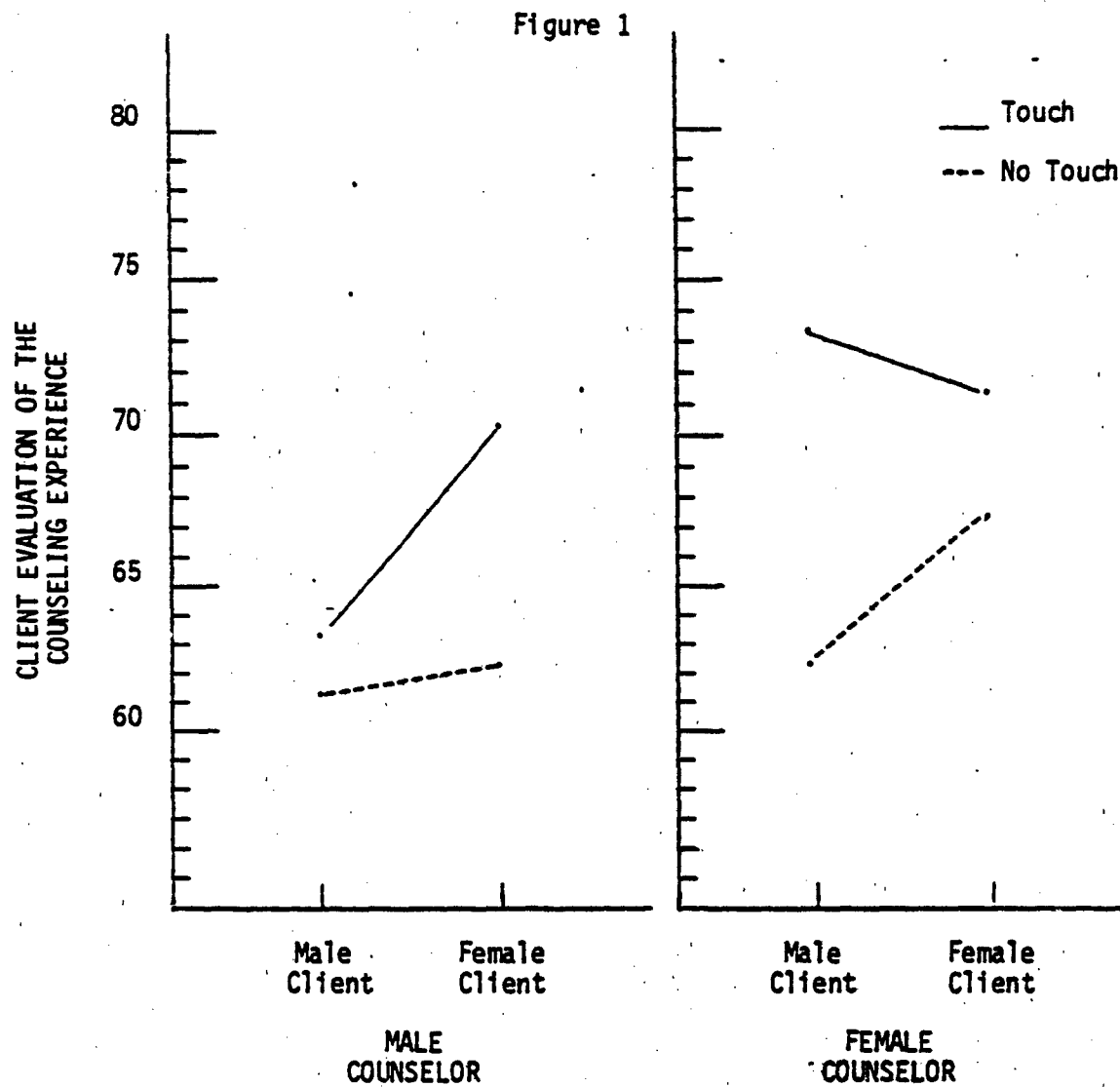
The data were analyzed using a multiple regression procedure. Body-accessibility and attitude toward counseling were treated as covariates and entered in the analysis as the first two predictor variables. Neither emerged as a significant covariate and the interaction of each with touch was not significant. What the analysis did reveal was a significant main effect for touch,  $F(1,106) = 7.87$ ,  $p < .01$  and a significant three-way interaction involving touch, sex of counselor, and sex of client,  $F(1,105) = 6.32$ ,  $p < .02$ . The interaction indicated that while individuals who were touched evaluated the counseling experience more positively than controls,

the magnitude of the touch effect was influenced by the sex composition of the dyad (see Figure 1). Tukey post-hoc comparisons showed that the strongest positive effects occurred when female counselors touched male clients and when male counselors touched female clients. Where the counselor and the client were of the same sex, while the main effect for touch prevailed, the size of the effect was reduced, with the smallest gain occurring in interviews where male counselors touched male clients.

## DISCUSSION

In summary then, the overall pattern of results supported the hypothesis that touch in a counseling context would have positive consequences. The interaction supported the additional prediction that the size of the touch effect would be smaller in situations where male counselors touched male clients than when female counselors touched female clients. The results also showed that the effect of touch was not significantly influenced by individual differences in tactile history or prior attitude toward counseling. The fact that the strongest effects occurred when clients were touched by an opposite sex counselor merits special consideration. One possible explanation is suggested by research which indicates that in the tactile history of both sexes opposite sex touching occurs more frequently than same sex physical contact. To the extent that this predominance of heterosexual touching reflects a preference for such contact or at least a greater familiarity with such contact, this may in part explain the stronger positive responses observed in the mixed sex dyads. It's also possible that in mixed sex counseling dyads, male and female clients may have interpreted the touch as sexual in nature. However, there is research which tends to argue against this possibility. Specifically, a study by Nguyen Heslin and Nguyen (1975) found that touches to the hand and/or shoulder area whether applied by a same or opposite sex other are perceived as nonsexual. Since their work was not done in a counseling context, however, it's not possible to entirely rule out an explanation based on sexual cues.

Considering for a moment practical implications, the results suggest that the use of touch gestures may facilitate the counseling process by increasing the likelihood that the interaction will be positively evaluated. It appears that counselors can effectively use touch to enrich client experience. The results point out the possibility of setting aside some of the reservations that practitioners often experience when they think about physically contacting a client. However, while the effect of touch in the present context was uniformly positive, it is obvious that under certain conditions (e.g., overtly sexual intent) touch could have very negative effects. Finally, the findings indicate that clients will benefit from counselors who are comfortable communicating in nonverbal as well as verbal modes and suggests the potential of introducing training in nonverbal communication as a concomitant of graduate programs in counseling and therapy.



While the present results are promising, there remain a number of issues that need to be addressed in future research. For example, in this study the interaction focused on career concerns. Research involving touch needs to be conducted with problems of a more intimate nature for it remains to be shown if touch will have positive effects in a counseling experience which involves very personal self-disclosure and therefore increased vulnerability of the client. Also whether the present results will replicate with populations other than the college sample (e.g., severely emotionally disturbed) is an open question. Finally, future research needs to examine the effects of touch in counseling on response dimensions other than those assessed in this study (e.g., on behavioral responses).

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RESTRUCTURING AMEDD PSYCHOLOGY FOR THE 80s  
CURRENT STATUS AND FUTURE DIRECTIONS

Cecil B. Harris  
Psychology Consultant

On 26 November 1979 I was selected as the Clinical Psychology Consultant to The Surgeon General and to the Chief, Medical Service Corps. In this capacity I provide advice concerning policies, programs, and issues relevant to the 68S career field to Generals Pixley and Young. For the past ten months, I have been attempting to assess the status of AMEDD psychology so that we can plan to meet the challenges of the eighties. This presentation will share with you much of what I have learned over the past ten months and provide a basis for projections for plans and policies of AMEDD Psychology.

On 12 December 1979, LTC Frank Sodetz, Chief, Division of Neuropsychiatry, Walter Reed Army Institute of Research (WRAIR) was selected as the Research Psychology Consultant to The Surgeon General and the Chief, Medical Service Corps. He is the primary career monitor for the 68T career field.

Recent selection board results (1980) have been favorable toward psychology. Although total selections were only 53.5% for O5 we had 100% (Blankenship, Chermol, Clement, Gillooly, Lenz, Schopper, and Ingraham). We also did very well for selections for O4. Only 64.8% of the total number of AMEDD officers considered in the primary zone were selected. Psychologists selected were Beach, Bender, Blum, Brooks, Chestnutt, Gifford, Greenfield, Grill, Rosenheim, Siebold, and Waddell. As a study by Major Paul Harig has shown, AMEDD psychologists have comparable promotion opportunity to major AUS relative to all first-considered MSC promotion eligibles in the primary zone. Major Harig concluded that the apparent lack of promotion at O5 and O6 is "an artifact of the psychologist force structure, which is predominantly company grade." Table 1 shows all active duty AMEDD psychologists by grade and Specialty Skill Indicator as of September 1980. These data, as did Major Harig's limited data, suggest that AMEDD psychologists enjoy a promotion rate comparable to other MSC officers when there are enough to be considered for selection.

AMEDD psychologists have been mostly male and caucasian. Recruitment initiatives are showing some success in improvements in both these areas. Table 2 reflects that seven of 147 psychologists on active duty as of September 1980 were black. Table 3 reflects that 10 of the 147 psychologists are female. Clearly continued improvement in this area is a planning objective for the eighties.

The Defense Officer Personnel Management Act (DOPMA) will make significant changes in the management of the military careers of uniformed psychologists and all other officers. At this point, no one is really sure what the impact will be on the officer corps. What is clear, however, is that the officer category structure will probably change. Table 4 depicts the status of AMEDD Psychologists by category. Twenty-five of the 147 psychologists are regular Army (RA). Seventy-six percent of these regular Army officers are Clinical Psychologists (68S). These data seem to suggest a planning objective for the eighties to increase the number of (RA) research psychologists (68T). It is likely, however, that DOPMA will mandate an all career force after ten or so years of service making this an unnecessary target objective.

Military education and training are important elements of the promotion decision. Since sitting on a promotion board in 1977, I have continuously stressed this fact. Table 5 reflects the level of training for the 147 active duty psychologists. As compared with other MSC officers, psychologists have not done well in this area. Only 44 of the 147 psychologists have completed the advanced course, and only five have completed the Command and General Staff College (C&GSC). Colonel Robert Nichols is still the only psychologist who is a senior service college graduate and I am the only Health Care Administration (HCA) graduate. Although six psychologists have completed fellowships, this is still a very poor record. Clearly, increased participation in education and training programs is an important planning objective for the eighties.

Over the past few years the requirements and authorizations for 68S and 68T have been in constant flux. Management of our manpower requires close monitoring of these changes. Table 6 reflects the status of 68S, 68T, and 68U from FY 76 through FY 81:

The data reflects that 68T has done well and continues to make progress. On the other hand, 68S remains fairly stable in terms of requirements but has lost ground in actual numbers. As the input from the Graduate Students Program (GSP) dried up 68Us made up the slack. The 68Us are now hurting our ability to progress in certain areas. All 68Us must attain 68S status as soon as possible. The 68U SSI is only a carrier SSI for the Clinical Psychology Internship Program (CPIP). Current policy precludes holders of this SSI from applying for Voluntary Indefinite status (VI). Chief MEDCEN and MEDDAC psychologists must constantly work toward increasing authorizations to the level of requirements. Without authorized spaces we are unable to assign psychologists even though Medical Treatment Facilities (MTF) may have the requirements to justify an additional staff member. Remember, the commander may use his MSC authorization any way that he desires. Thus, the future of AMEDD psychology depends on psychology's ability to justify its existence with the commanders. This is an urgent planning requirement for the eighties.

Figure A depicts the number of AMEDD psychologists by grade and SSI. Figure B depicts the percentage of AMEDD psychologists by grade and SSI. Figure C depicts the adjusted percentage of AMEDD psychologists by grade and SSI. Figure D reflects the total adjusted percentage of AMEDD psychologists by SSI. These figures collectively reveal that 2% of the 147 psychologists are serving in the grade of O6; all are clinical psychologists (68S). A total of 10.2% are serving in the grade of O5, 7.4% of whom are clinical psychologists (68S) and 2.7% research psychologists (68T). There are 31.2% of psychologists serving in the grade of O4, 22.4% of whom are clinical psychologists (68S) and 8.8% research psychologists (68T). Of the 56.4% serving in the grade of O3, 30.6% are clinical psychologists (68S), 16.3% research psychologists (68T) and 9.5% All But Dissertation (ABD) Clinicians (68U). It is an important planning objective for the eighties to have only fully trained clinical psychologists (68S) serving in operational roles.

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Insert Figures A thru D about here

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Mid-career attrition continues to be a significant factor in the career management of AMEDD psychologists. The AMEDD has attempted to improve the career attractiveness of military psychology through development of clinical fellowships in child psychology, neuropsychology, community psychology and medical/health (behavioral medicine) psychology. Figure E, based on MAJ Paul Harig's research depicts the retention rates for 68S psychology accessed during the period 1966-1975. It seems clear from the data that we lose people at the three, six and seven year points. Career incentives in the eighties, e.g., post-doctoral fellowship policies, are designed to improve retention at these decision points. The child psychology fellowship has produced three graduates since the 1976 initiation year, two are still on active duty. The first neuropsychology fellow, Major Lloyd Cripe, is scheduled to complete his training in September 1981. We hope to start the first Post Graduate Training Program in Community Mental Health (Community Psychology) during FY 81. It is also planned that the first AMEDD psychologist to train in medical/health (behavioral medicine) will begin training at the Uniformed Services University of the Health Sciences (USUHS) during FY 81. These training programs will continue to be important objectives for the eighties.

Currently, we have 68 psychology students in the Health Professions Scholarship Program (HPSP). These students will access into the Clinical Psychology Internship Program (CPIP) over the next six years. The majority of these students will input during the 80 through 83 CPIP training years. Table 7 reflects the anticipated input of these HPSP students. As of 1 October 1980, new applications for HPSP will be restricted to students of medicine and osteopathic medicine only. Thus after the 1983 internship year we can anticipate the same unpredictable declining CPIP accessions which occurred after the end of the Graduate Student Program (GSP). This is clearly one of the planning challenges for AMEDD psychology in the eighties.



We are making progress in institutionalizing AMEDD Psychology. Although Clinical Psychology began in the AMEDD in 1945, full recognition and understanding of its role has not been realized. This is made more difficult because we are changing our role and practice rapidly. Under these circumstances the system has not responded as quickly to these changes as we might like. Change is occurring however, throughout the AMEDD, but it often occurs at one or another MTF. It is my opinion that we have not exploited this progress by institutionalizing our successes. I therefore believe that an important objective for the eighties is to institutionalize AMEDD Psychology at every opportunity. One recent example is constructive credit. This is a policy used to provide equity among contemporaries entering active duty at different times because of education and training. The current (FY 80) internship procurement circular awards 42 months credit to September accessions; the forthcoming circular (FY 81) will award 48 months to interns and thus captaincy as the entry grade.

It is clear to all of us that the doctoral degree is the minimum educational credential for clinical psychologists. This has been so for almost 35 years. All 50 states have laws which restrict the title "psychologists" and specify that clinical psychologists are doctoral level behavioral scientists trained in the substantive areas of psychology dealing with biological, cognitive-affective, social bases of behavior and individual development. I was surprised to learn that this has not been fully institutionalized in the AMEDD. We must do something about this in the eighties and we must start now. Increased individual professionalism is one element and the other is tighter standards. The tighter standards are already in place and will soon be institutionalized in our circulars and regulations. We must each work towards increased individual professionalism. At the beginning of this symposium I asked each of you to complete a survey. The results are reflected in the Appendix. Several target objectives for the eighties are suggested by the results. It is my opinion that all career AMEDD psychologists should:

1. hold doctorates in psychology
2. be licensed in at least one state (especially if a health service provider)
3. be members of APA and AAP (membership in Division 19 is appropriate)
4. be trained in APA-approved clinical internship if a 68S
5. be listed in the National Register of Health Service Providers in Psychology (if a health service provider)
6. be graduate of resident advanced course and Command and General Staff College (C&GSC) - resident or nonresident

7. be diplomate American Board of Professional Psychology (ABPP)

8. have an area of (trained specialization, e.g., child, neuro-psychology, community, behavioral medicine, public health (MPH), administration (MBA, MHA, etc.)).

I hope each of you will strive towards increased professionalism in your qualifications and practice during the eighties. I can assure you that AMEDD psychology will be moving with you and institutionalizing these requirements as quickly as possible. For example, effective 1 January 1981, I have taken steps to operationalize the "Plus Experience" requirements for the proficiency designation (ASI), as shown in Table 1 of AR 611-101, as follows: a) Doctorate with eight (8) years experience plus certification in specialty by ABPP for ASI 9B. b) For ASI 9C, doctorate with four (4) years of experience plus listing in the National Register of Health Services Providers in Psychology. c) For ASI 9D, doctorate with one (1) year of experience plus licensure in one state for the practice of psychology.

This presentation has attempted to take a look at the current status of AMEDD psychology as of September 1980. By looking at our current status we hope to determine planning objectives for the decade of the eighties. We have made much progress in the past 35 years, but much remains to be done. Previous consultants and AMEDD psychologists deserve a lot of credit for getting us to this point. It is our task to restructure AMEDD Psychology for the 80s. To this end, I have asked for your active assistance. We have established four working committees to allow input from the "grass roots" of AMEDD Psychology to the policy making level. Constant vigilance is required to improve and institutionalize AMEDD Psychology. If you see things you want changed in AMEDD Psychology, submit your completed staff work through the committee chairperson to your consultant. Committee chairpersons are as follows:

Recruitment and Retention - LTC Gilooly and MAJ Bevet

Plans and Policy - MAJ Jeffrey

Professional Affairs - LTC McCormack and MAJ Rath

Education and Training - LTC Fishburne and MAJ Futterer

It should be clear that the future of AMEDD Psychology is in your hands.

I am confident you will continue to strive for professional excellence in conserving the fighting strength. A well institutionalized AMEDD Psychology of the highest professional quality guarantees that objective. "Restructuring AMEDD Psychology for the 80s" gives us all an important personal and institutional goal.

Figure A

NO. OF AMEDD PSYCH/SSI N=147

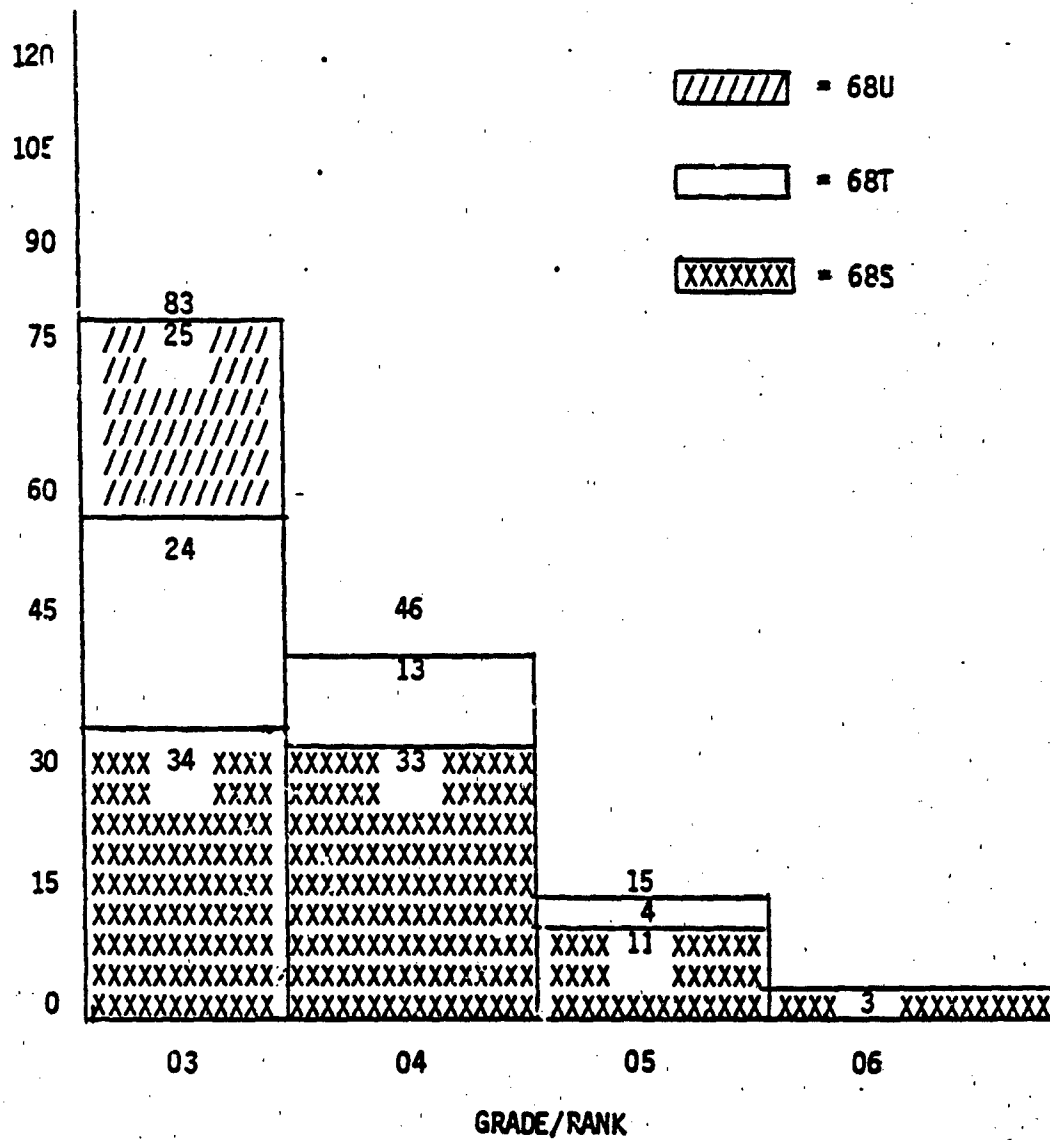


Figure B

PERCENTAGE OF AMEDD PSYCH/SSI N=147

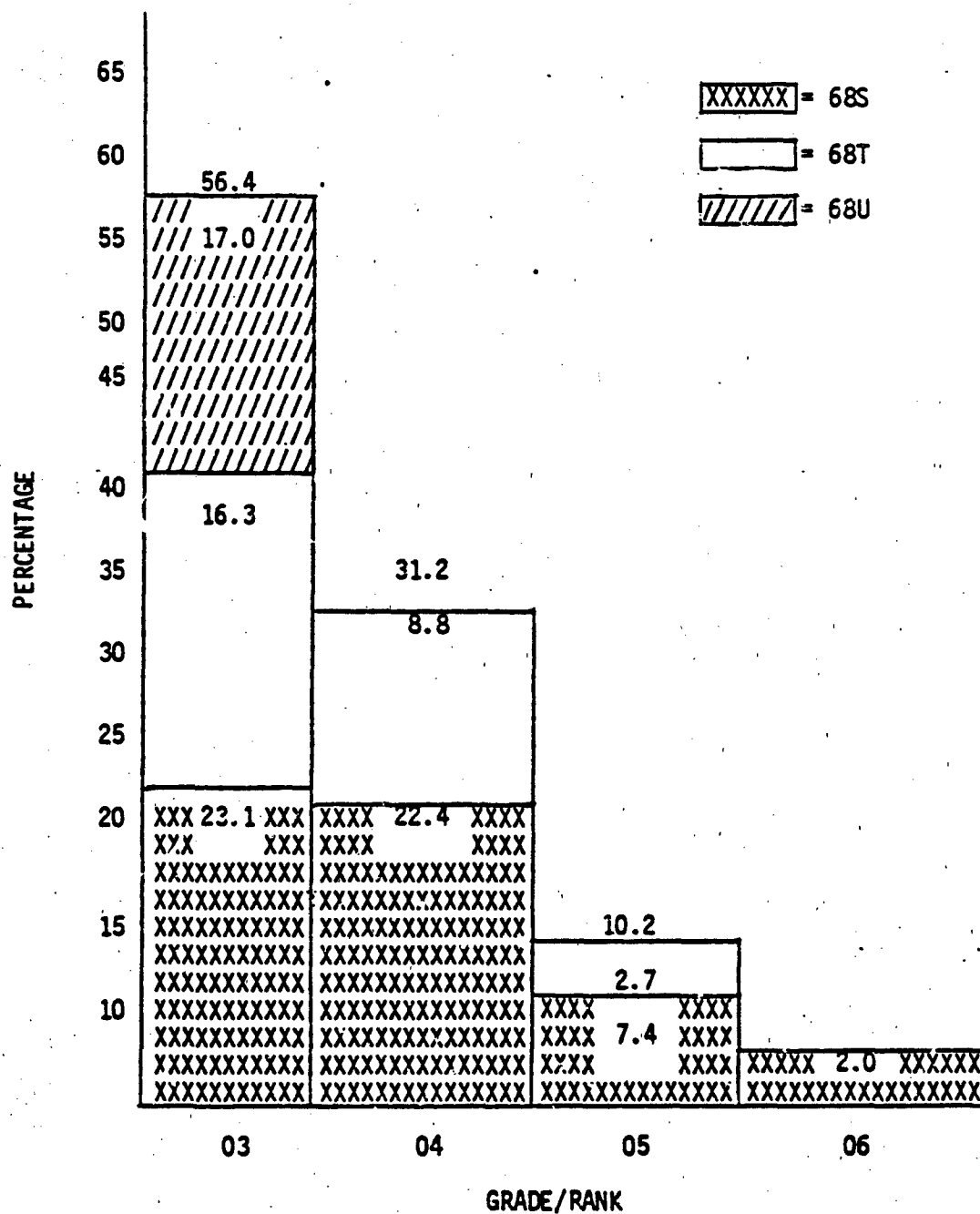


Figure C

ADJUSTED PERCENTAGE OF AMEDD PSYCH/SSI N=147

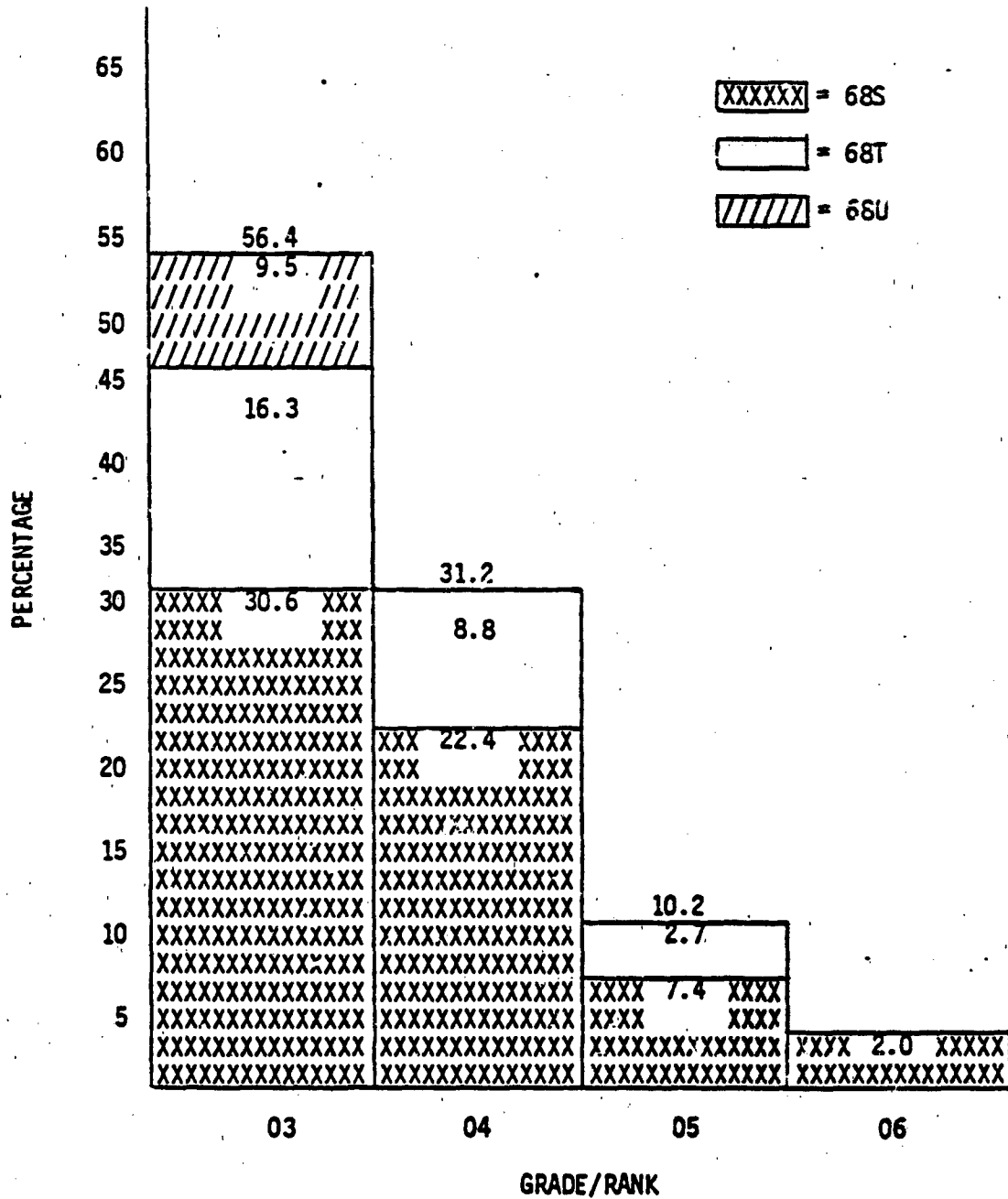
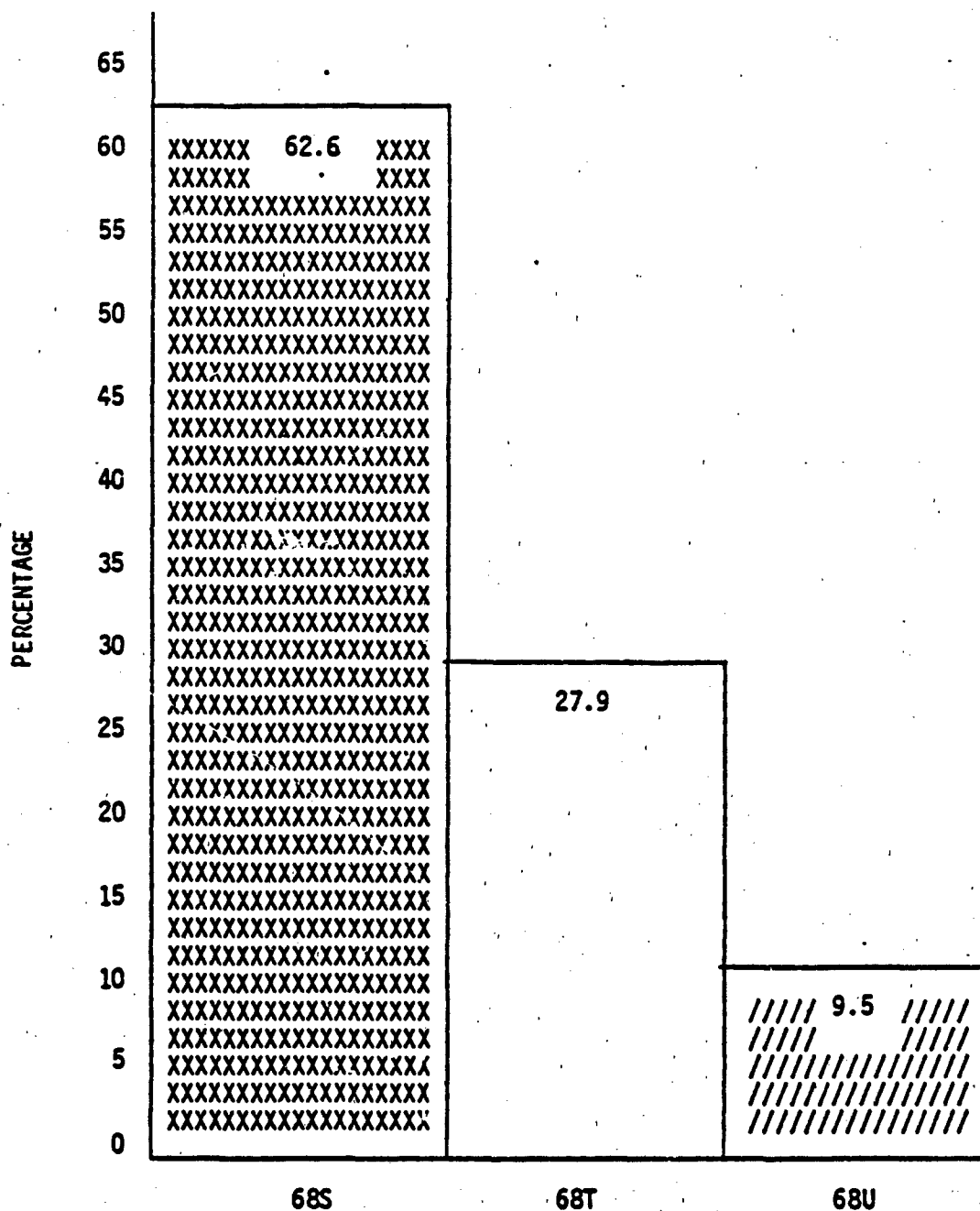


Figure D

TOTAL ADJ PERCENTAGE AMEDD PSYCH/SSI



SSI

Figure E  
Retention Rates for 68S SSI

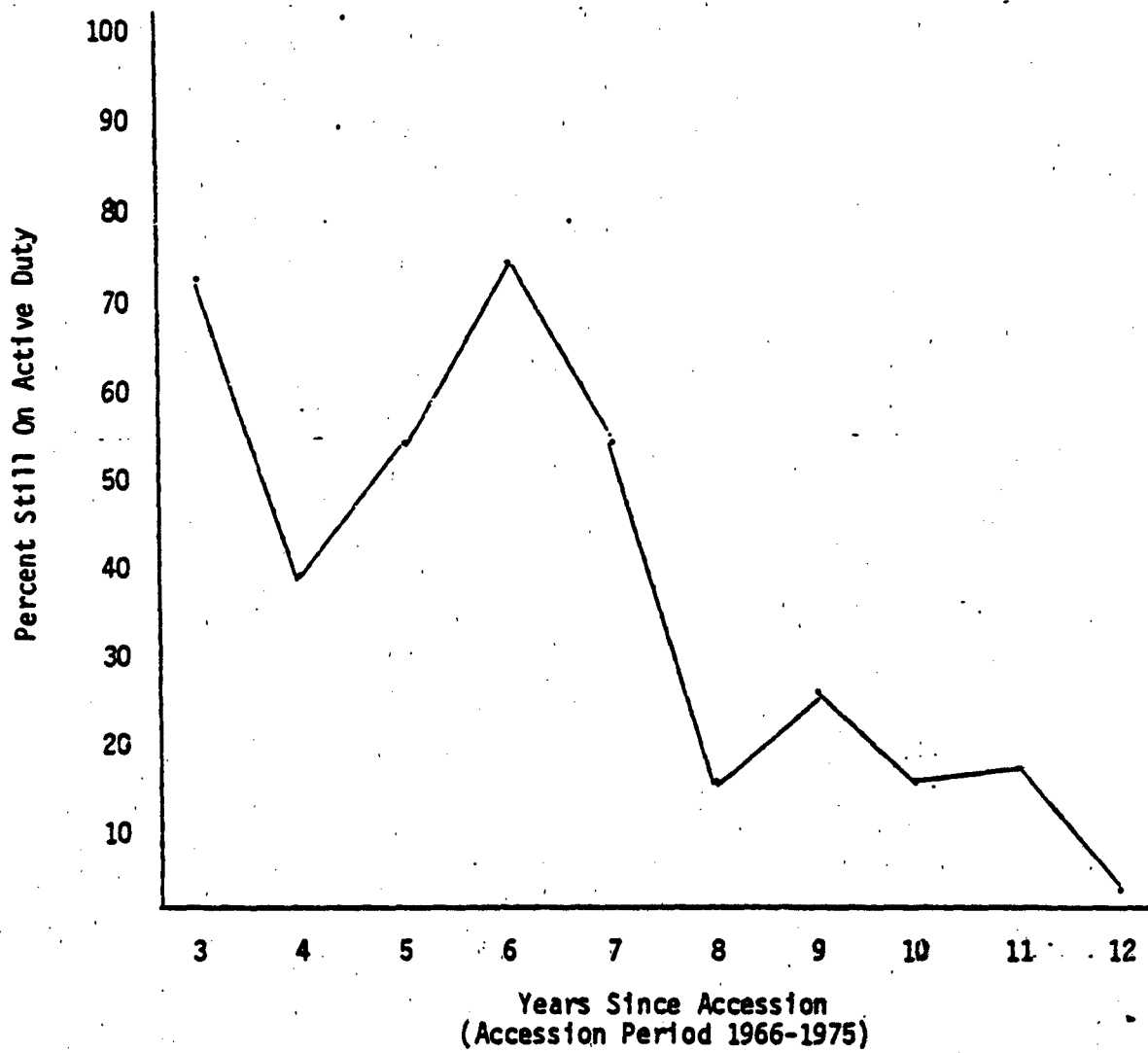


Table 1

## TOTAL/GRADE/SSI - ALL ACTIVE DUTY AMEDD PSYCHOLOGISTS

| GRADE          | 68S     |        | 68T |      | 68U  |        | TOTAL |        |
|----------------|---------|--------|-----|------|------|--------|-------|--------|
|                | NO.     | %      | NO. | %    | NO.  | %      | NO.   | %      |
| 06             | 3*      | 2      | -   | -    | -    | -      | 3     | 2      |
| 05             | 11      | 7.4    | 4   | 2.7  | -    | -      | 15    | 10.2   |
| 04             | 33      | 22.4   | 13  | 8.8  | -    | -      | 46    | 31.2   |
| 03             | 34      | 23.1   | 24  | 16.3 | 25** | 17.0   | 83    | 56.4   |
| 03 ADJ         | (45)*** | (30.6) | 24  | 16.3 | (14) | ( 9.5) | 83    | (56.4) |
| TOTAL          | 81      | 55.1   | 41  | 27.9 | 25** | 17.0   | 147   | 100    |
| TOTAL ADJ (92) |         | (62.6) | 41  | 27.9 | (14) | ( 9.5) | 147   | 100    |

\* 1 included not under AMEDD control

\*\* 14 included from CPIP

\*\*\* 11 (68U) health service providers added



Table 2

TOTAL: RACE/SSI  
ALL ACTIVE DUTY AMEDD PSYCHOLOGISTS

|             | 68S. |        | 68T |        | 68U |        | TOTAL |       |
|-------------|------|--------|-----|--------|-----|--------|-------|-------|
|             | NO.  | %      | NO. | %      | NO. | %      | NO.   | %     |
| Psych (A11) | 92   | (62.6) | 41  | (27.9) | 14  | ( 9.5) | 147   | (100) |
| Psych (C)   | 85   | (60.7) | 41  | (29.3) | 14  | (10.0) | 140   | (100) |
| Psych (N)   | 7    | (100)  | -   | -      | -   | -      | 7     | (100) |

Table 3

TOTAL: SEX/SSI  
ALL ACTIVE DUTY AMEDD PSYCHOLOGISTS

|             | 68S |        | 68T |        | 68U |        | TOTAL |       |
|-------------|-----|--------|-----|--------|-----|--------|-------|-------|
|             | NO. | %      | NO. | %      | NO. | %      | NO.   | %     |
| Psych (A11) | 92  | (62.6) | 41  | (27.9) | 14  | ( 9.5) | 147   | (100) |
| Psych (M)   | 87  | (63.5) | 39  | (28.4) | 11  | ( 8.0) | 137   | (100) |
| Psych (F)   | 5   | (50.0) | 2   | (20.0) | 3   | (30.0) | 10    | (100) |

Table 4

TOTAL: CATEGORY/SSI

|             | 68S |        | 68T |        | 68U |        | TOTAL |       |
|-------------|-----|--------|-----|--------|-----|--------|-------|-------|
|             | NO. | %      | NO. | %      | NO. | %      | NO.   | %     |
| Psych (A11) | 92  | (62.5) | 41  | (27.9) | 14  | ( 9.5) | 147   | (100) |
| Psych (RA)  | 19  | (76.0) | 6   | (24.0) | -   | -      | 25    | (100) |
| Psych (V)   | 73  | (60.0) | 35  | (28.6) | 14  | (11.5) | 122   | (100) |

Table 5

TOTAL: MEL-TNG/SSI.  
ALL ACTIVE DUTY AMEDD PSYCHOLOGISTS

|                     | 68S |        | 68T |        | 69U |       | TOTAL |       |
|---------------------|-----|--------|-----|--------|-----|-------|-------|-------|
|                     | NO. | %      | NO. | %      | NO. | %     | NO.   | %     |
| Psych (All)         | 92  | (62.6) | 41  | (27.9) | 14  | (9.5) | 147   | (100) |
| Psych (Adv CRS)     | 30  | (68.0) | 14  | (32.0) | -   | -     | 44    |       |
| Psych (HCA)         | 1   | (100)  | -   | -      | -   | -     | 1     |       |
| Psych (C&GSC)       | 5   | (100)  | -   | -      | -   | -     | 5     |       |
| Psych (SSS)         | 1   | (100)  | -   | -      | -   | -     | 1     |       |
| Psych (Fellowships) | 5   | (83.3) | 1   | (16.6) | -   | -     | 6     |       |

Table 6

Status of 68S, 68T, and 68U  
from FY 76 through FY 81

| SSI | FY 76                     |      |     | FY 77 |      |     | FY 78           |      |     |
|-----|---------------------------|------|-----|-------|------|-----|-----------------|------|-----|
|     | REQ                       | AUTH | ACT | REQ   | AUTH | ACT | REQ             | AUTH | ACT |
| 68S | 123                       | 88   | 91  | 115   | 90   | 80  | 116             | 97   | 88  |
| 68T | 31                        | 39   | 36  | 45    | 42   | 42  | 41              | 44   | 37  |
| 68U | 0                         | 0    | 10  | 0     | 0    | 14  | 0               | 0    | 8   |
|     | FY 79                     |      |     | FY 80 |      |     | FY 81           |      |     |
|     | REQ                       | AUTH | ACT | REQ   | AUTH | ACT | REQ             | AUTH | ACT |
| 68S | 121                       | 97   | 81  | 122   | 95   | 77  | 126             | 91   | 80  |
| 68T | 44                        | 46   | 43  | 39    | 37   | 40  | 46              | 43   | 44  |
| 68U | 0                         | 0    | 10  | 0     | 0    | 28  | 0               | 0    | 29  |
|     | Difference FY 76 to FY 81 |      |     | FY 81 |      |     |                 |      |     |
|     | REQ                       | AUTH | ACT | REQ   | AUTH | ACT | ACT/AUTH %      |      |     |
| 68S | + 3                       | + 3  | -11 |       |      |     | 88              |      |     |
| 68T | +15                       | + 4  | + 8 |       |      |     | 102             |      |     |
| 68U | 0                         | 0    | +19 |       |      |     | (29 ACT/0 AUTH) |      |     |

\* = APA-approved  
# = Counseling Psych

Table 7  
HPSP Input to CPIP

| 80                 | 81            | 82            | 83         | 84        | 85        | 86     | UNK        |
|--------------------|---------------|---------------|------------|-----------|-----------|--------|------------|
| Ball* (WBAMC)      | Nielsen*      | Wilson*       | Wright*    | Pollin*   | Stanczak* | Lewis* | Mayo*      |
| Long* (WRAMC)      | Hightower,M** | Saffie**      | Sharpe*    | Jacobs**  |           |        | Pope       |
| Miller (SBHAM)     | Hightower,N** | Daly**        | Hartig*    | Lucas*    |           |        | Robinson*  |
| Thomas** (SBHAM)   | Walters**     | Warren* (Ed+) | Schaefer*  | Brown**   |           |        | Weil*      |
| Waechter** (WBAMC) | DeVore,J*     | Corsino       | Hansen*    | Krick,A#  |           |        | White*     |
| Zingale* (DDEAMC)  | Donald*       | Appel         | Barnett*   | Ferguson* |           |        | Youngjohn* |
| Zitomer* (WRAMC)   | Marra*        | VanValin**    | Purviance* |           |           |        |            |
| Goodwin* (WBAMC)   | Guilmette**   | Miles*        | Spector*   |           |           |        |            |
| LeRay (DDEAMC)     | Carter*       | Crow          | Gavia*     |           |           |        |            |
|                    | Condit*       | Anderson*     | Nail*      |           |           |        |            |
|                    | Gonzalez*     | DeVore,K**    | Carie      |           |           |        |            |
|                    | DeGroot*      | Spak          | Trinidad   |           |           |        |            |
|                    | Delligatti**  | Bolter*       | Krick,R#   |           |           |        |            |
|                    | Bethell*      | Platoni       |            |           |           |        |            |
|                    | Mangiard      | Willoughby**  |            |           |           |        |            |
|                    | Hawkins*      |               |            |           |           |        |            |
| N = 9              | N = 16        | N = 15        | N = 13     | N = 6     | N = 1     | N = 1  | N = 6      |
| * = 7              | * = 15        | * = 10        | * = 10     | * = 5     | * = 1     | * = 1  | * = 5      |
| # = 2              | # = 5         | # = 5<br>1 Ed | # = 1      | # = 3     |           |        |            |

# APPENDIX

## Results of AMEDD Psychology Survey

68S

|                             |           |                                  |
|-----------------------------|-----------|----------------------------------|
| Number of Individuals with: | PhD       | 29                               |
|                             | PhD (ABD) | 2                                |
|                             | Ed. D     | 2                                |
|                             | MA        | 2                                |
|                             | Clinical  | <u>19</u> (degree not specified) |

N=54

### Areas of Specialization:

|                 |          |
|-----------------|----------|
| Clinical        | 10       |
| Counseling      | 10       |
| Ed. Psychology  | 2        |
| Adult Education | 1        |
| Community       | 2        |
| Social          | 1        |
| Developmental   | 1        |
| Physiological   | 1        |
| Experimental    | 1        |
| Personality     |          |
| Assessment      | <u>1</u> |

N=30

### Internship: APA - approved: 36

|     |                 |           |
|-----|-----------------|-----------|
| At: | WRAMC           | 7         |
|     | LAMC            | 5         |
|     | WBAMC           | 13        |
|     | SBHAH (Ft. Ord) | 8         |
|     | Civilian        | <u>13</u> |

N=36

### School:

|                                 |   |                            |          |
|---------------------------------|---|----------------------------|----------|
| USIU                            | 1 | University of Mississippi  | 1        |
| University of S. Carolina       | 2 | Rutgers                    | 1        |
| University of Southern Illinois | 3 | University of Denver       | 1        |
| N. Texas State University       | 1 | University of Georgia      | 2        |
| University of Texas             | 2 | University of Montana      | 1        |
| University of Arizona           | 1 | UNC - Chapel Hill          | 2        |
| Texas Tech                      | 1 | Loyola University          | 2        |
| University of Rochester         | 1 | Texas A&M                  | 1        |
| Arkansas University             | 2 | New Mexico State           | 1        |
| University of Tennessee         | 2 | University of Florida      | 3        |
| Washington University           | 1 | University of Utah         | 1        |
| Illinois Inst of Technology     | 1 | University of Minnesota    | 1        |
| US International University     | 2 | American University        | 1        |
| University of Toledo            | 1 | University of Utah         | 1        |
| Ohio State                      | 2 | Lehigh University          | 1        |
| Florida State                   | 1 | Brigham Young University   | 1        |
| Johns Hopkins                   | 1 | University of Delaware     | 1        |
| University of Chicago           | 1 | University of Rhode Island | <u>1</u> |

N=49

Number of Individuals with Fellowship  
and Other Postdoctoral Training

N=11

Area of Specialization:

|                          |   |
|--------------------------|---|
| Child and Family Studies | 1 |
| Health Education         | 1 |
| Child and Adolescent     | 3 |
| Community Psychology     | 2 |
| Neuropsychology          | 1 |
| Clinical Hypnosis        | 1 |
| Not Specified            | 2 |

N=11

Number States Each Individual Licensed in:

|          |    |
|----------|----|
| 0 States | 18 |
| 1 State  | 20 |
| 2 States | 9  |
| 3 States | 0  |
| 4 States | 3  |

N=50

Number Licensed in Each State:

|                |   |                      |   |            |    |
|----------------|---|----------------------|---|------------|----|
| Colorado       | 2 | District of Columbia | 5 | Indiana    | 2  |
| Hawaii         | 2 | New Jersey           | 1 | Texas      | 12 |
| Arizona        | 2 | Pennsylvania         | 2 | Oklahoma   | 1  |
| Montana        | 1 | Maryland             | 6 | Virginia   | 1  |
| California     | 6 | Illinois             | 2 | Washington | 1  |
| South Carolina | 1 | Florida              | 1 | Georgia    | 1  |
| New York       | 1 |                      |   |            |    |

N=50

68T

Number of Individuals with:

|     |   |
|-----|---|
| PhD | 6 |
| MA  | 0 |

Areas of Specialization:

|                         |   |
|-------------------------|---|
| Physiological           | 2 |
| Learning/Statistics     | 1 |
| Development-Comparative | 1 |
| Social                  | 1 |
| Clinical                | 1 |

N=6

School:

|                          |   |                         |   |
|--------------------------|---|-------------------------|---|
| University of Cincinnati | 1 | Harvard                 | 1 |
| University of Oklahoma   | 1 | Louisiana State         | 1 |
| University of Iowa       | 1 | University of Wisconsin | 1 |

N=6

Number of Individuals with Fellowship N=1

Other Postdoctoral Training  
Area of Specialization:

Clinical Retraining Program N=1

Number of States Each Individual Licensed in:

|          |     |
|----------|-----|
| 0 States | 6   |
| 1 State  | 0   |
| 2 States | 0   |
|          | N=6 |

INTERNS (CPIP)

Number of Individuals with:  
PhD (ABD) = 5 degrees anticipated in 1981

Areas of Specialization:

|             |     |
|-------------|-----|
| Clinical    | 4   |
| Educational | 1   |
|             | N=5 |

Schools:

|                                    |   |                       |     |
|------------------------------------|---|-----------------------|-----|
| University of South Dakota         | 2 | Vanderbilt University | 1   |
| University of Southern Mississippi | 1 | USIU                  | 1   |
|                                    |   |                       | N=5 |

Internships APA - approved: N=2

|        |     |
|--------|-----|
| WRAMC  | 2   |
| DDEAMC | 3   |
|        | N=5 |

Number of States Each Individual Licensed in:

|          |     |
|----------|-----|
| 0 States | 5   |
| 1 State  | 0   |
| 2 States | 0   |
|          | N=5 |

|      | National Register |    | ABPP Eligible |    | ABPD Certified |    | Adv. Course Grad. (res) |    |
|------|-------------------|----|---------------|----|----------------|----|-------------------------|----|
|      | Yes               | No | Yes           | No | Yes            | No | Yes                     | No |
| 68S: | 18                | 34 | 22            | 30 | 2              | 50 | 24                      | 28 |
| 68T: | 0                 | 6  | 0             | 5  | 0              | 5  | 2                       | 3  |

|      | Adv. Course Grad. (non-res) |    | C & GSC/AFSC Grad. (res) |    | C & GSC/AFSC Grad. (non-res) |    |
|------|-----------------------------|----|--------------------------|----|------------------------------|----|
|      | Yes                         | No | Yes                      | No | Yes                          | No |
| 68S: | 5                           | 47 | 3                        | 49 | 4                            | 48 |
| 68T: | 0                           | 5  | 0                        | 5  | 0                            | 5  |

|      | C & GSC (in progress) |    | Army War Coll. Grad. (res) |    | Army War Coll. Grad. (non-res) |    | Army War Coll. (in progress) |    |
|------|-----------------------|----|----------------------------|----|--------------------------------|----|------------------------------|----|
|      | Yes                   | No | Yes                        | No | Yes                            | No | Yes                          | No |
| 68S: | 11                    | 41 | 1                          | 51 | 0                              | 52 | 0                            | 52 |
| 68T: | 2                     | 3  | 0                          | 5  | 0                              | 5  | 0                            | 5  |
| N:   | 13                    | 44 | 1                          | 56 | 0                              | 57 | 0                            | 57 |

#### Membership:

Number of Individuals in:

|             | 68S   | 68T  | Interns             |
|-------------|-------|------|---------------------|
| APA         | 39    | 6    | 2 (Student Members) |
| AAP         | 21    | 1    | 0                   |
| Div. 19 APA | 32    | 3    | 0                   |
| Div. 12 APA | 11    | 0    | 0                   |
| Div. 38 APA | 2     | 0    | 0                   |
| Div. 30 APA | 1     | 0    | 0                   |
| Div. 41 APA | 1     | 0    | 0                   |
| Div. 18 APA | 1     | 0    | 0                   |
| Div. 27 APA | 2     | 0    | 0                   |
| Div. 15 APA | 1     | 0    | 0                   |
| Div. 29 APA | 2     | 0    | 0                   |
| Div. 40 APA | 1     | 0    | 0                   |
| Div. 14 APA | 1     | 0    | 0                   |
| Div. 28 APA | 0     | 1    | 0                   |
| Div. 6 APA  | 0     | 1    | 0                   |
|             | N=115 | N=12 | N=2                 |

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

FEDERAL LEGISLATION AFFECTING PSYCHOLOGY:  
TRENDS FOR THE EIGHTIES

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INTRODUCTION

I am honored to be addressing you today. I am delighted that you have invited a representative of a political organization to your symposium, and that you have defined yourselves for this purpose not first as members of the armed services, but first as psychologists. For that is how I intend to address you today.

Typically I begin speaking to collections of psychologists by offering them their consumer rights and warnings. I am from the Association for the Advancement of Psychology--a registered C-6 lobbying organization--and for that I make no apologies. Our role is political and public interest advocacy, and in that role we are the only representative you have at the federal level.

Psychologists are unlike other professionals in some important ways, and these differences may be a bit exaggerated for military psychologists in particular. In contrast to the American Medical Association, the American Dental Association, the American Nurses Association and so forth through the rolls of professional organizations, the American Psychological Association does not do its own lobbying. AAP is a wholly separate association, and this separateness may be reflective of psychology's awkwardness in assuming public and political visibility. APA has some 56,000 members who pay \$70 plus each year in dues. AAP has 5600 members, who pay \$40 each.

I believe that psychologists are frequently uncomfortable with political visibility because they orient oddly to politics--or policy-making--and I consider these terms to be interchangeable. It's been my experience that many psychologists think politics is a lesser job for lesser people, and that politicians are an embarrassing necessity in our complex society. Psychologists are even more put off by the idea the special interest groups organize to lobby policy-makers. Once a psychologist tried to ask me a question about my job and he literally couldn't bring himself to use the word "lobbyist."



You in the military are in some ways farther removed from the political arena and organized psychology's involvement in it. You probably associate with local and state psychology organizations less often than your civilian counterparts, and you probably take less interest in state and local elections merely as a result of your job-related transiency. In fact, psychologists on active duty in the armed forces are in a very awkward position to advocate for themselves because your jobs don't start at 8:00 and finish at 4:00. Your service controls a greater proportion of your lives than does the typical civilian's employer. And we have seen evidence that self-promotion, or promotion on behalf of the profession of psychology in the military sometimes meets with punitive reactions.

Nevertheless, the importance of the status and utilization of psychologists in military health care extends beyond uniformed psychologists themselves. National Health Insurance (NHI) is not as imminent as it appeared a short while ago, but I still see it as inevitable. Of all the industrialized nations in the world, only the U.S. and South Africa do not have some form of national health care. The major impetus for NHI, and the current major ills of both civilian and military health care systems, are their skyrocketing costs and stagnating quality. This year alone we will spend somewhere between \$225 and \$250 billion on health care. Yet we do not have the worker productivity, the life spans nor the basic physical well-being of citizens in countries where much less is spent. I believe we are bordering on a revolution in health care delivery in this country and the economics of health care is the problem demanding change. At the practical level, whatever solutions are utilized in large federal programs like the Department of Defense, the Veterans' Administration and Medicare/Medicaid are likely to serve as templates for whatever national health program we do finally enact. Military psychologists need advocacy, and we advocates need military psychologists.

The irony of psychology's tendency toward apoliticality, and military psychologists' relative inability to control their own professional standards and practice, is that whether we like or not, whether we care or not, and whether or not we become involved, policy is being made for us all the time. These policies will literally dictate whether or not psychologists get jobs, training support and research grants, and whether or not health care consumers will have access to the services of psychologists, or a means to pay for them.

Snide jokes aside, politicians are not ignorant. In fact, they're brilliant at something or they wouldn't be where they are. What is ignorant is clinging to the belief that if we pay no attention to what our politicians and our regulatory bureaucrats do, everything will be all right. We may have a strange view of politicians, but from the brief experience I have had in working with our elected officials I must say that many of them have a strange view of us. And their perception is undoubtedly more reflective of their constituents' than is our own.

In addition to its illlusioness, our business carries a tremendous stigma. Mental patients are among the least powerful and most disenfranchised of all subpopulations. Because many of them don't even vote, most politicians are not inclined to court them. And because one becomes a mental patient by seeing a mental health professional, that very act carries risk and liabilities. If you don't think this is true, ask Senator Eagleton.

The quality and efficacy of psychological services are moot issues within a political vacuum, and I will not spend much time addressing them directly today. This is not because I believe such issues to be unimportant, or unworthy of a great deal of professional and public debate. Rather, I will not address them because I believe they are founded on certain basic assumptions which we all share because we are all psychologists, and psychologists have persuaded themselves about such matters. The irony, and the point of my remarks today, is that our failure to persuade most others poses a dangerous threat to our future.

I hope the title of my address--"Federal Legislation Affecting Psychology: Trends for the Eighties"--did not lead you to expect much specificity, because if I were to give you many details, I would be leading you astray. The 96th Congress will return on November 12th to its first lame duck session in more than 20 years. I can't find anyone in Washington who's been around long enough to have witnessed the last lame duck in person; if I could, it might not help anyway. To demonstrate how spurious policy-making can be, I will relay the rumor we have heard around Capitol Hill that, depending on the outcome of the November 4th election, this Congress may dismiss without completing the tremendous task of budget reconciliation. AAP staff and psychologists all over the country have invested from two to four years of work in several legislative proposals whose disposition may be left for a new Congress and a new administration. Though it is only a rumor, what we have heard is that this Congress may only settle expiring money issues, and then pass a continuing resolution until the beginning of next year, thereby leaving a new Republican President with a giant fiscal headache over which to preside.

→ What I can do today is to mention very briefly just a few of the more than 20,000 bills which have been introduced so far this session, and which illustrate the impact of policy-making on the science and profession of psychology.

#### PENDING LEGISLATION

1) The most obvious of these illustrations are the numerous bills introduced every year to authorize and appropriate billions of dollars for research, education, and training. Regardless of your stance on the issue of states' rights, it has become apparent that support for mental

health cannot be left to state and local governments. Perhaps I should say that if it is, there will be little support in many places. Although the federal government intended only to provide construction, seed and start-up monies for community mental health centers, for example, the states have simply refused to assume their continuing funding since 1964. This month's Monitor details the recently enacted Mental Health Systems Act that comprises yet another attempt to coerce state and local involvement in CHMC's.

In addition, you should know that more than 90 percent of all research funding in mental health is supported from the federal coffers. Though they have a far better forum in the federal houses than most state houses, mental health researchers have very formidable foes at the national level. We present an easy target to our research funding enemies in floor debates because they separate us from the "legitimate" sciences like biology and chemistry, about which politicians concede they know very little. Then with long litanies of grant titles from the social and behavioral sciences that sound quite bizarre to the average layperson, our political enemies proceed to ridicule some of our most basic work. I am sure you are familiar with the case of psychologist Hutchinson vs. Senator Proxmire, where the latter was charged with slander for this kind of performance on nationally televised talk shows. But there are still no prohibitions on such attacks from the floor of either the House or Senate, and you should know that they go on with painful and predictable regularity.

2) Several Truth-in-Testing bills were dangerously close to federal passage this year until the stand-off which the New York version created in that state forced a demand for further debate. Two federal versions of Truth-in-Testing would have mandated the release of every answer to every question every time standardized tests are administered. Whatever evils may attend the undue influence over college and graduate school admissions maintained by the Educational Testing Service in Princeton, New Jersey, the fish bowl mandate tells us that several well-meaning members of Congress have very little knowledge of the concepts of test validity and reliability.

Through the case known as Larry P. in California, a judicial prohibition has been put on the use of I.Q. tests to place minority children in special education classes. An almost perfectly opposite conclusion was recently reached by an Illinois district court judge in the case of Pase vs. Hannon. The judge in this case grew weary of arguments from expert witnesses representing both sides, so he decided to examine the contested instruments himself and to rely on his own judgment. His detailed review of the WISC, the WISC-R and the Stanford-Binet yielded only nine items determined to be culturally biased against black children. But his 117 pages of item-by-item analyses have now placed the questions and answers to all three tests in a public record in the public domain.

4) A host of major health and social welfare programs are constantly being introduced, sunsetted, renewed, revised, and reformed. These include the Children's Health Assessment Program, VA Health Care Amendments, State and Federal Health Planning laws, the Criminal Code Reform, the new Department of Education, and numerous versions of National Health Insurance. One item in this category with which I presume you are all too acquainted is the recently enacted Uniformed Services Health Professions Special Pay Act of 1980. The net effect of this law is that you remain "paraprofessional" health-care providers as far as the Department of Defense is concerned. I will return to this legislation later. I would first like to discuss Medicare because it too offers several omens for our professional survival.

The fiscal mechanism to support medical care for the elderly--the Social Security Trust Fund--was established by Congress in 1930. It took the next 35 years to cajole organized medicine in this country into acceptance of any federal involvement in their business, even the limited insurance coverage offered in Titles XVIII and XIX (Medicare and Medicaid). The main reason these programs passed in 1965 was that their proponents promised the federal government would not interfere with the health care industry. The implementation of this promise has helped to create and maintain a physician monopoly in health service delivery. And I believe that monopoly has acted, quite predictably, to preserve its own interests in some cases regardless of the interests of health care consumers.

Medicare/Medicaid legislation institutionalized physician control over health facilities accreditation through the Joint Commission on the Accreditation of Hospitals. It institutionalized physician control over health care reimbursements by making physicians the entry point and decision-makers for nearly all reimbursable services. Physicians receive only 20 percent of expenditures for health care in direct fee reimbursements. But because of their clinical and administrative monopolies, they actually control more than 70 percent of all health care costs.

Most physicians are skeptical about mental health services. Regardless of the AMA's arguments to the contrary, the majority of medical doctors are not trained in nor comfortable with the diagnosis of mental disorders and the delivery of mental health services. This discomfort is very evident in the legislative history of Medicare. It was because physicians argued that such services were "less controllable" and "more susceptible to patient choice" than to physician prescription that our nation's elderly have such limited access to quality mental health care. It may also be because physicians feared bona fide competition from nonphysician mental health professionals. Unlike physical medical services, which have an 80/20 co-payment arrangement and no upper limits except those imposed by treating physicians, mental health services reimbursed by Medicare carry a 50/50 co-payment and an annual limit of \$250.

Far from engaging in the gross abuse predicted by organized medicine, our nation's elderly, who comprise 11 percent of our total population, use only 4 percent of the services delivered in CHMC's, and 2 percent of the services of psychiatrists in private practice. At the same time, they comprise 25 percent of all reported suicides, use 37 percent of all prescription drugs, and occupy 30 percent of all public mental-hospital beds. Persons over age 65 suffer more than any other sector from the stigma related to mental and emotional problems and mental health services and Medicare have helped to maintain this stigma. Today Medicare stands as testimony to the evils of constructing social welfare programs for the interests of providers rather than consumers.

5) The final current legislative issue I want to mention surrounds the area of protected confidentiality, and has been embodied in bills pending in both houses under the rubric Federal Privacy Records Act of 1980. This legislation calls itself a patients' rights bill, and it does give lip service to the individual's right to privacy and confidentiality. But both bills actually define a host of exceptions to such rights which would allow the CIA, FBI, Secret Service, and every state and local law enforcement agency in the country access to a patient's records with neither consent nor even knowledge, as long as the patient "is a source or a potential source of foreign intelligence information." If you don't think this invasion is important, imagine having to advise your patients of who has access to their records at the outset of a course of treatment--which is exactly what the bill would obligate you to do.

I also caution against your thinking that abuses from which we should be protected aren't really going on. A local law enforcer in California seeking information on a robbery suspect recently took a general search warrant into a drug abuse clinic where he demanded to peruse the files. When the psychologist in charge refused, he was locked in his office and detained there for two hours while the gendarme removed dozens of records.

In a Virginia state court not long ago a wife who was suing her husband for divorce subpoenaed their marriage counselor to testify on her behalf. The therapist, who was a psychiatrist, pleaded the right to privacy and the protection of his professional ethics. But the judge examined the state privacy law and interpreted it to protect only a physician and a single patient. That is, if a third party is introduced to the treatment situation, all protections are off. The judge ordered the therapist to tell all, including the husband's most personal revelations concerning his sexual fantasies.

I'm sure it would be news to most practicing psychotherapists that there are no legal protections of privacy in group, family, and marital therapy.

## THE SPECIAL CASE OF MILITARY PSYCHOLOGISTS

I have spent this time on issues that extend beyond military psychology because unity is the foundation of our advocacy. We need your voices on behalf of all practitioners, researchers and academicians in psychology, and on behalf of all their patients and students. But we must devote attention as well to the special problems experienced by psychologists in uniform, to what AAP can do for you, and to what you must do for yourselves.

I hope you are aware of our continuing efforts; and of the special efforts of Senator Inouye on your behalf. I will only outline briefly here the scenario surrounding the Special Pay issue because I think it exemplifies problems that run much deeper.

On May 15, 1978, Dan Inouye wrote to Vernon McKenzie, then Acting Assistant Secretary for Health Affairs in DoD, to communicate his concerns "about ability of qualified health service providers" in the Army, Navy, and Air Force. I quote from that letter:

One issue that does concern me, and which may constitute an oversight in the administration of medical services for the military, is what appears to be the gross underutilization of qualified and competent psychologists as primary mental health service providers.

Senator Inouye's letter noted the irony in psychology's "long and distinguished history...in the military services," and the fact that "much of the early growth of clinical psychology in the United States is traceable to the success of military psychologists in meeting increased demands for mental health services during World War II." He reminded McKenzie of psychologists' status in CHAMPUS and other civilian health programs, and noted that:

...apparently psychologists within the military are not being afforded these same opportunities to provide services to patients in the role of independent health care providers--a role which is preserved for military physicians...

It is also my understanding that a large proportion of all physicians the military has obtained in the last three years are foreign-trained. Language and culture differences between providers and recipients in many mental health specialties must surely have a greater effect on the quality of care than would having a medical degree instead of a Ph.D. in Psychology.

It seems logical that taking advantage of the qualified psychology personnel within your ranks--who are specifically trained in tests and assessments, personality, family and interpersonal dynamics, abnormal behavior and psychopathology, psychotherapy, etc.--could greatly alleviate the problems related to the critical shortage of physicians.

McKenzie's first response was of a very polite thank-you-for-your-interest variety. It was followed by another missive from Inouye suggesting that the Senator was indeed serious about the matter. On August 2, 1978, McKenzie issued a memorandum to the Assistant Secretaries of all three services in which he "tentatively concluded that there are several steps which might be taken which would improve the utilization" of psychologists in the military. These included the possibility of departmental autonomy in hospitals of sufficient size, allowing senior psychologists to head mental health departments, and improving promotional opportunities for psychologists.

Although the initial drafts may have been composed by psychologists, I fear that the final responses to these suggestions that were forwarded to Inouye were not. From the Department of the Army, Office of the Assistant Secretary, Inouye was advised that departmental autonomy for psychology is "incompatible with current trends toward an interdisciplinary approach to mental health (and)...would cause professional fragmentation of the mental health team with resulting duplication, gaps and possible reduction in the quality of care and services provided."

In addition, past experience has demonstrated that the psychiatrists' broad spectrum of medical and psychiatric training uniquely qualifies them to lead the mental health team and make the immediate clinical decisions required in a combat situation. In preparing AMEDD mental health professionals for their combat mission and possible rapid deployment, it is essential that the team concept and the roles and relationships of team members be firmly established in the peacetime environment. Providing autonomy to an important member of this team would conflict with AMEDD mobilization preparation efforts...

The disciplines of psychiatry and psychology have traditionally enjoyed a close professional relationship within the Army Medical Department, a relationship the Army intends to foster...

In June of this year, responding to repeated inquiries from Senator Inouye, Dr. Moxley further advised that:

The replies from the Services to our memorandum disagreed...with the extent of the (morale) problem, or even that one existed, and, as such, did not endorse any action to address the issue.

Since that time, we have taken no further action. The problems experienced by psychologists are typical of those of existing and emerging mid-level health practitioners in both civilian and military health care settings and have to do with the appropriate scope of practice and authority of physician and nonphysician health providers. This issue is being contested in many forums...We do not believe the military's problem in this regard can be solved in isolation from civilian medicine. We remain sensitive to the aspirations of the psychologists, and we will continue to strive toward an unequitable (sic) solution. We expect the solution to be slow and evolutionary in nature.

On the pay issue, the current and projected supply of psychologists within the Department of Defense does not indicate a need for additional compensation...until such time as shortages become critical, and it is determined that a disparity of compensation is the major factor in creating these critical shortages, the Department of Defense will seek other remedies to solve our staffing problems for psychologists and other health professionals.

Research on modern warfare conditions has shown that the largest proportion of casualties during armed conflict--approximately 30 percent--will be mental and emotional. It has also been shown that with immediate and appropriate treatment, a high percentage of these casualties can be returned to active duty with their units. As shown by the continuing cost of the Vietnam conflict, and the fact that 40 percent of all VA beds are now filled with psychiatric patients, these casualties, when untreated, leave a legacy of delayed and chronic disorders that persist long after return to civilian life.

There are approximately 11,000 physicians, 10,000 nurses and 5,000 dentists on active duty in the military. At my last count, there were 263 active duty clinical psychologists, and projected continuing shortages suggest that nearly 25 percent of the 312 authorized billets for clinical psychologists in the combined services will remain unfilled this year. I do not understand how the DoD can continue this posture. But they have. Yet another response from Dr. Moxley to Inouye's inquiries about the Health Professions Scholarships Program--the single best and most efficient technique for the recruitment of psychologists--was answered in September of this year as follows:



The AFHPSP was authorized in 1972 for the purpose of obtaining adequate numbers of commissioned officers on active duty qualified in the various health professions. Since the beginning of the program scholarships have been limited to those disciplines in which staffing problems could not be solved through other means such as improved recruiting.

Since our most difficult staffing problem has and continues to be that of obtaining enough physicians, we have decided as of 1 October 1980 to limit the availability of scholarships to medical or osteopathic students.

Much of the dissension between you and your close professional colleagues in psychiatry is inherited from the civilian sector, I am sure. One way I can characterize our recent victory in the Fourth Circuit Court of Appeals in Virginia, for example, is that we now have a bear by the tail. Although psychiatry is one of the least popular and least powerful of all medical specialties, psychiatrists have been curiously willing to be used as pawns in the AMA's power play to stop the encroachment of nonphysicians. But the flattery that you pose a threat is little consolation for the restrictive conditions under which many of you work, and it is little compensation for the unequitable pay and career advancement available to you. It will also be little inducement for you to reenlist, and we have reason to believe that nearly 90 percent of you will leave the service at your first opportunity.

Each of your problems folds back and exacerbates the others. Poor pay and lack of professional autonomy lead to poor utilization of your services and low retention, which in turn leads to so few psychologists in higher ranks that your peer review and the continuing conditions of your work are determined by officers outside of your own profession--frequently those who would be most threatened by your advancement.

Because so many members of Congress do not know who you are nor what you can do, their inattention may be seen as born of ignorance. But it seems that you have more than ignorance as an enemy within the upper echelons of your own Department of Defense. Defense legislation is usually created in an atmosphere of congeniality. Hearings are often prestaged and orchestrated to expose very little conflict. As long as the Defense Department tells Congress that you don't need help, you probably will not get it.

#### STEPS FOR THE FUTURE

I do have advice to offer (I usually do), but I warn you that it will include becoming more active and vocal on your own behalf.

1) If you are a professional, you are by definition committed to improving our society. You might as well admit that politics--or policy-making--is therefore a part of the game you must play.

2) Don't presume anything. Don't presume that your elected representatives know who you are, what you do, nor what you want. Get to know your policy-makers and make sure they know you. There are some very predictable characteristics of almost all politicians. They have very little time, so they must rely on people they trust for information. In fact, a good lobbyist is really nothing more than a trustworthy informant. Information is the key to power; power is maintained by votes; votes come from constituents; and politicians are remarkably responsive to their constituents.

3) Organize yourselves, stick together, and identify yourselves as psychologists. Talk to each other, communicate and share information among yourselves. I hope you have the opportunity to speak with representatives of the Air Force Society of Clinical Psychologists, because they can address these issues much better than I. Their organization is an excellent model for the implementation of this advice. Always count the number of psychologists out on the limb with you before you saw it off behind you. Together we are much stronger than are all of us individually.

4) Join AAP, let us know what you want, and help us to accomplish it together.

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

## THE PROCESS OF REGIONAL CONSULTANTSHIP FOR ARMY PSYCHOLOGISTS

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Psychology Consultants in Army Health Service Regions are likely to receive requests for advice and assistance from psychologists assigned to a variety of Medical Department localities.

The first concern of any consultant should be: "Do I possess the proper motivation and resources required for this request?" No amount of sensitivity and acumen will be sufficient if the interest which incites the consultant to action and to use his resources are missing.

The second concern should be the consultant's recognition of his own needs and desires. Manifestations of the consultant's shortcomings to the point that he is unable to respond properly to the consultee is sure to become a roadblock to the consultation process.

For a continuing relationship to be successful, it is important that the consultant understands the phases of experiential growth that participants face. (These phases have been found to have similar characteristics to that of a group in formation.)

Depending on the life span and the purposes for existence of the relationship, a consultant/consultee may pass through one, several, or all of the following stages:

- |                    |                     |
|--------------------|---------------------|
| (1) Mutual testing | (5) Interdependence |
| (2) Permissiveness | (6) Comfortableness |
| (3) Explanation    | (7) Companionship   |
| (4) Respect        |                     |

The gist of my comments incorporates these seven stages in an attempt to explain the attitudes and reactions of a hypothetical consultee, the fellow Psychologist.

The label "vacillating consultee" has been selected for the predicament commonly encountered by visiting regional consultants. This is the professional colleague who requests the assistance of a

consultant (or who seemingly welcomes the consultant into his "hallowed ground" when the consultant invites himself).. Consultants often pre-suppose in this circumstance that some change is desired when in actuality the consultee inwardly alternates between desire for, and dislike for change.

Frequently, on revelation of truth, such an individual becomes satisfied with his present programs and his existing responsibilities. Pressure from individuals (either at the local setting or from the outside - i.e., Medical Department mandate) probably produced the "request" for consultation. Since the fear of expanding programs poses a continued threat to him, the consultee throws repeated impediments into the consultative process. These blocks become more and more apparent when suggestions or alternatives for new programs are proffered.

A suggested approach for Regional Psychology Consultants in providing assistance to the vacillating consultee would include the following steps:

- (1) Establish the mutual understanding that problems or issues at relevance are the property of the local person (consultee) and that solutions and actions rest with him.
- (2) Distinguish between real and deceptive expectations.
- (3) Attempt to correct unrealistic perceptions and fears; clarify typically unvoiced assumptions.
- (4) Determine which values and behaviors are at variance with his own best interest.
- (5) Encourage increased adoption of adaptive/appropriate values and behaviors.
- (6) Emphasize and encourage the study and practice of skills and strategies which will modify or solve the problems presented.
- (7) Refrain from becoming identified with the consultee's environmental forces or his fears.
- (8) Manage to terminate successfully the "active phase" of the consultative process.
- (9) Establish mutual re-involvement plans realizing that many aspects of tasks may change, requiring re-examination, reclarification, and renegotiation.

Permeating the entire process is the value of relevance and honesty of feedback. It consists of relating each other's true feelings and ideas on the subjects and objects of the consultation. False perception

of feedback regarding suggestions may lead the consultant to think that the two had reached a consensus. At some later date, however, the consultant may find himself blamed for the failure of a program or for bad public relations that developed. On the other hand, a suggestion may mature and even reap praise and benefits, but the consultee, unable personnelwise or timewise to continue the effort, may blame the consultant and pressure him for assistance that time, funds, and dislocation will not permit.

To correct the consultee's unrealistic perceptions and to reduce the intensity of his apprehension requires the recognition of the values and behaviors that have been at variance with his best interests. If during our consultative visits we find colleagues fearful of retaliation from superiors and peers because of desiring change, fearful of an enlarged responsibility, and fearful of the lack of predictability and competence in new programs - all these doubts must be recognized and discussed. Occasionally the consultant's needs, desires and areas of incompetency are revealed. A mutual understanding and respect for each other's weaknesses and strengths then becomes the foundation for successful consultation.

Frequently it is necessary that the consultant as well as the consultee adopt more appropriate values and behaviors. The supportive climate that permits mutual testing, exploration, and discussion of the needs, desires, competencies, and weaknesses of each other is the fodder for healthy interdependent growth. If the consultative process becomes predominantly one-sided, the dread of loss of prestige and self-esteem undoubtedly will create the problems of hostility, premature termination of the consultative effort, or a maladaptive state of dependence.

It is important that the consultant refrain from becoming identified with the consultee's environment; for example, appearing as if to be solely a visited Commander's advocate. Exceptions to this statement may be condoned provided the expressed purpose is to assist our fellow psychologist, through modeling, to practice useful skills and strategies within the factors matrix of the visited setting. A frequent mistake made by beginning consultants is they unwittingly enter a "conspiracy" by politicizing or crusading for change when change is neither invited, sanctioned, or accepted as a consultant task.

If the consultant desires to play the role of the "devil's advocate," in the formulation of plans for instance, it is wise to be very certain that the consultee understands the significance of this technique and does not misinterpret the "challenging" behavior of the consultant as bias, disinterest, or pessimism. In most instances, however, it is better policy to leave the consultee the task of dealing with his environment. Should change then occur, it can be justified in terms of the consultee's own experiences and the responsibility for change cannot be shifted to the consultant.

A final phase must now be considered - the termination of the in situ consultative process. For an ongoing relationship, it is essential that the consultee decide that the testing and exploratory phases were a mutual participation that was condoned (or tolerated) by both parties to the process for the purpose of initial "sizing up" and "diagnosis" and problem solving. He must decide also that there was no loss of self-esteem or prestige by either party. Instead both should have developed due respect for each other and have established and interdependence. Members of this "one-to-one" relationship should feel comfortable in each other's presence, even a feeling of companionship to be later fostered via phone conversations and correspondence.

It appears of high importance that the consultant establish the understanding initially that issues and problems are the property of the visited psychologist and that solutions rest with him/her. The assistance or suggestions of the consultant must be recognized by the consultee for what they are intended. They are to help him/her work on developing increasingly successful and appropriate avenues of approach to matters as they are presented.

In emphasizing and encouraging the study and practice of certain skills and strategies by the consultee, the Regional Consultant must possess the motivation and have access to, or knowledge of resources that will be of assistance in any training situation that is suggested. The occasions and resources for this step usually are available to the consultant who can recognize and take advantage of opportunities.

For the sake of good sense, good manners, and good will, Regional Consultants must be serious about their intent to serve their professional colleagues. If they mask self-directed ambition behind a facade of service, the consequences are likely to be disastrous. The process of consultation is inviting perhaps because its techniques are varied, influence is tremendous, and rewards are gratifying. Regional Consultants must never assume that they have the ability to be consultants to their colleagues, they must be content to learn how as the circumstances arise.

## Task Force Reports

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

PLANS AND POLICIES TASK FORCE

PURPOSE

The Plans and Policies Task Force met several times during the period 27-31 October 1980 to identify and discuss professional issues of importance to Army psychologists, and to develop specific plans to correct problems identified.

MEMBERSHIP

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|-------------------------|--------------------------------------------------|
| LTC Ernest Lenz         | USACDEC, Fort Ord, CA 93941                      |
| MAJ James Chesnutt      | US Army Hospital, Fort Carson, CO 80913          |
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| MAJ James W. Thompson   | US Army Hospital, Fort Ord, CA 93941             |
| MAJ Kenneth Zych        | 5th General Hospital, APO NY 09154               |
| CPT E. Thatcher Beaty   | Darnall Army Hospital, Fort Hood, TX 76544       |
| CPT William R. Gentry   | William Beaumont Army MC, El Paso, TX 79920      |
| CPT Lawrence E. Klusman | Walter Reed AMC, Washington, D.C. 20012          |
| CPT Bill Long           | Walter Reed AMC, Washington, D.C. 20012          |
| CPT Richard Neary       | US Army Hospital, Fort Jackson, SC 29207         |
| CPT Robert P. O'Brien   | William Beaumont AMC, El Paso, TX 79920          |
| CPT Kenneth Rollins     | 25th Infantry Division, Schofield Brks, HI 96225 |
| CPT Harold Rosenheim    | Keller Army Hospital, West Point, NY 10996       |

SUMMARY

1. Psychologists are highly skilled professional who are thoroughly trained in all aspects of normal and abnormal behavior. Their strengths have largely gone unrecognized because of a failure of the AMEDD to successfully attract and retain more members of this professional group. Because of this failure many potential programs unique to psychologists' training and expertise are generally not available to patients and soldiers. (These include but are not limited to: psychodiagnostic evaluation of soldiers in classified MOS's and/or handling nuclear weapons, prevention of stress disorders, prediction of surgical outcome, weight control, and smoking control.) It is highly recommended that the Surgeon General pay special attention to the issues of pay, promotion, and other policies relevant to psychologists to enhance the opportunities of the AMEDD to attract and retain these highly valuable clinical professionals.



2. The following recommendations are made by the Plans and Policies Committee:

a. Subject: AR 40-216

(1) Problem: It is unacceptable in its present draft form dated 15 August 1980 since it fails to properly address the role of psychologists.

(2) Recommendations:

(a) The current draft should be revised with careful attention to input from the Psychology Consultant.

(b) The Senior Mental Health Officer assigned should head the Mental Hygiene Consultation Service and the Community Health Activity in accordance with HSC Reg 10-1.

(c) The current draft of the Regulation is incomplete because it fails to properly include psychologists, social workers, and psychiatric nurses who represent approximately 75% of all AMEDD mental health professionals. If it is to be a basic regulation for Army Mental Health it should be revised to deal appropriately with all mental health professionals and not just psychiatrists.

b. Subject: AMEDD Officer Basic Course for 68S Psychologists

(1) Problem: Psychology interns are being assigned for internship training without first attending the AMEDD Officer Basic Course.

(2) Recommendation: Whenever possible psychology interns should attend the AMEDD Basic Officer Course prior to their internship.

c. Subject: Psychodiagnostic Instruments

(1) Problem: Many unqualified AMEDD personnel are administering psychodiagnostic instruments to patients.

(2) Recommendations:

(a) Psychodiagnostic instruments should be used only by AMEDD personnel who meet or are supervised by AMEDD personnel who meet the standards for the use of such instruments as described in the APA Publication: Standards for Educational and Psychological Tests, (1974).

(b) Only those credentialed to administer psychological instruments by the local Hospital Credentialing Committee should do so in the AMEDD.

(c) All those requesting credentials to administer and/or interpret psychological instruments should have their academic credentials reviewed by the local most senior 68S psychologists who should be members of and vote at the Hospital Credentials Committee.

(d) The definition of determination of what constitutes a psychological test should be made by the local most senior psychologist in accordance with APA guidelines and the Psychology Consultant.

d. Subject: AMEDD Psychology Symposium

(1) Problem: A bi-annual Psychology Symposium does not provide sufficient interchange of ideas due to the long time period between meetings.

(2) Recommendation: The AMEDD Psychology Symposium should be an annual meeting (vs bi-annual) to promote more rapid and effective communication and information among AMEDD psychologists. This is especially necessary for advancing knowledge in the areas of Combat Psychology, Military Forensic Psychology, and other problems unique to the military.

e. Subject: Teaching Chiefs Conference

(1) Problem: Psychology AMEDD Teaching Chiefs have insufficient opportunity to discuss problems unique to the military and to coordinate their teaching programs.

(2) Recommendation: Teaching Chiefs and Training Directors be centrally funded to attend the annual AMEDD Teaching Chiefs Conference.

f. Subject: Military Psychology Conferences

(1) Problem: AMEDD psychologists are unable to coordinate their plans and policies with psychologists from the other Services.

(2) Recommendation: Two psychologists be centrally funded to attend each annual US Air Force and US Navy Psychology Symposium to promote interservice understanding of Combat Psychology and AMEDD/AFMED/NAVMED plans and policies.

g. Subject: Future AMEDD Symposia and AMEDD Current Trends and Behavioral Science Conferences

(1) Problem: Travel expenses are greatest during the days Friday, Saturday, and Sunday. Conferences scheduled from Monday through Friday produce excessive travel funding. Conference costs could be minimized by scheduling travel to occur between Monday and Thursday.

(2) Recommendation: AMEDD Symposia and Conferences be scheduled so that travel occurs during the days Monday, Tuesday, Wednesday, and Thursday.

**h. Subject: Psychology Fellowship Training**

(1) Problem: Psychology is becoming increasingly specialized in nature and insufficient postgraduate training programs are available for AMEDD psychologists.

(2) Recommendation: Psychology Fellowship Training Programs be developed as soon as possible in the following areas: Medical Psychology, Forensic Psychology, Family Psychology, and Community Psychology, and current fellowship programs in Neuropsychology and Child Psychology be expanded.

**i. Subject: Training of 91G Personnel**

(1) Problem: 91G personnel appear to be increasingly less well trained in basic interview procedures, counseling skills, and the use of psychodiagnostic instruments.

(2) Recommendation: Recommend that the training for 91G personnel at the Behavioral Science Division, Health Services Command, Fort Sam Houston, TX be increased to provide a more complete grounding in interview procedures, counseling skills, and the use of psychodiagnostic instruments to better prepare them for MOS duty.

3. The following items were agreed upon as needing continued work during the year:

**a. Subject: Dissemination of Information**

(1) Problem: Many psychologists operating in the AMEDD lack critical information necessary for maximum effectiveness in the field.

(2) Recommendation: LTC Bob Worthington, Ph.D., will chair an effort to put together a booklet of critical information for psychologists which will be issued to the field on a one time basis.

**b. Subject: Administrative Evaluation of Active Duty Soldiers**

(1) Problem: Psychologists are not recognized in regulations pertaining to the administrative evaluation of active duty soldiers.

(2) Recommendation: CPT Harold Rosenheim, Ph.D., and CPT Richard Neary, Ph.D., will chair an effort to improve utilization of psychologists for administrative evaluation of active duty soldiers.

**c. Subject: The Division Psychologist's Kit**

(1) Problem: The current Division Psychologist's Kit is outdated and does not promote maximum utilization of psychologists in accordance with contemporary standards.

(2) Recommendation: MAJ Gregory Laskow, Ph.D., will chair an effort to revise the TO&E for the Division Psychologist's Kit.

d. Subject: Role of the Division Psychologist

(1) Problem: There is no consensus on the role of the division psychologist.

(2) Recommendation: CPT Ken Rollins, Ph.D., will chair an effort to collect papers on the role of Division Psychologist to provide a meaningful package which will be made available to 68S's newly acquired to the Army and to 68S's receiving assignments as Division Psychologists.

e. Subject: Military Law in Psychology

(1) Problem: The role of Psychology in Military Law is not clearly defined.

(2) Recommendation: LTC Ernest Lenz, Ph.D., will chair an effort to revise the current regulations dealing with Military Law in Psychology IAW current civilian practice, and American Psychological Association Standards, and to promote the maximum utilization of psychologists in this area.

f. Subject: AR 601-101

(1) Problem: The current definition of a psychologist is inadequate in terms of contemporary American Psychological Association standards.

(2) Recommendation: MAJ Timothy B. Jeffrey, Ph.D., will chair an effort to draft a revision of this regulation.

g. Subject: The Role of Psychologists and Security Clearance and/or Nuclear Surety.

(1) Problem: The role of psychologist is not clearly defined in these areas.

(2) Recommendation: MAJ Ed McCarroll, Ph.D., will chair an effort to clarify the role of psychologist in these areas.

h. Subject: Current Assignment Progression for Psychologists

(1) Problem: The Current Assignment Progression for Psychologists is not clearly defined.

(2) Recommendation: CPT Bill Long, Ph.D., will chair an effort to revise the current Assignment Progression for Psychologists

4. The members of the Plans and Policies Committee are:

LTC Ernest Lenz  
MAJ James Chesnutt  
MAJ Gary Greenfield  
MAJ Dennis Kowal  
MAJ Gregory Laskow  
MAJ Ed McCarroll  
MAJ James W. Thompson  
MAJ Kenneth Zych

CPT E. Thatcher Beaty  
CPT William R. Gentry  
CPT Lawrence E. Klusman  
CPT Bill Long  
CPT Richard Neary  
CPT Robert P. O'Brien  
CPT Kenneth Rollins  
CPT Harold Rosenheim

MAJ Timothy B. Jeffrey  
Chairman  
Plans and Policies Committee

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

RECRUITMENT AND RETENTION TASK FORCE

PURPOSE

The Recruitment and Retention (R and R) Task Force Group met on three occasions formally and sporadically on informal basis during Symposium period: (a) to address those factors perceived as influencing the recruitment and retention of AMEDD Psychologists, (b) to organize Task Force Group resources for existing and future projects, and (c) to make preliminary recommendations.

MEMBERSHIP

LTC David H. Gillooly (Chairperson)  
P.O. Box 101  
Tripler AMC, HI 96859

LTC Dumont G. Blankenship  
Psychology Service  
Brooke Army Medical Center  
Fort Sam Houston, TX 78234

MAJ Michael L. Adams  
Directorate of Combat & Doctrine  
Development  
Fort Benjamin Harrison, IN 46215

MAJ David L. Bevet  
Psychology Service, New Treatment  
Facility  
Walter Reed Army Medical Center  
Washington, D.C. 20012

CPT Terry M. Rauch  
Health Care Studies Division  
Academy of Health Sciences  
Fort Sam Houston, TX 78234

CPT Mary Z. Mays  
Office of the Commandant  
Academy of Health Sciences  
USA-ZTE  
Fort Sam Houston, TX 78234

A. David Mangelsdorff  
Health Care Studies Division  
Academy of Health Sciences  
Fort Sam Houston, TX 78234

James R. Livingood, Director  
Human Resources Ct, CDAAC  
Baumholder Military Command  
APO New York 09034

SUMMARY

1. Initial meeting accomplished dissemination of information (a) by Chairperson regarding format and schedule of planned and expected meetings during the Symposium time frame; and (b) by COL Harris about possible group activities and about the imminent need to create a brochure to assist in recruitment efforts.

2. The second meeting first solicited from members their individual reasons for enrolling into the R and R Task Force Group. This discussion both allowed an estimate of member motivation for future action tasks and a cursory categorization of task group member interest. Assuming expressed interests represented an albeit biased sample, they still were sufficiently varied in scope to broadly reflect the following gross factors as influential R and R "drawing card" issues: Personal, interpersonal, interprofessional and organizational.

The task of assisting in the development of an AMEDD Psychology programs "recruitment brochure" was addressed, acknowledging that members were by and large naive with respect to the various graphic illustrations and printing matters required to complete a final product for recruitment use. It was suggested and affirmed that the group would contact and obtain available sources of information and existing like brochures for review toward format planning and content drafting of a recruitment brochure. Samples of material already in use by AMEDD Procurement networks ("FACT SHEETS") and those used by VA and USPHS in explaining Psychology Programs were to be obtained by members and forwarded to the Chairperson. Various members commented on specific personal content and professional matters needing highlight in the resultant brochure.

Additional recruitment plan ideas were expressed that included the availability of select active duty Psychologists to function as potential assistants to AMEDD regional procurement officers and as a resource for local active recruitment efforts on campuses offering APA-approved Clinical/Counseling programs. It was recommended that effort should be made to advertise Army Psychology programs through state Psychological Associations and APA Divisional newsletters (i.e., 12-Clinical, 18-Public Service, 38-Health Psychology). It was recommended that geographically proximal doctoral candidates and civilian sector psychologists be invited to attend future Army Psychology Symposia offering continuing education credits. It was cited also that it may be worthwhile to explore the feasibility of diverting unused Health Professional Scholarship Program funds to allow the reestablishment of a Long-term Civilian Training Program for active duty officers desiring to become career Army Psychologists. Finally, it was suggested that former Army Psychologists and Reserve Unit Psychologists be contacted to induce return/change to active duty status.

3. During the third meeting, the problems of retaining Army Psychologists beyond their initial commitment was discussed. The issues involved were seen as highly complex yet needing affirmative actions. The AMEDD as well as military psychology cannot afford to continue to lose one-third of our active duty strength each year. Probable solutions to these basic retention problems have been the focus AMEDD Psychology Symposium Work Groups since the early 1960's. Recent studies accomplished at the Health Care Study Division of the Academy of Health Sciences (by Dr. Mangelsdorff) began to tease out those factors that would increase the likelihood of Psychologists to extend beyond their current obligation and remain on active duty until eligible for retirement. Since total years of active

military service completed were found to be the most significant contributor factors which lead to the inducement of active duty Psychologists to extend beyond their current obligation. Apparently, from the retrospective data, the likelihood to stay until retirement eligibility is maximized if Psychologists can be induced to remain on active duty past an 8-11 year time bracket. Factors which contribute to keeping Psychologists past their initial obligation: Sense of membership in the Army, personal accomplishment as a military Psychologist, support of co-workers, sense of being utilized professionally, and pay and promotions. These and other job satisfaction, personal and professional growth matters were discussed with the idea of formulating a general career pattern that would maximize Psychologists' sense of attained expectations and personal control over career developments. The prototype career patterns plan that emerged for "new-to-service" Clinical and Counseling Psychologist follows:

| Career Pattern Chart |                                                                                  |                 |                       |
|----------------------|----------------------------------------------------------------------------------|-----------------|-----------------------|
| Years Service        | Assignment                                                                       | Level           | Individual Preference |
| 1                    | Internship                                                                       | Apprentice      |                       |
| 2                    | Career Advancement<br>(Utilization)                                              | Journeyman      |                       |
| 3                    | CMHA, MEDCEN, other                                                              | Specialist      | Maximal               |
| 1                    | Career Course                                                                    |                 |                       |
| 3                    | Chief, Psychol Svc/Sec                                                           | Adv Spec        | Maximal               |
| 1                    | "Sabbatical" Research/<br>Training (at previous<br>or future assignment<br>site) |                 |                       |
| 4-5                  | MEDCEN, Internship<br>Training, etc.                                             | Area Consultant |                       |

The notion of programming a "sabbatical" period at the 10-year level would in effect encourage independent but health care oriented study/research by Psychologists well informed of AMEDD system needs. This opportunity was seen as incurring an additional two-year service obligation.

Attention was drawn to the sporadic literature available in previous AMEDD Behavioral Science/Psychology current trends/symposia and in professional journals (i.e., "burn out" syndrome) that addressed retention of psychologists in the Army and other health care delivery systems. Task Force members were invited to explore these past efforts for relevance to AMEDD Psychology R and R matters. It was noted that 15% of the students currently in the Health Professional Scholarship Program are women, necessitating the development perhaps of specific career programs which would meet their professional needs and system integration. The notion of developing positions of Health Service Research Psychologists at Clinical Investigation Services of MEDCEN's was discussed as a viable career role extension for the 68T professionals.



Finally, Task Force members were directed to submit by final day of Symposium a list of recommendations and "brainstorm" ideas that they felt needed further exploration and attention. Unanimous agreement was obtained to institute the R and R Task Force Group as a Standing Task Force Group available for future projects as needed.

TASK FORCE PROJECTED ACTIONS

| Action                                                                                                               | Responsible Individuals | Compliance Dates |
|----------------------------------------------------------------------------------------------------------------------|-------------------------|------------------|
| Review/Update of FACT SHEET - Clinical Psychology Internship Program.                                                | Chairperson             | 10 Dec 80        |
| Review/Update of FACT SHEET - Psychologists and Health Service Research Psychologists.                               | Chairperson             | 15 Jan 81        |
| Forward to Chairperson brochures used by USN, USAF, VA, USPHS for AMEDD Psychology Recruitment brochure development. | Members                 | 15 Jan 81        |
| Review for adding recommendations OTSG Procurement Initiative Plans.                                                 | Chairperson             | 9 Jan 81         |
| Forward to OTSG Consultant preliminary plans for AMEDD Psychology Recruitment brochure.                              | Chairperson             | 15 Feb 81        |
| Review R&R efforts cited in prior AMEDD literature for consolidation and direction of plans and position papers.     | Members<br>Chairperson  | 30 Apr 81        |

A copy of this After Action Report is to be furnished to current members and Chairpersons of Professional Affairs, Plans and Policies, and Education and Training Task Force Groups for cross-communication purposes and coordination needs.

DAVID H. GILLOOLY, Ph.D.  
LTC, MC  
Chief, Psychology Service

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

PROFESSIONAL AFFAIRS TASK FORCE

PURPOSE

The Professional Affairs Task Force Group met daily, 27-31 October 1980, to identify and discuss problems and issues of professional interest and concern to Army psychologists, with the intent of making realistic recommendations where feasible.

MEMBERSHIP

| Name                   | Address                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------|
| LTC John C. McCormick  | Psychology Service<br>DDEAMC<br>Fort Gordon, GA 30905                                   |
| MAJ Frank Rath         | 130th Medical Hospital<br>Heidelberg<br>APO NY 09102                                    |
| MAJ (P) Ernest J. Lenz | Org Eff Tng Center<br>Fort Ord, CA 93941                                                |
| MAJ Barry N. Blum      | Psychology Service<br>Fitzsimmons Army Medical Center<br>Denver, CO 80240               |
| CPT Rodney Sullivan    | USA MEDDAC<br>Fort Knox, KY 40121                                                       |
| CPT R.H. Goodwin       | 9th Infantry Division<br>CMHA<br>Box 19 - 9th Combat Medical Bn<br>Fort Lewis, WA 98433 |
| CPT Randy Finger       | CMHA<br>Fort Meade, MD 20755                                                            |
| CPT Bruce Lockwood     | Psychology Service<br>Walter Reed Army Medical Center<br>Washington, D.C. 20012         |

| Name                 | Address                                                                         |
|----------------------|---------------------------------------------------------------------------------|
| CPT Dainis Turaidis  | HSC 7th Medical Battalion<br>7th Division<br>Fort Ord, CA 93941                 |
| CPT Randall Epperson | Psychology Service<br>Walter Reed Army Medical Center<br>Washington, D.C. 20012 |
| 1LT Jack Kitaeff     | USA MEDDAC<br>Fort Belvoir, VA 22060                                            |
| 1LT Elaine Zitomer   | Psychology Service<br>Walter Reed Army Medical Center<br>Washington, D.C. 20012 |

#### SUMMARY

1. The initial meeting was used to construct an agenda of professionally related problems and issues. Task force members were then asked to group these agenda items into common areas for review (See paragraph c).
2. The revision of AR 40-216, currently being staffed at DA level was identified as the most immediate business needing review, since this regulation's revision may have significant impact on the way in which Army psychologists are expected to function as professionals within AMEDD. The line-by-line review of this draft regulation occupied the majority of the group's remaining time and energy. At the conclusion of the symposium, a detailed statement of non-concurrence to the draft as presently written was forwarded to COL Harris, Psychology Consultant to The Surgeon General, for his use in proposing changes to the current draft.

COL Harris endorsed the group's recommendations, in their entirety. He has expressed his appreciation to the group for a very worthwhile and usable piece of work. As a result of Psychology's non-concurrence, as well as the non-concurrence of other professional groups, the SGO consultants in psychology, psychiatry, and social work will be reviewing the regulation in January in an effort to resolve differences.

3. The final action of the Professional Affairs Task Force Group was to form subcommittees to review issues and problems needing study in the coming year. Four areas for review had been identified earlier in the week: professional roles of AMEDD psychologists; standards and ethics; organization and functions of AMEDD psychologists; and career patterns of AMEDD psychologists. A suggested agenda and the subcommittee composition of each of these four areas are:

| Area for Review                              | Agenda                                                                                                                                                                                                                                                                          | Subcommittee Composition                                                           |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Professional roles of the AMEDD psychologist | Group and individual identity, integration of psychologist and military officer roles; who is the client?; communalities of professional roles; sub-specialty areas, e.g., medical psychology, neuropsychology, child psychology, community psychology, family psychology, etc. | CPT Rodney Sullivan*<br>CPT Jack Kitaeff<br>LT Elaine Zitomer                      |
| Standards and Ethics                         | Credentialing, licensure, boards, and other professional recognition; entry requirements; hospital privileges; professional membership; continuing education requirements                                                                                                       | CPT Dianis Turaidis*<br>CPT Bruce Lockwood<br>CPT R.H. Goodwin                     |
| Organizations and Functions                  | AR 40-216; AR defining Army psychology; a regulation describing forensic psychology; independent psychology services                                                                                                                                                            | LTC John McCormack*<br>MAJ Ernest Lenz<br>CPT Randy Finger<br>CPT Randall Epperson |
| Career Patterns                              | Career progression; optimal career avenues; postdoctoral experiences                                                                                                                                                                                                            | MAJ Frank Rath*<br>MAJ Barry Blum                                                  |

\*Designated subcommittee chairman

4. The subcommittee chairmen intend to encourage a dialogue among their subcommittee members on the agenda items noted as well as any other agenda items that may come to mind. The goal of the discussions will be to prepare selected position papers for consideration by COL Harris. The target date for such position papers is April 1981, with assurance from COL Harris that realistic proposals will be acted upon.

5. A copy of this after action memorandum is being furnished to the Chiefs of the Plans and Policies, Recruitment and Retention, and Education and Training Task Force Groups for coordination. Those committees and subcommittees with overlapping interests are encouraged to communicate directly with each other.

JOHN C. McCORMACK, Ph.D.  
LTC, MSC  
Chief, Psychology Service

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

EDUCATION AND TRAINING TASK FORCE COMMITTEE REPORT

1. At the AMEDD Psychology Symposium conducted at Walter Reed Army Medical Center in October 1980, and Education and Training Committee was formed. The committee was co-chaired by LTC Francis J. Fishburne and MAJ James Futterer. The following individuals volunteered to be members of the committee:

|                         |                                             |
|-------------------------|---------------------------------------------|
| MAJ Frank H. Edwards    | 56th General Hospital                       |
| MAJ John D. Shoberg     | Tripler Army Medical Center                 |
| MAJ Daniel J. Venezia   | Dwight David Eisenhower Army Medical Center |
| MAJ Thomas R. Waddell   | Walter Reed Army Medical Center             |
| MAJ Anthony C. Zold     | Madigan Army Medical Center                 |
| CPT Daniel E. Hendricks | Aberdeen Proving Grounds                    |
| CPT Robert P. O'Brien   | William Beaumont Army Medical Center        |

2. Despite the long schedule of the symposium, the committee was able to meet on four separate occasions for approximately one hour each session. It was the general consensus of the group that formal time be built into the program to allow the various working committees time to conduct their business.

3. The following recommendations were made by the committee:

a. A permanent education and training committee should be established by the consultant.

(1) This committee should include the Director of Training of the internship and fellowship programs. The remaining membership should be volunteers who are interested in this area.

(2) This committee should be funded to meet on an annual basis.

(3) The primary purpose of the committee should be to advise and assist the Psychology Consultant in matters related to the education and training of AMEDD psychologists and personnel preparing to become AMEDD psychologists.

b. American Psychological Association continuing education recognition should be sought and obtained for AMEDD Psychology professional education activities.

(1) Continuing education programs for psychologists are now being supervised and approved by state and national credentialing bodies, e.g., boards of examiners.

(2) As a recognized profession, psychology has the responsibility to insure that its members maintain expertise in their field. A recognized method of accomplishing this is through continuing education programs.

c. The core skill objectives for the Clinical Psychology Internship Program (CPIP) should be reexamined and updated.

(1) Skill requirements for initial and intermediate assignments should be reviewed and compared to present skill preparation at the four CPIP training sites.

(2) Developing areas within psychology, e.g., medical psychology, behavioral medicine, biofeedback, neuropsychology, etc., should be considered for integration into existing CPIP programs.

(3) Preparation for the role of the combat psychologist should be reviewed.

d. The possibility of developing additional specialized skills for psychologists within AMEDD should be studied. For example, the Uniformed Services University of the Health Sciences has a graduate program in medical psychology. The idea of a sabbatical as an alternative to specialty training should be explored and developed.

e. Training programs should have some input into the selection of HPSP students, interns, and fellows. It is recognized that the board system for selection of personnel to fill openings in training programs is a well-established, equitable method of pursuing this end. However, the qualifications of personnel who sit on such boards should be such as to insure that appropriate personnel will be selected. Thus, it is strongly recommended that such boards, when convened, consist of personnel involved in training to which selectees are to be sent.

f. The committee recommends that the proposed community psychology fellowship be closely monitored in its development to insure that the training meets standards for post-doctoral education.

4. This report is respectfully submitted for the Education and Training Committee.

FRANCIS J. FISHBURNE, Ph.D.  
LTC, MSC  
Co-chairman, Education and Training  
Committee

JAMES W. FUTTERER, Ph.D.  
MAJ, MSC  
Co-chairman, Education and Training  
Committee

**After Action Report**

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

AFTER-ACTION REPORT

1. The biennial AMEDD Psychology Symposium held at Walter Reed Army Medical Center was conducted during the period of 27-31 October 1980. This report constitutes a summary and critique of the course.

2. Course Content: The three main objectives of the course were as follows: (a) to promote knowledge and understanding of the significant issues and problems facing the Army in the 1980's with which military psychologists must be concerned, (b) to devise innovative ways for AMEDD Psychology to meet the challenges and produce solutions to anticipated problems, (c) to provide a forum for continuing education, exchange of new ideas, and maintenance of high levels of professional competence for military psychologists.

a. As a result of discussions with the Psychology Consultant and other senior psychologists, the following areas were deemed to be important and relevant to AMEDD Psychology in the present decade and were therefore chosen for emphasis (see inclosure for the full program):

- (1) Women in the military
- (2) Psychological aspects of combat
- (3) Military criminal law and forensic psychology
- (4) Community Mental Health Activities: Management, utilization and specialized programs
- (5) Credentialing of military psychologists
- (6) Neuropsychological assessment
- (7) Behavioral medicine and the prevention of illness
- (8) Parent education for prevention of behavior problems in children
- (9) Regulatory, educational, and attitudinal changes necessary for improved delivery of mental health services and greater professional growth of Army psychologists.



b. Various methods of presentation were employed by speakers depending upon the objectives of the presentation, expertise of attendees, etc. These methods were: (a) symposia designed to instruct and explore diverse facets of a particular issue, (b) workshops in which participants improved skills, (c) presentations of scientific papers and research, (d) invited addresses by distinguished psychologists, (e) work/study groups designed to produce innovative proposals and position papers for use by the Psychology Consultant. Approximately 62 hours of presentations were scheduled during the week, thus allowing the participants some flexibility in their choice of topics.

3. Guest Speakers: A list of guest speakers is enclosed. Many speakers for the Symposium were drawn from local and nearby military research facilities such as Aberdeen Proving Grounds and Walter Reed Army Institute of Research. This effort was coordinated by MAJ Curt Graeber, MSC. The participation of these highly trained and very knowledgeable military and DOD officials greatly enhanced the quality and authority of the presentations with which they were involved. In addition, many psychologists attending the Symposium assumed an active role by presenting papers, conducting workshops, etc.

4. Attendance: Following is a breakdown of the 62 registered attendees by component and MOS.

| MOS | Active Duty Army | Reserve Army |
|-----|------------------|--------------|
| 68S | 46               | 2            |
| 68T | 9                | 0            |
| 68U | 5                | 0            |

Individualized presentations were attended by other local military and civilian personnel who did not register for the entire symposium. A list of registered attendees is inclosed.

5. Critique: Critique of the course was accomplished by a standard (TEST) questionnaire entitled "AMEDD Professional Post Graduate Short Course Critique." A supplementary form specific for this course was also designed. The inclosed critique forms contain the mean ratings for the questionnaire items.

a. An analysis of the questionnaire data and the written comments of participants indicated that the Symposium was very well received. The strong points that were mentioned included the diversity of the presentations, the flexibility of the program, and the high quality of the speakers. Many individuals (especially new psychologists) noted that they greatly valued the opportunity to interact with other Army psychologists who were dealing with problems and concerns similar to their own. The task groups were also seen as helpful and thought-provoking.

b. The critique questionnaire indicated that many participants would have preferred fewer paper sessions and more clinically-oriented workshops. Similarly, others expressed a desire for presentations on practical solutions to everyday problems (e.g., training 91G's, program development, consultation, etc.). There was isolated criticism of the facilities (e.g., the size of the meeting room). Others also stated that the schedule should have been better coordinated and the speakers' allotted time more strictly controlled.

6. Administration: Requests for papers, workshop proposals, etc., were mailed to all active duty Army psychologists approximately 4½ months prior to the course. Deadline for receipt of proposals was set for 6 weeks before the beginning of the course. In addition to this general mailing, other speakers were issued direct invitations to participate based on their expertise in a given area. All the speakers were asked to provide formal papers which will be published in the Proceedings of the Symposium.

a. Attendance at the Symposium for active duty officers was funded either centrally (OTSG) or locally. Selection for central fundings was made by the Psychology Consultant in consultation with the course project officers. The selection of individuals was influenced by the requirements of the program with the goal of maintaining an even geographic distribution of participants.

b. Quarters at the local transient billeting facility were limited to 16 spaces. These were assigned to officers who had been centrally funded. Other attendees were provided a list of local motels but were urged to register at the Sheraton Silver Spring. Daily bus transportation was provided between this motel and WRAMC. Certificates of non-availability were issued for attendees who could not obtain government quarters.

7. Recommendations: (1) Attendance at future symposia should be expanded to include Reserve psychologists and HPSP students. (2) Due to different professional interest of 68S and 68T psychologists, consideration should be given to grouping presentations of interest to all psychologists at the beginning of the week and reserving the second half of the week for clinically oriented programs. (3) The number of workshops should be increased. (4) Selection of papers for presentation should be more stringent and the number of such papers accepted should be reduced. (5) To reduce confusion, especially among psychologists new to the Army, officers should be advised about funding options and procedures for application well in advance of the Symposium.

LAWRENCE E. KLUSMAN, Ph.D.  
CPT, MSC

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

GUEST SPEAKERS

Following are the names of the guest speakers at the AMEDD Psychology Symposium, Walter Reed Army Medical Center, 27-31 October 1980.

1. MAJ Jerome Adams, Department of Behavioral Sciences and Leadership, US Military Academy.
2. MAJ Owen D. Basham, Criminal Law Division, Judge Advocate General School, Charlottesville, Virginia.
3. Dr. Andrew S. Baum, Assistant Professor, Department of Medical Psychology, USUHS.
4. LTC Gregory Belenky, Department of Neurosciences, WRAIR.
5. Dr. Theodore H. Blau, past president of the American Psychological Association and Consultant to the Army Surgeon General.
6. Dr. John W. Bullard, Assistant Dean for Graduate and Continuing Education, USUHS.
7. Dr. Bernard Corona, Chief, Individual Soldier and Battlefield Environment Directorate, US Army Human Engineering Laboratory, Aberdeen Proving Grounds, Maryland.
8. Dr. Robert J. Gatchel, Associate Professor of Medical Psychology, USUHS.
9. Mr. Donald Gray, Director, Equal Opportunity (Military), Office of the Assistant Secretary of Defense for Manpower, Reserve Affairs, and Logistics.
10. Dr. Neil E. Grunberg, Assistant Professor, Department of Medical Psychology, USUHS.
11. Dr. Judy E. Hall, Executive Secretary, New York State Board for Psychology.
12. LTC Jesse Harris, Department of Military Psychiatry, WRAIR.
13. Dr. Frederick W. Hegge, Chief, Department of Military Psychophysiology, WRAIR.
14. Dr. Gerald Hudgens, Human Engineering Laboratory, Aberdeen Proving Grounds, Maryland.

15. CPT Linda Jellen, Department of Military Psychiatry, WRAIR.
16. COL David P. Jentsch, Chief, Social Work Service, WRAMC and Social Work Consultant, OTSG.
17. Dr. David S. Krantz, Assistant Professor, Department of Medical Psychology, USUHS.
18. Dr. David H. Marlowe, Chief, Department of Military Psychiatry, WRAIR.
19. Dr. Joseph D. Matarazzo, Professor and Chairman, Department of Medical Psychology, University of Oregon Medical School and Consultant to the Army Surgeon General.
20. Dr. Anne Marie O'Keefe, Association for the Advancement of Psychology, Washington, D.C.
21. Dr. Joseph G. Poirier, Clinical Director, Young Adult Counseling Program, Montgomery County, Maryland.
22. CPT Joseph E. Ross, Criminal Law Division, Judge Advocate General School, Charlottesville, Virginia.
23. Dr. Mady Segal, Associate Professor, Department of Sociology, University of Maryland and WRAIR.
24. Dr. David Shapiro, private practice of Forensic Psychology, Washington, D.C.
25. Dr. Jerome E. Singer, Professor and Chairman, Department of Medical Psychology, USUHS.
26. LTC Frank Sodetz, Director, Division of Neuropsychiatry, WRAIR.
27. Mrs. Linda Torsani-Fatkin, Human Engineering Laboratory, Aberdeen Proving Grounds, Maryland.
28. CPT Darlenn Vernon, Department of Military Psychiatry, WRAIR.
29. Dr. Harold J. Wain, Director, Psychiatry Liaison Service, WRAMC.
30. Dr. Leo Walder, private practice of Clinical Psychology, Greenbelt, Maryland.
31. Dr. Alfred M. Wellner, Executive Officer, Council for the National Register, Health Service Providers in Psychology.
32. Dr. Sheryle J. Whitcher, Assistant Professor, Department of Medical Psychology, USUHS.
33. BG James J. Young, Chief, Medical Service Corps.

Proceedings of the AMEDD Psychology Symposium  
27-31 October 1980, Walter Reed Army Medical Center

REGISTERED ATTENDEES  
1980 AMEDD PSYCHOLOGY SYMPOSIUM

| Name                   | Rank   | Branch |
|------------------------|--------|--------|
| Adams, Michael L.      | MAJ    | MSC    |
| Beaty, Edward T.       | CPT    | MSC    |
| *Bevett, David E.      | MAJ    | MSC    |
| Blankenship, Dumont    | LTC    | MSC    |
| Blum, Barry N.         | MAJ    | MSC    |
| Chermol, Brian H.      | MAJ(P) | MSC    |
| Chesnutt, James H.     | CPT(P) | MSC    |
| Crandell, Edward O.    | CPT    | MSC    |
| Cuthbert, Bruce N.     | CPT    | MSC    |
| Edwards, Horace F.     | MAJ    | MSC    |
| Epperson, Randall C.   | CPT    | MSC    |
| Finger, Randy          | CPT    | MSC    |
| *Fishburne, Francis J. | LTC    | MSC    |
| *Futterer, James W.    | MAJ    | MSC    |
| *Garrigan, James J.    | CPT    | MSC    |
| *Gillooly, David H.    | MAJ    | MSC    |
| Goodwin, R.H.          | CPT    | MSC    |
| Green, Emmanuel B.     | LTC    | MSC    |
| Greenfield, Gray R.    | CPT(P) | MSC    |

\*Also made a presentation at the Symposium

| Name                    | Rank   | Branch |
|-------------------------|--------|--------|
| *Harris, Cecil B.       | COL    | MSC    |
| Hartzell, Richard E.    | LTC    | MSC    |
| *Hendricks, Daniel E.   | CPT    | MSC    |
| *Hulsebus, Robert C.    | MAJ    | MSC    |
| *Ingraham, Larry H.     | MAJ    | MSC    |
| *Jeffrey, Timothy B.    | MAJ    | MSC    |
| Kitaeff, Jack           | CPT    | MSC    |
| Klusman, Larry E.       | CPT    | MSC    |
| *Knudson, Kathryn H.M.  | CPT    | MSC    |
| *Kowal, Dennis          | MAJ    | MSC    |
| *Lenz, Ernest J.        | MAJ(P) | MSC    |
| Livingood, James R.     | MAJ    | MSC    |
| Lockwood, Bruce R.      | CPT    | MSC    |
| Long, Bill R.           | 1LT    | MSC    |
| *Mangelsdorff, A. David | CPT    | MSC    |
| Manning, Frederick      | MAJ    | MSC    |
| Mays, Mary Z.           | CPT    | MSC    |
| McCarroll, James E.     | MAJ    | MSC    |
| *McCormack, John C.     | LTC    | MSC    |
| Middleton, Glenn Scott  | CPT    | MSC    |
| Nacev, Vladimir         | CPT    | MSC    |
| Neary, Richard S.       | CPT    | MSC    |
| *Nichols, Robert S.     | COL    | MSC    |
| O'Brien, Robert P.      | CPT    | MSC    |

| Name                    | Rank | Branch |
|-------------------------|------|--------|
| Parkison, Steven C.     | CPT  | MSC    |
| *Rath, Frank H., Jr.    | MAJ  | MSC    |
| *Rauch, Terry M.        | CPT  | MSC    |
| *Rhone, Teresa A.       | CPT  | MSC    |
| Ro'lins, Kenneth D.     | CPT  | MSC    |
| Rosenheim, Harold D.    | CPT  | MSC    |
| *Shoberg, John D.       | MAJ  | MSC    |
| Smith, Harold R.        | CPT  | MSC    |
| Sullivan, Rodney A.     | CPT  | MSC    |
| Thompson, James W.      | MAJ  | MSC    |
| Turaids, Dainis         | CPT  | MSC    |
| Venezia, Daniel J., Jr. | MAJ  | MSC    |
| Waddell, Thomas R.      | CPT  | MSC    |
| *Wilson, William L.     | LTC  | MSC    |
| *Worthington, Robert    | LTC  | MSC    |
| Zingale, Salvatore A.   | 1LT  | MSC    |
| Zitomer, Elaine         | 1LT  | MSC    |
| Zold, Anthony C.        | MAJ  | MSC    |
| *Zych, Kenneth A.       | MAJ  | MSC    |

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SUPPLEMENTARY COURSE CRITIQUE  
AMEDD PSYCHOLOGY SYMPOSIUM  
27-31 October 1980

Using the following numbered categories, give a global rating of the major presentations and workshops you attended.

4=Superior      3=Excellent      2=Good      1=Fair      0=Poor

| Presentation                                        | Rating (number) | Mean | Rank |
|-----------------------------------------------------|-----------------|------|------|
| 1. Behavioral Medicine (at USUHS)                   | _____           | 2.5  | 9    |
| 2. Parent Education (Walder)                        | _____           | 2.5  | 8    |
| 3. The Luria Neuropsychological Battery (Fishburne) | _____           | 3.5  | 1    |
| 4. DSM III (Poirier)                                | _____           | 1.7  | 11   |
| 5. Workshop on Combat Psychology (Rath)             | _____           | 3.1  | 4    |
| 6. Management of a CMHA (Worthington)               | _____           | 2.9  | 6    |
| 7. Contracting for Change... (McCormack)            | _____           | 3.0  | 5    |
| 8. Symposium: Combat Psychology                     | _____           | 3.2  | 3    |
| 9. Credentialing (Wellner, Hall)                    | _____           | 2.9  | 7    |
| 10. Forensic Psychology (Shapiro, Basham, Ross)     | _____           | 3.3  | 2    |
| 11. Symposium: Women in the Military                | _____           | 2.3  | 10   |

I would have preferred:

|                      | More | Less | Same |
|----------------------|------|------|------|
| a. Workshops         |      |      |      |
| b. Paper Sessions    |      |      |      |
| c. Symposia          |      |      |      |
| d. Invited Addresses |      |      |      |
| e. Task Groups       |      |      |      |



What is your MOS? \_\_\_\_\_

Please make additional comments if you wish.

REPRODUCED AT GOVERNMENT EXPENSE

AMEDD PROFESSIONAL POSTGRADUATE SHORT COURSE CRITIQUE  
(TEST)

The following questions have been designed to help us improve future courses conducted under the AMEDD Central Training Program. Your thoughtful consideration to each question (front and back) will be most appreciated.

TITLE OF COURSE

AMEDD Psychology Symposium

DATES

27 - 31 October 1980

1. HOW DO YOU RATE THIS COURSE COMPARED TO OTHER SIMILAR COURSES? (Check)

4. ☐ SUPERIOR 3. ☐ EXCELLENT 2. ☐ GOOD 1. ☐ FAIR 0. ☐ POOR ☐ I HAVE NOT ATTENDED ONE

Scale 0 - 4 Mean = 3.2

2. IN YOUR OPINION, HOW WAS THE ADMINISTRATIVE PROCESSING HANDLED? (Check)

4. ☐ SUPERIOR 3. ☐ EXCELLENT 2. ☐ GOOD 1. ☐ FAIR 0. ☐ POOR

Scale 0 - 4 Mean = 3.0

3. WHAT DID YOU THINK OF THE FACILITIES? (Check)

4. ☐ SUPERIOR 3. ☐ EXCELLENT 2. ☐ GOOD 1. ☐ FAIR 0. ☐ POOR

Scale 0 - 4 Mean = 3.2

COURSE CONTENT

4. LISTED BELOW ARE STATEMENTS CONCERNING THE COURSE YOU ATTENDED. PLEASE CIRCLE THE NUMBER WHICH BEST DESCRIBES YOUR FEELING ON EACH STATEMENT. THE RATINGS ARE:

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|-------------------|----------|---------|-------|----------------|
| 1                 | 2        | 3       | 4     | 5              |
|                   |          |         |       |                |

|                                                                                                                                               | 1 | 2 | 3 | 4 | 5 | MEAN |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|------|
| 1. The course outcomes or objectives were clearly communicated.                                                                               |   |   |   |   |   | 4.0  |
| 2. The course met the communicated outcomes or objectives.                                                                                    |   |   |   |   |   | 4.0  |
| 3. The materials presented were relevant to the objectives of the course.                                                                     |   |   |   |   |   | 4.3  |
| 4. The materials and techniques presented during the course will better prepare me to perform my professional duties.                         |   |   |   |   |   | 4.3  |
| 5. The professional-experiences-and-associations-developed during this course will assist me in making meaningful contributions to the AMEDD. |   |   |   |   |   | 4.6  |
| 6. This educational experience is worth the associated expenditure of funds and time.                                                         |   |   |   |   |   | 4.8  |

METHOD OF PRESENTATION

5. I WOULD HAVE PREFERRED (Check)

MORE LESS SAME

REMARKS

a. Slides

b. Films

c. Demonstrations

d. Lectures

e. Clinics

f. Field Trips